



French société anonyme with a share capital of €911,085,545 Registered head office: 22-30, avenue de Wagram 75382 Paris Cedex 08 552 081 317 RCS Paris

# EDF Group 2007 Document de Référence

This document is an unofficial translation of the French *Document de Référence* registered with the *Autorité des marchés financiers* (the "AMF") on April 14, 2008 under number R.08-022 in accordance with article 212-13 of the AMF General Regulations. This unofficial translation has been prepared by EDF for informational purposes only and has not been reviewed or registered with the AMF. The French *Document de Référence* may be used for purposes of a financial transaction if supplemented with an offering memorandum (*note d'opération*) that received a visa from the AMF. In the event of any ambiguity or discrepancy between this unofficial translation and the French *Document de Référence*, the French version shall prevail.

Pursuant to Article 28 of the European Commission Regulation N° 809/2004, the following information is incorporated by reference into this *Document de Référence:* 

- -Consolidated financial statements of the EDF Group for the year ended December 31, 2006, prepared in accordance with international accounting standards, as well as the accompanying statutory auditors' reports, set forth respectively in section 20.1 (pages 197 to 289) and section 20.2 (page 290 to 291) of the 2006 *Document de Référence* of the EDF Group;
- -Consolidated financial statements of the EDF Group for the year ended December 31, 2005, prepared in accordance with international accounting standards, as well as the accompanying statutory auditors' reports, set forth respectively in section 20.1 (pages 213 to 308) and section 20.2 (page 309) of the EDF Group's 2005 *Document de Référence*; and
- -The discussion of the EDF Group financial situation and results for the year ended December 31, 2006, presented on pages 128 to 162 in Chapter 9 of the EDF Group's 2006 *Document de Référence*.

Copies of this *Document de Référence* are available free of charge at EDF, 22-30, avenue de Wagram, 75382 Paris Cedex 08, and on the EDF website (http://www.edf.com) as well as on the AMF website (http://www.amf-france.org).

### Table of contents

....}

1.	Perso	ons responsible	6	10. Capital resources and cash flows	168
	1.1 1.2	PERSON RESPONSIBLE FOR THE DOCUMENT DE RÉFÉREN CERTIFICATION FROM THE PERSON RESPONSIBLE FOR TH		11. Research and development, patents and licenses	169
		DOCUMENT DE RÉFÉRENCE CONTAINING THE ANNUAL	6	11.1 KEY FIGURES	169
		FINANCIAL REPORT	0	11.2 R&D, AN ASSET FOR THE GROUP	169
2.	Audi	tors	8	11.3 INTELLECTUAL PROPERTY POLICY	170
	2.1	STATUTORY AUDITORS	8	12. Trend information	171
	2.2	ALTERNATE AUDITORS	8		
3.	Selec	cted financial information	9	12.1 PERFORMANCE IMPROVEMENT: "ALTITUDE" PROGRAM  12.2 DEVELOPMENT OF ELECTRICITY PRICES IN FRANCE	171 171
4.	Risk	factors	11	IN JANUARY AND FEBRUARY 2008  12.3 EFFECTS OF THE TRANSITORY REGULATED TARIFF	171
	4.1	RISK MANAGEMENT AND CONTROL IN THE EDF GROUP	11	FOR MARKET ADJUSTMENT	172
	4.2	RISK FACTORS	17	13. Financial outlook	173
	4.3	DEPENDENCY FACTOR	30	13. I mandai outlook	173
5.	Infor	mation about the company	31	14. Administrative, management and supervisory bodies and senior	174
	5.1	HISTORY AND DEVELOPMENT OF THE COMPANY	31	management	1/4
	5.2	INVESTMENTS	32	14.1 BOARD OF DIRECTORS	174
6.	Busir	ness overview	33	14.2 GENERAL MANAGEMENT	180
	6.1	STRATEGY	33	14.3 ABSENCE OF FAMILY TIES, CONVICTIONS AND CONFLICTS OF INTEREST OF EDF DIRECTORS	
	6.2	PRESENTATION OF THE EDF GROUP'S ACTIVITY IN FRANCE	CE <b>36</b>	AND EXECUTIVE OFFICERS	183
	6.3	PRESENTATION OF THE EDF GROUP'S INTERNATIONAL		4F. Damunavation and banafits	104
		ACTIVITY	69	15. Remuneration and benefits	184
	6.4	OTHER ACTIVITIES AND TRANSVERSE FUNCTIONS	93	15.1 COMPENSATION OF DIRECTORS AND CHIEF OFFICERS	184
	6.5	LEGISLATIVE AND REGULATORY ENVIRONMENT	103	15.2 PENSIONS, RETIREMENT FEES, AND OTHER ADVANTAGES	
7.	Orga	nizational structure	118	15.3 SHARE OWNERSHIP	186
			424	15.4 STOCK OPTIONS AND/OR PURCHASE OF SHARES	186
ŏ.	Prop 8.1	erty, plant and equipment INDUSTRIAL ASSETS	121 121	15.5 AGREEMENTS INVOLVING MEMBERS OF THE BOARD OF DIRECTORS	187
	8.2	SERVICE SECTOR REAL ESTATE ASSETS	121	16. Board practices	189
	8.3	EMPLOYERS' PARTICIPATION IN CONSTRUCTION EFFORT		16.1 POWERS OF THE BOARD OF DIRECTORS	189
		(PARTICIPATION DES EMPLOYEURS À L'EFFORT DE	424	16.2 BOARD OF DIRECTORS MEETINGS	189
		CONSTRUCTION, OR "PEEC")	121	16.3 BOARD OF DIRECTORS RULES OF PROCEDURE	190
	8.4	SUBSIDIZED HOME OWNERSHIP LOANS	121	16.4 EVALUATION OF THE BOARD OF DIRECTORS	190
9.	Oper	rating and financial review	122	16.5 COMMITTEES OF THE BOARD OF DIRECTORS	190
	9.1	KEY FIGURES	123	16.6 EDF ETHICAL APPROACH	191
	9.2	ECONOMIC ENVIRONMENT AND SIGNIFICANT EVENTS	124	16.7 STOCK EXCHANGE ETHICS CHARTER	192
	9.3	INTRODUCTION TO ANALYSIS OF 2007 RESULTS	135	16.8 INTERNAL CONTROL	192
	9.4	RESULTS FOR 2007	136	16.9 COMPLIANCE WITH THE CORPORATE GOVERNANCE	
	9.5	PRINCIPAL SENSITIVE ACCOUNTING METHODS INVOLVING USE OF ESTIMATES AND JUDGMENTS	137	PRINCIPLES IN FORCE IN FRANCE  17. Employees/Human resources	192 <b>193</b>
	9.6	SEGMENT REPORTING OF FINANCIAL INFORMATION	138		
	9.7	ANALYSIS OF THE CONSOLIDATED INCOME		17.1 GROUP WORKFORCE	193
		STATEMENTS FOR 2007 AND 2006	139	17.2 ELECTRICITY AND GAS INDUSTRIES EMPLOYMENT STATUS	195
		BREAKDOWN OF EBIT BY GEOGRAPHICAL AREA	145	17.3 ORGANIZATION AND WORKING HOURS	195
		CASH FLOW AND INDEBTEDNESS	152	17.4 SKILLS, TRAINING AND MOBILITY	195
		MANAGEMENT AND CONTROL OF FINANCIAL RISKS	157 165	17.5 EQUALITY OF OPPORTUNITY	197
		PROVISIONS OFF BALANCE SHEET COMMITMENTS	165	17.6 SOCIAL DIALOGUE AND EMPLOYEE REPRESENTATION	197
		SUBSEQUENT EVENTS	167	17.7 HEALTH AND SAFETY	199
	22				

17.8 REFORM OF THE PENSION SYSTEM AND THE COMPLEMENTARY HEALTHCARE BENEFITS SYSTEM 17.9 REMUNERATION POLICY	200 201 203	Appendix C Mandates exercised by the Directors and the Executive Officers during the last five years (outside EDF)	360
18. Major shareholders		•	500
<ul><li>18.1 BREAKDOWN OF SHARE CAPITAL AND VOTING RIGHTS</li><li>18.2 MARKET OF THE COMPANY'S SHARES</li></ul>	203 203	Appendix D Information made available to the	
18.3 AGREEMENT WHICH COULD LEAD TO A CHANGE OF CONTROL	204	public by the EDF Group during the last 12 months (Annual document prepared pursuant to Article 222-7 of	
19. Related party transactions	205	the AMF General Regulations)	366
<ul><li>19.1 RELATIONSHIPS WITH THE FRENCH STATE</li><li>19.2 RELATIONSHIPS WITH GAZ DE FRANCE</li></ul>	205 206	Appendix E EDF's financial statements and	
19.3 RELATIONSHIPS WITH THE AREVA GROUP	206	statutory auditors' report on the	
<b>19.4</b> RELATIONSHIPS WITH GROUP ENTITIES WITHIN THE SCOPE OF CONSOLIDATION	206	financial statements	372
20. Financial information concerning the company's assets and liabilities, financial position and profits and losses	207	Appendix F Concordance table – annual financial report	436
20.1 HISTORICAL FINANCIAL INFORMATION	207	Appendix G	
20.2 STATUTORY AUDITORS' REPORT ON CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED		Resolutions subject to the extraordinary Shareholders' Meeting on May 20, 2008	440
DECEMBER 31, 2007	308		
20.3 FEES PAID BY THE GROUP TO STATUTORY AUDITORS	310		
20.4 DIVIDEND POLICY	311		
20.5 LEGAL AND ARBITRATION PROCEEDINGS	312		
20.6 SIGNIFICANT CHANGE IN THE COMPANY'S FINANCIAL OR TRADING POSITION	318		
21. Additional information	319		
21.1 GENERAL INFORMATION REGARDING THE COMPANY'S SHARE CAPITAL	319		
21.2 INCORPORATION DOCUMENTS AND ARTICLES OF ASSOCIATION	322		
22. Material contracts	325		
23. Third party information and statement by experts and declarations of any interest	326		
24. Documents available to the public	327		
24.1 CONSULTATION OF LEGAL DOCUMENTS	327		
24.2 PERSON RESPONSIBLE	327		
25. Information on holdings	328		
Glossary	329		
Appendix A 2007 Report of the Chairman of the Board of Directors of EDF on Corporate Governance and internal controls	336		
Appendix B Statutory Auditors' Report, prepared in accordance with Article L. 225-235 of			
the French Commercial Code	356		

[THIS PAGE IS INTENTIONALLY LEFT BLANK]

In this Document de Référence (the "Document de Référence"), unless otherwise stated, the references to "Company" and "EDF" refer to EDF S.A., the parent company, and the references to "EDF Group" and "Group" refer to EDF and its subsidiaries and shareholdings.

In addition to the information contained in this Document de Référence, investors should carefully consider the risk factors described in section 4.2 ("Risk Factors"). These risks, or one of these risks, could negatively impact the Group's activity, situation or financial results. Furthermore, other risks, which have not yet been identified or considered as material by the Group, could have the same negative impact and investors could consequently lose all or part of their investment in the Company.

Moreover, this Document de Référence contains information relating to the markets in which the EDF Group is present. This information has been taken from surveys carried out by external sources. Considering the very rapid changes that characterize the energy sector in France and in the world, it is possible that this information could prove to be erroneous or no longer be up to date. The Group's activities could consequently evolve in a manner different from those described in this Document de Référence and the declarations or information appearing in this Document de Référence could prove to be erroneous.

The forward-looking statement within this Document de Référence, notably in section 6.1 ("Strategy"), could also be impacted by risks, uncertainties or other factors that may cause the future results, performances and achievements of the Group to differ significantly from the objectives expressed and suggested. These factors may include changes in economic and commercial environment or in regulations as well as to the factors set forth in section 4.2 ("Risk Factors").

Pursuant to European and French legislation, the entities responsible for the transmission and distribution of electricity within the EDF Group may not communicate certain information they gather within the framework of their activities to the other entities of the Group, including its Management. Similarly, certain data specific to generation and marketing activities may not be communicated to the entities responsible for transmission and distribution. This Document de Référence has been prepared by the EDF Group in compliance with these rules.

A glossary for the major technical terms is provided at the end of this *Document de Référence*, before the Appendices.

### Persons responsible

1



**1.1** Person responsible for the Document de Référence

**1.2** Certification from the person responsible for the Document de Référence containing the annual financial report

P.6

P.6

## 1.1

### Person responsible for the Document de Référence

Pierre Gadonneix EDF Chairman and Chief Executive Officer

## 1.2

# Certification from the person responsible for the Document de Référence containing the annual financial report

"Having taken all reasonable care to ensure that such is the case, I certify that, to the best of my knowledge, the information contained in this Document de Référence accurately reflects the facts and contains no omission likely to affect its meaning.

I certify that, to the best of my knowledge, the financial statements are prepared in accordance with accounting standards and that they give a true and fair view of the assets and liabilities, financial position and the income of the company and of all the companies included in the consolidation, and that the management report (*Rapport de gestion*) reports a true and fair view of the business trend, the income and the financial position of the company and of all the companies included in the consolidation and a description of the main risks and uncertainties they face.

I have obtained a letter from the statutory auditors certifying that they have verified the financial and accounting information provided in this *Document de Référence* and that they have read the document in entirety.

The consolidated financial statements for the financial year ended December 31, 2007, prepared in accordance with IAS-IFRS standards and included in this *Document de Référence* in Section 20.1 ("Historical Financial Information"), have been reviewed by the statutory auditors. Their report is set forth in section 20.2 of this *Document de Référence*.

Without qualifying their opinion, the statutory auditors, in their report on the consolidated financial statements for the year ended December 31, 2007, draw the reader's attention to:

- the valuation of long-term provisions relating to nuclear electricity production, as described in notes 2.2.1, 31.2 and 31.5 to the consolidated financial statements, results, as indicated in note 2.2.1, from Management best estimates. This valuation is sensitive to the assumptions made concerning costs, inflation rates, long-term discount rates, and forecast cash outflows as well as the results of current negotiations with Areva. Changes in some of these parameters could lead to a material revision of the level of provisioning;
- the approach adopted by EDF to present in the balance sheet its obligation to renew property, plant and equipment used for the French public distribution of electricity, as described in note 3, is based on the specific characteristics of concession contracts. The amount of contractual obligations as calculated and disclosed to the grantors in reports is used for evaluating the obligation. An alternative approach based on the discounted value of future

payments necessary for replacement of these assets at the end of their industrial useful life would result in a different representation of the obligation towards grantors. The impacts this approach would have had on the accounts are shown in note 3 for information purposes. Measurement of the concession liability concerning assets to be replaced is notably subject to uncertainty in terms of costs and disbursement dates.

The consolidated financial statements for the financial years ended December 31, 2006 and 2005, prepared in accordance with IAS-IFRS standards and French accounting standards respectively, have been reviewed by the statutory auditors. Their reports are set forth in section 20.2 of the 2006 *Document de Référence* and in section 20.2 of the 2005 *Document de Référence*. These financial statements and the corresponding reports of the auditors are incorporated by reference into this *Document de Référence* in accordance with article 28 of EC Regulation 809/2004, dated April 29, 2004.

Without qualifying their opinion, the statutory auditors, in their report on the consolidated financial statements for the year ended December 31, 2006, draw the reader's attention to:

- the valuation of long-term provisions relating to nuclear electricity production, as described in notes 2.2.1, 29.2 and 29.3 to the consolidated financial statements, results, as indicated in note 2.2.1, from Management best estimates. This valuation is sensitive to the assumptions made concerning costs, inflation rates, long-term discount rates, and forecast cash outflows as well as the results of current negotiations with Areva. Changes in some of these parameters could lead to a material revision of the level of provisioning;
- the approach adopted by EDF to present in the balance sheet its obligation to renew property, plant and equipment used for the French public distribution of electricity, as described in note 3, is based on the specific characteristics of concession contracts. The amount of contractual obligations as calculated and disclosed to the grantors in reports is used for evaluating the obligation. An alternative approach based on the discounted value of future payments necessary for replacement of these assets at the end of their industrial useful life would result in a different representation of the obligation towards grantors. The impacts this approach would have had on the accounts are shown in note 3 for information purposes. Measurement of the concession liability concerning assets to be replaced is notably subject to uncertainty in terms of costs and disbursement dates.

Without qualifying their opinion on the financial statements, the statutory auditors draw the reader's attention to the following matters in the report on the consolidated financial statements for the year ended December 31, 2005:

- The valuation of long-term provisions related to nuclear electricity production, as described in notes 4.1.1, 31.2 and 31.3 of the notes to the consolidated financial statements result from the Management's best estimates;
- In order to include its commitments relating to the renewal of the assets of the areas operated under concession for electricity public distribution in France in its balance sheet within the framework of existing standards, EDF favored an approach which relies on the specificity of concession contracts as described in note 5 to the consolidated financial statements.

Pierre Gadonneix Chairman and CEO of EDF

### **Auditors**



2.1 Statutory auditors

2.2 Alternate auditors

P.8

P.8

# **Statutory auditors**

Deloitte et Associés,

185, avenue Charles de Gaulle, 92200 Neuilly-sur-Seine, represented by Mr. Amadou Raimi and Mr. Tristan Guerlain,

KPMG SA,

Immeuble Le Palatin, 3 Cours du Triangle, 92939 Paris La Défense Cédex, represented by Mr. Jean-Luc Decornoy and Mr. Michel Piette.

Appointed by a decision at the ordinary Shareholders' Meeting of June 6, 2005 for a period of six financial years, this term expires at the end of the ordinary Shareholders' Meeting which will approve the accounts for the financial year ending on December 31, 2010.

The auditors designated above have thus certified the accounts presented in this Document de Référence.

### 2.2 **Alternate auditors**

BEAS,

7-9, Villa Houssay, 92200 Neuilly-sur-Seine.

SCP Jean-Claude André, 2 bis, rue de Villiers, 92300 Levallois-Perret. Appointed by a decision at the ordinary Shareholders' Meeting of June 6, 2005 for a period of six financial years, this term expires at the end of the Shareholders' Meeting which will approve the accounts for the financial year ending on December 31, 2010.

### **Selected financial information**



#### **Preamble**

Pursuant to European regulation 1606/2002 of July 19, 2002 on the adoption of international accounting standards, the Group's consolidated financial statements for the year ended December 31, 2007, are prepared under the international accounting standards published by the IASB and approved by the European Union for application at December 31, 2007. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and interpretations (SIC and IFRIC).

### **Key financial information**

The selected financial information, including the restated financial information for 2006, is taken from the EDF Group's consolidated financial statements at December 31, 2007, which have been audited by EDF's auditors. This financial information published on December 31, 2006, has been restated so as to take into account certain reclassifications in the income statement relating to allocations to provisions for the renewal of assets operated under concession (see note 3.2 and 4 in the annex to the consolidated financial statements for the year ended December 31,

The selected financial information below must be read in conjunction with (i) the consolidated financial statements included in section 20.1 ("Historical Financial Information") of this Document de Référence, and (ii) the operating and financial review contained in Chapter 9 of this Document de Référence.

### Extracts from the consolidated income statements

(in millions of euros)	Year Ended December 31, 2007	Year Ended December 31, 2006 <sup>(1)</sup>
Sales	59,637	58,932
Operating profit before depreciation and amortization (EBITDA)	15,210	14,393
Operating profit (EBIT)	9,991	9,356
Income before taxes of consolidated companies <sup>(2)</sup>	7,457	6,655
EDF NET INCOME	5,618	5,605

<sup>(1)</sup> The consolidated income statements, at December 31, 2006, has been restated to include certain reclassifications relating to net estimated expenses for the renewal of assets in concession (see notes 3.2 and 4 in the annex to the consolidated financial statements for the year ended December 31, 2007).

### Extracts from the consolidated balance sheets

	December 31,	December 31,
(in millions of euros)	2007	2006
Non-current assets	134,572	130,824
Current assets	51,308	48,122
Assets classified as held for sale	269	140
TOTAL ASSETS	186,149	179,086
Equity (EDF's share)	27,210	23,309
Minority interests	1,586	1,490
Non-current provisions	44,038	43,124
Other non-current liabilities	64,623	66,241
Current liabilities	48,578	44,806
Liabilities related to assets classified as held for sale	114	116
TOTAL EQUITY AND LIABILITIES	186,149	179,086

<sup>(2)</sup> The income before taxes of the consolidated companies is EDF's net income before income taxes, share in income of companies accounted for under the equity method, net income from discontinued operations and minority interests.

# Selected financial information



### **Extracts from the consolidated cash flow statements**

(in millions of euros)	2007	2006
Net cash flow from operating activities	10,222	11,795
Net cash flow used in investing activities	(5,428)	(13,769)
Net cash flow used from financing activities	(2,116)	(1,794)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	2,678	(3,768)

### Information concerning net indebtedness

	December 31,	December 31,
(in millions of euros)	2007	2006
Loans and other financial liabilities	27,930	28,142
Derivatives used to hedge liabilities	23	237
Cash and cash equivalents	(6,035)	(3,308)
Liquid assets	(5,682)	(10,154)
Net financial liabilities from companies disclosed in non-current liabilities related to assets classified as held for sale	33	15
NET INDEBTEDNESS	16,269	14,932





**4.1** Risk management and control in the EDF Group

**4.2** Risk factors P.17

**4.3** Dependency factor P.30

# 4.1

### Risk management and control in the EDF Group

# 4.1.1 General framework for managing and controlling the Group's risks

For many years the EDF Group has pursued a policy of managing its operational, financial and organizational risks (see "2006 report of the Chairman of the Board of Directors of EDF on Corporate Governance and internal controls" shown in Annex A to this document).

In 2003, given the changing context, the Group decided to implement an overall process for managing and controlling its risks, reinforcing existing plans, mainly by creating the Corporate Risk Management Division (*Direction du Contrôle des Risques Groupe*, or "DCRG").

The objectives of the management and control policy are to:

- allow identification and ranking of risks in all domains to gain increasingly firm control over them, under the responsibility of operational management;
- allow Officers, Directors and the Group's governance bodies to have a consolidated view, regularly updated, of the major risks and their level of control:
- contribute to safeguarding the Group's strategic and financial business plan:
- meet the expectations and inform external stakeholders on the risks of the Group and the process for their management.

The scope of risk management includes EDF's business and those of its subsidiaries under EDF's operational control. Hence it does not include subsidiaries not under EDF's operational control because of the rules on independent management (RTE-EDF Transport, EDF Réseau Distribution France – ERDF: regulated subsidiaries) and the entities under joint control (notably, EnBW, Edison or Dalkia International).

The scope of risk control includes EDF's business and that of its major subsidiaries in France and abroad. For EDF entities not subject to its operational control, risk control is implemented by the governance bodies of the entities.

#### 4.1.1.1 RISK MANAGEMENT AND CONTROL PRINCIPLES

As a general rule, operational and functional entities are responsible for managing risks that are within their scope of activity.

Risks are controlled by a system implemented independently of the risk management functions. This system ensures a standard approach for the identification, assessment and control of risks.

According to those principles, every six months EDF establishes a consolidated mapping of its major risks for the entities under its operational control

or under joint control (except for DALKIA International), based on their representations. The consolidated mapping is approved every six months, by the TOP 4 and presented to the Audit Committee of the Board of Directors (see section 14.2.3 ("TOP 4 and Executive Committee")).

P.11

The global risk mapping process backs up other processes implemented by the Group, in particular, the set-up of the audit program, the Insurance policy and its implementation (see section 4.1.3. ("Insurance")), the crisis management policy, the analysis of risks concerning matters examined by the Group's decisional bodies (such as TOP 4, the Committee of Commitments and Holdings, the Committee for Fuel Commitments, the Steering UpStream – Downstream – Trading Committee, etc.). The risks' control process in particular contributes to securing the investment and long-term commitments process, by ensuring compliance with the risk analysis methodology principles for matters presented to the Commitments Committees.

#### RTE-EDF TRANSPORT

In relation to RTE-EDF Transport, risk management and control are organized at the two management levels concerned:

- at the national level, RTE-EDF Transport's Executive Committee approves
  the risk mapping each year and entrusts a national manager with the
  responsibility of monitoring the identified risks. RTE-EDF Transport's
  Audit carries out the national audits sponsored by the Executive
  Committee, to which it reports its findings and recommendations;
- at the local level, each of RTE-EDF Transport's units and functional entities is responsible for its own analysis of the risks associated with its activities, controlling these through appropriate audits, and reporting on a national level.

#### **EDF RÉSEAU DISTRIBUTION FRANCE - ERDF**

ERDF identifies and manages its risks according to Group methodology. Risk control is implemented in application of the Group control principles by a procedure independent of ERDF's operational units, to verify, with reasonable certainty, control of its business.

### 4.1.1.2 MANAGEMENT AND CONTROL OF ENERGY MARKET RISKS

The risk factor relating to the energy markets is described in Section 4.2.2 ("Risks associated with the Group's activities") below.

In conjunction with the opening of the final customers' market, developments of the wholesale markets and on the international scene, the EDF group is exposed to price variations on the energy market which can have a significant impact on its financial results.

As a consequence, an "energy market" risk policy (concerning electricity,



gas, coal, oil products and CO<sub>2</sub> emission allowances) is set up by the EDF Group and applicable to EDF and entities under its operational control. This policy aims at:

- defining the general framework within which different entities of the Group carry out their operational activities (energy generation, optimization and distribution), as well as articulating it with EDF Trading;
- consolidating the exposure of the different subsidiaries and entities under EDF's operational control in the various structured markets related to energy:
- implementing a coordinated hedging policy at Group level.

Principles of operational management of the energy market risks are based on clarifying the responsibilities for managing energy market risks and distinguishing what forms part of generation assets management on the one hand, and trading on the other hand.

Generation and supply assets managers are responsible for implementing a risk management strategy minimizing the impact of energy market risks on their financial results. Yet there remains a residual risk which cannot be covered on the markets (insufficient market depth or liquidity, uncertainty on volumes, etc.).

Within the Group, positions relating to energy markets are mainly taken by EDF Trading, which is the trading entity of the Group. As such, EDF Trading is subject to a strict governance and control framework in line with the current practices in trading companies.

EDF Trading trades on organized or OTC markets through derivative instruments such as futures, forwards, swaps and options (whatever the accounting qualification at the Group level). In 2007, its commitment on the markets was subject to a VaR ("Value at Risk") limit (with a confidence interval of 97.5% per day) of €26 million with a stop-loss limit of €35 million. During this same year, the VAR fluctuated between €4.9 million and €27.6 million.

The table below shows the values for the years 2006 and 2007:

(in millions of euros)	2007	2006
VaR Limit (97.5% per day)	26	22
Stop-loss limit	35	30
Min VaR	4.9	4.3
Max VaR	27.6	18.5

The stop-loss has never been triggered since its institution. EDF Trading's exposure is strictly limited by daily limit monitoring, by the subsidiary's management, and by the control of energy market risk of the Group. In addition, automatic procedures which alert the members of EDF Trading's Board of Directors if loss or risk limits are breached (stop-loss limit) have been put in place.

Concerning EnBW<sup>1</sup>, sensitivity analysis relating to derivatives in portfolio on Decembre 31, 2007 (December 31, 2006) have been made:

- Concerning sensitivity to the electricity's price, a market prices fall (increase) of 15% would cause an increase (respectively a fall) of the annual income of 65.8 M€ on December 31, 2007 (against 49.3 M€ on December 31, 2006). A market prices fall (increase) of 15% would cause an increase (fall) of the equity capital of 131.4 M€ on December 31, 2007 (against 167.3 M€ on December 31, 2006);
- Concerning sensivity to the coal's price, a market prices fall (increase) of 15% would cause a fall (respectively an increase) of the annual income of 7.9 M€ on December 31, 2007 (against 13.9 M€ on December 31, 2006). A market prices fall (increase) of 15% would cause a fall (increase) of the equity capital of 62.3 M€ on December 31, 2007 (against 31.4 M€ on December 31, 2006);

- Concerning sensitivity to the petroleum's price, a market prices fall (increase) of 20% would cause an increase (respectively a fall) of the annual income of 2.6 M€ on December 31, 2007. The previous year, a market prices fall of 20% would have cause a fall of 5 M€ of the
- Concerning sensitivity to the gas's price, a market prices fall (increase) of 25% would cause a fall (respectively an increase) of the annual income of 6 M€ on December 31, 2007. The previous year, a market prices fall of 25% would have cause an increase of 1.1 M€ of the annual income;
- Concerning sensitivity to costs of the emission rights, a market prices fall (increase) of 50% would cause a fall (respectively an increase) of the annual income of 52 M€ on December 31, 2007 (against 13.9 M€ on December 31, 2006).

Concerning Edison<sup>2</sup>, the profit at risk (with a confidence interval of 97.5%) related to financial instruments that are set aside to cover industrial portfolio, was 50.9 million euros on December 31, 2007 (against 107.1 million euros on 31 December 2006).

The results are shown in the following table:

	December	31, 2007	December 31, 2006	
Profit at risk	Level of probability	Level of risk	Level of probability	Level of risk
		(in millions of euros)		(in millions of euros)
Edison Group	97.5%	50.9	97.5%	107.1

The data do not take into account trading transactions which constitute very distinct portfolios. This trading activity is framed by a Value at Risk limit (VaR) (with a confident interval of 95% per day) of 2.1 M€.

For an analysis of the fair value of the hedging derivative instruments

for the Group's raw materials, see notes 35.4 and 35.5 to the consoli-

dated financial statements for the year ended December 31, 2007. For details on agreements relating to raw materials which do not qualify as hedging requirements entered into by the Group, see note 36.1 to the consolidated financial statements for the year ended December 31, 2007.

<sup>2</sup>Source: Annual report Edison.

<sup>1</sup>Source: Annual report EnBW.

The process for controlling energy market risks for Companies in which the Group operates operational control is based on:

- a governance and market risk exposure measurement system, clearly separating management and risk control responsibilities;
- an express delegation given to each entity and formalized by risk management mandates establishing, among other things, the risk limits. These mandates allow the TOP 4 annually to set a consolidated risk profile on this scope, consistent with the financial objectives and thus to direct operational management of energy market risks (typically for a three-year period); and
- a specific control process given its strong interactions with the decisions made within the generation and supply businesses. The process involves the Group's Management and is based on a risk indicator and measure system, itself based on a control comprising in particular alert procedures in case the risk limits are exceeded.

Concerning Edison and EnBW, the "energy markets" risk policy and the control process are examined by the governance bodies of these companies

The consolidated exposure in energy market risks of the entities under EDF's operational control is presented to the COMEX on a monthly basis. The control processes are regularly reappraised and audited.

#### 4.1.1.3 MANAGEMENT AND CONTROL OF FINANCIAL MARKET RISKS

#### 4.1.1.3.1 FINANCIAL RISK MANAGEMENT FRAMEWORK

EDF has implemented a financial risk management framework (see section 9.10 ("Financial risks control and management")), which sets forth the policy and principles for managing the Group's financial risks (liquidity, exchange, interest rates and counterparty risks) and is applicable only to subsidiaries that are controlled operationally. The Group is subject to equity risk through shares held in the framework of cash activities and through dedicated assets that are set aside to cover long-term nuclear power plant decommissioning provisions, which is subject to an ad hoc risk management framework. The above-mentioned principles are associated with monitoring indicators and limits for controlling these risks, in particular, with the objective of limiting the volatility of the Group's financial charges.

Moreover, each year, EDF's Audit Committee and Board of Directors monitor compliance with the financial risk management framework and change it if necessary, in particular, with respect to the limits and the associated target financial ratios.

EDF also uses stress scenarios to analyze the sensitivity of positions in extreme conditions. This allows EDF to monitor its exposure to significant "atypical" market swing risks. EDF also uses stop-loss markers, which determine the threshold at which a position must be closed.

#### 4.1.1.3.2 CONTROL ORGANIZATION

The Financial Risks Control Division (*Département Contrôle des Risques Financiers*, or "DCRF") is entrusted with the task of controlling the Group's financial risks by ensuring the correct application of financial management principles. This organization also has the task of carrying out a second level check (methodology and organization) of EDF and entities under its operational control, as well as an operational check of the financing activities at the parent level of the Group. Reporting to the Corporate Finance & Treasury Division (*Direction Corporate Finance Trésorerie*, or "DCFT") of the Financial Department, the DCRF has strong functional links with the DCRG, in order to guarantee independence between the organization that controls these risks and the risk management activities which are subject to its control.

With respect to the activities of EDF's front office, daily risk indicator monitoring reports are sent by the DCRF to the Group Treasury manager, to the head of the front office and to the manager of the DCRF. They are immediately notified to act in the event that limits are breached. The DCRF reports weekly to the DCFT's Operational Coordination Committee. The DCFT's Strategic Committee periodically monitors compliance with the limits and rules on any specific changes to the limits which may be required.

In addition, regular internal audits ensure that controls have been carried out properly. The internal control device covers two levels of control:

- the internal control exercised at the level of the Corporate Finance & Treasury Division: the person in charge of the Financial Risks Control Division (*Département Contrôle des Risques Financiers*) carries out the internal control. A dedicated team is in charge of elaborating and performing an annual internal control plan. This plan includes several tasks ensuring the implementation of the control procedures and the respect of the framework for the front office.
- The control exercised by the Group Audit Department (*Direction de l'Audit Groupe*) which plans yearly audits on activities connected with financial markets and with the financial risk control.

In addition, EDF may hire, if necessary, external firms to audit the financial risks control process.

#### 4.1.1.3.3 LIQUIDITY RISK

The EDF Group aims to have, at any given time, adequate financial resources to finance its everyday business, the investments necessary for its future development, annual allocations to the dedicated assets portfolio to cover long-term nuclear commitments as well as to cope with any exceptional events. The objective of cash flow management is to search for resources at the best price and to ensure that they may be obtained at any given time. A description is set forth in Section 9.10.1 ("Liquidity situation and liquidity risk management").

EDF has instituted regular monitoring of the Group's liquidity risk, incorporated within the business management cycle, including stress scenarios. The Operational Coordination Committee also reviews liquidity needs on a weekly basis.

#### 4.1.1.3.4 EXCHANGE RATE RISK

Due to the diversification of its business and its geographic base, the EDF Group is exposed to exchange rate fluctuation risks, which may have an impact on the translation adjustments, Group balance sheet, financial charges, equity and results.

As a rule, the operating cash flows of the parent company and its subsidiaries are denominated in their local currencies, with the exception of flows associated with fuel purchases, which are mainly denominated in U.S. dollars, and certain flows associated with equipment purchases but for less significant amount.

A description is set forth in Section 9.10.3 ("Exchange rate risk management")

#### 4.1.1.3.5 SHARES' RISK

EDF is exposed to equity risk on securities held as dedicated assets constituted to hedge the cost of long-term commitments associated with nuclear power as well as on securities regarding its cash assets.

A description is set forth in Sections 9.10.5 ("Share risk management") and 9.10.6 ("Equity risk on EDF's dedicated assets management").



#### 4.1.1.3.6 INTEREST RATE RISK

The Group's exposure to interest rate variations is divided into two types of risk: the risk of a change in the value of fixed rate financial assets and liabilities, and the risk of a change in flows associated with variable rate financial assets and liabilities.

In order to limit its exposure to interest rate variations, the Group, within the framework of its general policy, sets principles with the objective of limiting the risk of a change in the value of invested assets or the possible increase in financial charges.

A description is set forth in Section 9.10.4 ("Interest rate risk management").

#### 4.1.1.3.7 COUNTERPARTY RISK

Counterparty risk is defined as the total loss that the EDF Group would sustain in its operating business and on the markets if any of its counterparties defaulted and consequently failed to perform its contractual obligations. These losses can be of various kinds: bankruptcy of a counterparty may lead the Group to record unpaid receivables (settlement risk), to lose contracts that generate profits (opportunity cost), to incur an overcost to replace dishonored agreements (replacement cost), to have to pay penalties to third parties if the failure of any of the counterparties resulted in the Group's being unable to honor its own obligations, etc.

The Group's entities that have a significant activity on the energy or financial markets (EDF, EDF Energy, EDF Trading and EnBW) have implemented a method to assign limits to each counterparty according to various criteria (agency ratings, indebtedness, cash flow, assets, equity) while taking into account the maturity and settlement dates and the nature of the transactions. Counterparty limits and their use are monitored regularly by such entities and the Group is organized for the proactive monitoring of its major counterparties to determine and update the Group's consolidated exposure to counterparty risk and for the establishment of rules and procedures to manage its consolidated exposures to counterparty risk.

In July 1, 2004, the Board of Directors approved the Group's new counterparty risk management framework applicable to EDF and entities under its operational control. This new framework provides for an organization to manage and monitor counterparty risk, with reporting procedures. There are three major principles at the core of this framework: (i) the organization's responsiveness, (ii) the independence of the risk control functions from the activities which generate risks and (iii) the responsibility of the entities for the management of their exposures. It also sets a limit for the Group which is applied to each counterparty.

## 4.1.2 Management of industrial and environmental risks

### 4.1.2.1 MANAGEMENT OF THE NUCLEAR SAFETY RISK BY THE GROUP

The risk factors relating to nuclear safety are described in Section 4.2.3 ("Specific risks relating to the Group's nuclear activity") below.

Like other operators, the Group assumes legal responsibility for the nuclear safety of its facilities. Nuclear safety includes all of the technical, organizational and human measures which are intended to prevent accident risks and to limit the effects of an accident, and which are taken at every stage of the life of a nuclear power plant (from design to operation and finally to decommissioning). The methods implemented as part of

the nuclear safety regime have allowed continuous performance improvement for the protection of employees against the effects of ionizing radiation. The whole nuclear safety process is permanently controlled, both internally and externally (see below and Section 6.2.1.1.3.2 ("Environment, safety and radiation protection")).

The construction of the French nuclear power fleet led to the institution of safety procedures which take into account, from the design stage onwards, the risks which may arise during power plant operation, whether these are associated with the operation of the facilities or to internal and external attack. These procedures rely mainly on the application of strict operating rules and on the Group's integrated skills (nuclear engineering, Research & Development ("R&D")) allowing for an earlier resolution of failures, continuous equipment appraisal, regular re-evaluation of safety margins, technical monitoring and the implementation of new high-performance techniques.

Maintaining and improving safety also relies on the concept of "in-depth defense", which provides for the systematic treatment of the risk of technical, organizational and human failures by interposing successive and independent lines of defense for facilities, process and organization.

The operating quality and safety of EDF's nuclear fleet depends on multiple internal inspections (mainly carried out by the Inspector General for nuclear safety and radiation protection, who reports directly to the Chief Executive Officer of EDF), and external inspections, mainly carried out by the French Nuclear Authority (*Autorité de sûreté nucléaire* "ASN") which became an independent administrative authority as of Law n° 2006-686 regarding transparency and safety in the nuclear field dated June 13, 2006. Nuclear power plants must comply with a benchmark whose objectives are established and controlled by the ASN. The crisis management organization to be implemented in the event of an accident is regularly tested through accident simulation exercises. Each year, approximately 100 exercises are organized for the entire French nuclear fleet. Approximately 10 of these are carried out at a national level.

The liability scheme applicable to European operators and the associated insurance are described in Section 6.5.4.2 ("Special regulations applicable to nuclear facilities").

#### 4.1.2.2 MANAGEMENT OF HYDROPOWER SAFETY RISK

Risk factors relating to hydropower safety are described in Section 4.2.2 ("Risks associated with the Group's activities") below.

The Group operates hydroelectric facilities under concession agreements or administrative licenses. As operator, it is responsible for their safety.

The main risks associated with these facilities or their operation are the risk of dams or related hydropower facilities bursting, the risks associated with operating the facilities during floods and the risks associated with level variations due to the operation of the facilities.

There are three strategic activities as for what concerns the management of hydropower safety: the survey of dams and related facilities, the managing of the sites during floods and the managing of flow or level variations (see Section 6.2.1.1.4.2 ("Hydropower safety")). In order to further improve the management of these risks, EDF launched in 1995 in France and in the overseas departments, quality assurance procedures for these three activities and consequently obtained their ISO 9001 certification by the end of 2003, in each of the Hydropower Operating Divisions. These certifications form the basis of a continuous progress program in hydropower safety management. They have recently been renewed by the certification authorities. In addition,

the detection, analysis of any potential incidents, implementation of corrective and preventive actions, feedback and the sharing of experience are the basis of the improvement process of the safety level of the facilities. Following the process started in 2005 in order to identify default risks for each kind of equipment and after several failures which made some facilities unavailable in the medium term (the Tuillères dam in Dordogne,etc.), EDF decided in 2006 to engage in a program of technical upgrading and reinforced maintenance of the sites for a total amount of approximately €560 million over the 2007-2011 period in order to renew certain facilities, maintain, on the long-term basis, a high level of hydropower safety and preserve, in the future, the technical performances of its fleet. This hydropower facilities renewal program, called "Hydropower Safety and Performance" (SuperHydro) will be 5-years long and will cause, during the works period, unavailabilities which will be more significant than those registered over the last few years.

Actions to make the general public aware of and to brief them on the dangers of hydroelectric facilities, implemented in 1996, are renewed and developed each year. The bursting of a dam or of a related facility may have serious consequences for persons and properties located downstream. The monitoring and maintaining of the facilities, which represent the principal measures to prevent the major risk of a dam bursting, are carried out under the control of the DRIRE (*Direction régionale de l'Industrie et de l'Environnement*). The 68 largest dams are covered by a special action plan implemented under the authority of the French *préfet*, pursuant to the French Law relating to major risks.

EDF has taken out a general civil liability insurance policy in relation to these risks (see Section 4.1.3.1 ("Civil liability insurance (not including civil responsibility for nuclear power)")).

### 4.1.2.3 MANAGEMENT OF RISKS ASSOCIATED WITH THE GROUP'S TRANSMISSION AND DISTRIBUTION FACILITIES

The risk factors relating to the Group's transmission and distribution facilities are described in Section 4.2.2 ("Risks associated with the Group's activities").

In relation to transmission and distribution works, the investments made take into account the safety of persons and property.

In addition, in France:

- for third parties, communication actions are directed, among others, at associations of fishermen, and farmers' cooperatives to remind them of the dangers of handling tools in the vicinity of power lines;
- for operators, interventions on transmission or distribution grids are subject to authorizations that include an audit of skills, complemented by site inspections carried out by line managers and the accident prevention expert for the unit in question.

The Group has taken out a general civil liability insurance policy in relation to these risks (see Section 4.1.3.1 ("Civil liability insurance (not including civil responsibility for nuclear power)")).

# **4.1.2.4** MANAGEMENT OF THE RISKS ASSOCIATED WITH INDUSTRIAL ACCIDENTS OR WITH ENVIRONMENTAL OR SANITARY IMPACTS

The Group's activities could, in the absence of adequate management, be the source of industrial accidents or significant environmental and public health impacts. The risks of adverse effects on the natural environment or on the health of people living locally or on Group and subcontractors' personnel are governed by rules relating to the environment and public health which are increasingly restrictive. The corresponding risk factors are described in Section 4.2.2 ("Risks associated with the Group's activities") below.

The Group's environmental policy incorporates developments on major environmental issues such as fighting climate change, adverse effects on biodiversity, etc.

The operational implementation of this policy is based on the deployment of an Environmental Management System in all of the Group's entities that have a direct or indirect environmental effect. The implementation of this Environmental Management System guarantees improved control of knowledge and compliance with regulations and anticipates changes to the regulations. This system was certified to ISO 14001 in April 2002 (see Section 6.4.3.1 ("Sustainable Development and Public Service Policy"). In relation to industrial accidents, the ISO 14001 standard involves taking a controlled set of systematic and planned actions, in particular, in relation to the prevention of major risks, emergency situation tests and safety management. Accordingly, the Group has taken out a general civil liability insurance policy (see Section 4.1.3.1 ("Civil liability insurance (not including civil responsibility for nuclear power))").

Each year, follow-up audits are carried out by an authorized external entity in the entities of the EDF Group within the scope of the certification. In 2005, the renewal audit confirmed the grant, for a period of three years, of the ISO 14001 certificate for the Environmental Management System implemented by the Group. A fresh renewal audit will take place in 2008.

#### 4.1.3 Insurance

To limit the consequences of certain events on its financial situation, the EDF Group has taken out insurance aimed at covering its principal risks of damage to property and civil liability and personal insurance. Its nuclear power risks are covered by a special civil liability scheme as set forth below.

Insurance management is led by the Group's Insurance Division, whose task is to propose and continuously optimize the policy of managing risks that are transferable to the insurance and alternative markets. Once the Group's policy has been set and approved by EDF's Board of Directors, the Group's Insurance Division organizes its implementation through EDF Assurances, an insurance brokering subsidiary within the EDF Group, and with major operators in the insurance and reinsurance markets.

The exchange of information between the Corporate Risk Management Division (see Section 4.1 ("Risk management and control in the EDF Group") below) and the Group's Insurance Division has been standardized so that both divisions benefit from a consolidated view, and one that is as comprehensive as possible, of the Group's risks. Starting from this shared vision, the Group can search for coverage that is matched to its insurable risks and that is consistent with the principles set forth in the Group's insurance policy.

EDF has decided to set up Group insurance policies largely extended to its subsidiaries that are controlled by EDF, so as first to unify risk coverage and rationalize their management and, second, to control the corresponding costs of insurance. For the damage risk, EDF is a member of the mutual fund Oil Insurance Limited ("OIL") so as to respond to the risks of damage (other than to aerial systems) to the Group's own property or to property under concession (EDF and its consolida-



ted subsidiaries in the US GAAP meaning), in particular nuclear plants (other than nuclear accidents), fossil-fired power plants, dams, systems' stepdown stations of transformation. OIL is a mutual insurance fund that is specific to the needs of the energy sector and which offers its members limited coverage for physical damage. Besides this basic coverage, EDF has set up additional insurance coverage for EDF and many of its French and international subsidiaries, including EDF Energy.

EDF Assurances carries out regular site inspections in partnership with internal divisions and the principal insurers. These inspections allow any risks associated with the Group's business to be identified and evaluated so as to reconcile the insurance coverage constantly with these risks.

The total insurance premiums for EDF and Group policies managed by EDF Assurances, including all types of coverage was €115 million in 2007, including €97 million expended by EDF.

EDF considers that the policies subscribed in accordance with the Group's insurance policy are consistent with the offer capabilities of the insurance market for operators of similar size in similar businesses worldwide, in particular, in relation to limits of coverage and deductibles. The nature and coverage of insurance may be altered at any time, depending on market conditions, on insurance policy rollout rates and on the assessment by EDF's Board of Directors of the risks and the adequacy of their coverage.

Insurance policies, in accordance with market practice, include exclusions, limits and/or lower limits.

### **4.1.3.1** CIVIL LIABILITY INSURANCE (NOT INCLUDING CIVIL RESPONSIBILITY FOR NUCLEAR POWER)

#### SCOPE: EDF AND SUBSIDIARIES CONTROLLED BY EDF

EDF has taken out a general civil liability policy covering it against the financial consequences of civil liability (excluding nuclear power) which may be incurred during its business as a result of damage caused to third parties. This specifically includes the risk of civil liability associated with a dam bursting, fossil-fired power plants, 400 kV substations in the Paris region, and other network equipment, together with those related to subsequent damage to the environment, for example by solid, liquid or gaseous waste.

These guarantees are purchased within the means available at acceptable prices on the insurance and reinsurance markets. The maximum coverage has been €1 billion. Pursuant to this policy, the share of risk kept by the Group, including Wagram Insurance Company Ltd's share, does not exceed €5 million per incident, although subsidiaries generally choose lower deductibles, better adapt to their financial capacities.

### **4.1.3.2** CIVIL LIABILITY INSURANCE FOR DIRECTORS AND CHIEF EXECUTIVE OFFICERS

### SCOPE: DIRECTORS AND CHIEF EXECUTIVE OFFICERS OF EDF AND OF SUBSIDIARIES CONTROLLED BY EDF

EDF entered into a "civil liability for directors and chief executive officers" insurance program covering them against monetary disbursements resulting from liability arising in connection with their duties as directors and officers.

#### 4.1.3.3 DAMAGE INSURANCE (NOT INCLUDING NUCLEAR ASSETS)

#### 4.1.3.3.1 CONVENTIONAL DAMAGE POLICY

### SCOPE: EDF, EDF ENERGY, AS WELL AS MANY OTHER FRENCH AND FOREIGN SUBSIDIARIES

Wagram Insurance Company Ltd. (an Irish insurance company whollyowned by EDF), insurers and reinsurers, provide extensions of coverage to the OIL coverage (additional coverage for damage to property up to a maximum of €600 million and, depending on the subsidiary, a reduction in deductibles). For this "conventional damage" policy, the Group's retention on a claim (including the deductible and the share of the risk covered by Wagram Insurance Company Ltd.) does not exceed €20 million.

This policy includes coverage for operating losses in the event of property damage for most of subsidiaries controlled by EDF, but not for EDF itself. The measures taken to prevent industrial and environmental risks and to limit their effects are described in Section 4.1.2 ("Management of industrial and environmental risks").

This "Damage" policy will be gradually extended to other subsidiaries controlled by EDF, as these have until now defined their own coverage policy for this type of risk.

EDF subscribes to policies covering specific worksite risks (worksite all-risks/construction all-risks). These policies are not part of a Group program but are subscribed to on a case by case basis for major worksites, such as the Flamanville EPR.

#### 4.1.3.3.2 **STORM COVER**

### SCOPE: AERIAL DISTRIBUTION NETWORK OF ERDF IN METROPOLITAN FRANCE AND OF EDE IN CORSICA

Following the storms of 1999, which had an overall impact on EDF's costs of approximately €1.5 billion, EDF wanted to obtain coverage for the consequences of property damage to the distribution network caused by storms, which represents the largest part of the exposure to risk. For this purpose, EDF entered into an innovative financial coverage agreement in December 2003 with CDC IXIS Capital Markets, which is triggered by an index tied to wind speeds recorded at Météo-France stations, weighted by the density and vulnerability of the distribution network in each region. The purpose of the agreement is to cover EDF's distribution network against the consequences of exceptional events and takes into account the expected reduction in risk exposure over the period as a result of the preventive investments made by EDF. This agreement is a flow exchange agreement where variable flows ("compensation") are owed to EDF if an index based on the wind speed exceeds a threshold value, calibrated according to a stochastic model so as to be exceeded once every five years. For 2007, the fixed flows ("premiums") for this agreement were €30 million. Maximum variable flows ("compensation") are €319 million.

EDF's other subsidiaries that have operating networks, and RTE-EDF Transport, are not covered against storm risks affecting aerial networks.

### **4.1.3.4** SPECIAL INSURANCE FOR NUCLEAR FACILITY OPERATIONS

#### 4.1.3.4.1 CIVIL LIABILITY

EDF's insurance policies have been taken out in accordance with the French Law of October 31, 1968, as amended by the French Law of June 16, 1990, which interpreted the obligations, in terms of the civil liability of nuclear facility operators, resulting from the Paris Convention (see Section 6.5.4.2 ("Special regulations applicable to nuclear facilities")). Accordingly, in order to guarantee the availability of the funds required as a result of such obligations, EDF opted to take out insurance policies with AGF, AXA Corporate Solutions, and European Liability Insurance for the Nuclear Industry (ELINI). The amounts covered by such policies conform to the limits of liability set in the event of an incident as stipulated by the regulation, at a nuclear facility as well as during transportation. For incidents on site, the total amount covered is €91.5 million per nuclear incident, such limit being available on a maximum of two occasions on each site over a three-year period. A special insurance covers nuclear civil liability following incidents during transportation. The limit of coverage depends on the regulations of the country (or countries) crossed during the journey; for accidents during transportation through France, the total amount covered is €23 million.

As of the implementation of Law n° 2006-686 of June 13, 2006 regarding transparency and safety in the nuclear field (see Section 6.5.4.2 ("Special regulations applicable to nuclear facilities")), EDF will have to adjust its insurance coverage so as to comply with the new guaranteed compensation cap (€700 million for what concerns the liability of a nuclear facility's operator). To this end, EDF will seek, under this new legislative framework, possible coverage solutions (nuclear pools, mutual funds, etc.). This provision will not be applicable until two-thirds of the signatory states will have ratified the Protocols amending the Paris and Brussels Conventions regarding civil liability in the nuclear field and for nuclear damages.

EnBW operates nuclear power plants in Germany. In this country, the nuclear facility operator's liability is strict and unlimited. Under the "ato-

mic" law, operators of nuclear power plants must put in place a financial guarantee in the amount of €2.5 billion per incident. EnBW has thus taken out a nuclear civil liability insurance covering up to €255.6 million, and entered into a "solidarity" contract with other parent companies of German nuclear installation operators (E.ON, RWE and Vattenfall Europe) providing for coverage of the remaining €2,244.4 million. This contract stipulates that in the event of an incident, and once the relevant nuclear operator and its German parent company have exhausted their own resources, the other companies will contribute to enable the operator to satisfy its obligations.

For more information on the regulations governing the nuclear operator's civil liability, see Section 6.5.4.2 ("Special regulations applicable to nuclear facilities") below.

#### 4.1.3.4.2 DAMAGE INSURANCE FOR NUCLEAR FACILITIES

In addition to coverage due to EDF's participation in the OIL mutual fund, property damage related to EDF's nuclear facilities in France (including following a nuclear accident), as well as nuclear decontamination costs are covered by an insurance policy which requires the intervention of the French nuclear pool and the European Mutual Association for Nuclear Insurance (EMANI), for a total capacity of €1,250 million above a deductible of €200 million.

EnBW enjoys, with a lower deductible, a similar coverage to that of EDF thanks to EMANI mutual fund and to the German pool.

# 4.2 Risk factors

The Group operates in an environment that is experiencing profound change, generating various risks, some of which are outside of its control and which are in addition to the risks inherent in carrying on its businesses. The risks that the Group believes are material for its businesses are described below. One or several of these risks could possibly have an adverse effect on the Group's activities and/or its results. Moreover, other risks, of which it is currently unaware, or which it believes are not material at present, may have the same adverse effect.

The risks identified below relate to:

- Risks related to the opening of European energy markets (see section 4.2.1 ("Risks related to the opening up of the European energy markets"));
- Risks related to the Group's activities (see section 4.2.2 ("Risks related to the Group's activities"));
- Risks specifically related to the Group's nuclear activities (see section 4.2.3 ("Special risks relating to the Group's nuclear activity"));
- Risks related to the Group's structure and its transformation (see section 4.2.4 ("Risks relating to the structure and changes within the Group")); and
- Risks linked to the structure of EDF share capital and the listing of its shares (see section 4.2.5 ("Risks related to the structure of EDF share capital and share listing")).

# **4.2.1** Risks associated with the opening up of the European energy markets

The Group must face increased competition on the European ener-

gy markets, in particular, on the French electricity supply market, which is its principal market.

#### IN FRANCE

Since July 1, 2007, the electricity market has been totally open to competition. All of EDF's clients now have the option of choosing their electricity supplier and can therefore approach any of its competitors (see section 6.2.1.2 ("Supply")). EDF has prepared to contend with its competitors. However, given its previous monopoly position, EDF is bound to lose a share of the market in France. The losses could become increasingly significant, notably due to the changing context of the competition (emergence of new players, mergers of existing operators, etc.). The decrease in EDF's market share could have, at constant consumption and price levels, a negative impact on the Group's sales. Finally, to achieve its objectives, EDF could be forced to increase its marketing expenditures or reduce its margins (especially in the event of price competition), which would have a negative effect on its profitability.

#### **OUTSIDE FRANCE**

Through its various subsidiaries in Europe, the Group faces different competitive situations, in particular on the electricity market:

- in the United Kingdom, the market has been totally open since the 1990s and is very competitive;
- in Germany, the market is also totally open, and is becoming increasingly competitive, in particular following the reduction in distribution and transmission tariffs;



- in Italy, the degree to which the market has opened up is comparable to that in France, and Edison is in a position to challenge the historical operator (Enel); and
- in the rest of Europe, and in particular in central and eastern Europe, the rate at which the markets open up accelerates for the new members of the European Union.

In some countries, or in some regions within a country, the Group must pursue a defensive strategy with respect to its market share, as in France. In other countries, in contrast, it must pursue an offensive strategy to conquer market share. The type of competition, the development of this competition, and its effect on the Group's activities and its results vary from one country to another. They depend on the degree of deregulation in the country in question and on various other factors over which the Group similarly has no control.

Within this context, even if the Group considers that the European electricity market presents opportunities, the Group may not be able to defend its market share or win expected market shares. It may also see its margins decrease, which would have a negative effect on its activities, its strategy and its financial results.

The legal and regulatory framework governing the liberalization of the energy sector is recent. This framework may change in the future and become more restrictive.

The Group's activities in France and abroad are subject to numerous regulations (see Section 6.5 ("Legislative and regulatory environment")). Moreover, and even in the European Union, where directives only define a general framework, laws and regulations may vary from one country to another

This legal and regulatory framework, which organizes the opening up of the energy sector, is relatively recent and does not necessarily provide all of the solutions to the difficulties raised by the opening up of those markets. It is therefore likely to change, which could be unfavorable to the Group. Future changes to the legal and regulatory framework, whether in France or abroad, may lead to additional costs, be inconsistent with the Group's development model, or change the competitive context in which the Group operates.

Risks associated with the fact that the Group will remain, in all likelihood for the next coming years, the largest operator in the French electricity market.

Although it has observed a decrease in its market share in France, EDF will in all likelihood remain the largest operator in the French electricity market over the next few years, particularly in generation and supply. The transmission and distribution activities (operated by RTE-EDF Transport and by ERDF) are required to be operated in a framework guaranteeing their independence from generation and supply activities in order to ensure non-discriminatory access to all users.

EDF intends to strictly comply with current regulations on competition and non-discrimination.

However, competitors have and may initiate lawsuits for non-compliance with these regulations, which may be decided against the Group's interests.

Furthermore, regardless of any legal action initiated by competitors, the authorities may make decisions that are contrary to the Group's economic or financial interests or to its model as an integrated and balanced operator (see, in particular, sections 6.5.1.1 ("European legislation —

Opening up the market") and 6.2.1.2.1 ("Opening of the French market for electricity sales and supply") below).

Finally, European countries may claim that the opening up of the French market is insufficient and implement measures intended to slow the Group's growth in their own countries.

This may have material, negative consequences for the Group's model, activities and financial results.

Laws and regulations that require the transmission and distribution activities to be managed independently limit control over these activities.

In accordance with current laws and regulations, EDF has instituted a management of its distribution network that is independent from its generation and sales activities and has transferred its distribution and transmission network activities to wholly-owned subsidiaries. EDF may be affected by the loss of control over certain operational decisions, which may have an impact on its operating costs, which is a significant element in the profitability of its transmission and distribution activities in France. At the same time, EDF will continue to bear the risks associated with transmission and distribution activities, liabilities to third parties and factors that may affect the profitability of transmission and distribution assets.

Such risks may also be present in countries where the Group owns or operates transmission or distribution networks where it is subject to similar regulatory restrictions.

## 4.2.2 Risks associated with the Group's activities

The Group operates facilities that may cause significant harm to the natural or human environment or for which accidents or external attacks may have serious consequences.

The risks specific to nuclear facilities are described separately in Section 4.2.3 ("Specific risks relating to the Group's nuclear activity") below.

With respect to hydropower facilities, even if it is not the owner but a licensee, the Group is responsible as the operator for the safety of the facilities. The main risks associated with hydropower facilities and their operations are the risk of dams or associated hydropower facilities bursting, risks associated with operating the facilities during floods, and the risk associated with flow or level variations due to the operation of these facilities. To these risks are added those associated with attacks or ill-intentioned acts of any kind.

The Group takes, during the construction and operation of hydroelectric facilities, and mainly with the collaboration of public authorities, measures for accident prevention and safety (see Section 6.2.1.1.4.2 ("Hydropower safety")). Nonetheless, the Group cannot guarantee that such events will never occur or that the measures taken will be fully effective in all cases, in particular, to deal with external events (in particular floods, negligence of third parties).

Regarding electricity transmission and distribution facilities, persons working in or near this type of facility may be exposed, in the event of an accident, error or negligence, to the risk of electrocution. In this field, the Group also implements accident prevention and safety measures. However, the Group cannot guarantee that these measures will prove sufficient in all cases.

Questions with respect to the risks to human health as a result of exposure to electromagnetic fields ("Champs Electromagnétiques", or CEM), in particular, from power lines operated by the Group, are being raised both in France and abroad. Based on numerous studies completed over the past 20 years, numerous international health organizations (including the World Health Organization ("WHO"), the International Agency for Research on Cancer, the American Academy of Sciences, the National Institute of Environmental Health Sciences, the English National Radiation Protection Board) consider, given currently available scientific information, that the existence of health risks as a result of exposure to CEM has not been proven: in a report published in June 2007, the WHO considered that the health risks, if any, were low. As a precautionary measure, the European Commission has established guidelines relating to exposure of the public and of workers to electromagnetic fields. The WHO, in its June 2007 report recommends compliance with these guidelines, with which the Group complies. The possible risks as perceived by the public or any element that demonstrates the existence of health risks could lead to the implementation of regulations imposing more stringent security measures for the operation or construction of public transmission or distribution networks.

Finally, and more generally, the Group operates or has operated facilities which, as currently operated, could be or have been the source of industrial accidents or environmental and public health impacts (such as inadequately controlled emissions, leakages in electricity supply lines insulated with oil under pressure, a failure of decontamination facilities, pathogenic microorganism, asbestos polychlorobiphenyls ("PCB"), etc.). In particular, large quantities of hazardous materials (mainly explosive or inflammable, such as gas and fuel oil) are stored in certain facilities. These facilities may be located in industrial areas where other activities experiencing similar risks are operated.

The Group implements in the framework of standards ISO 14001 (see section 4.1.2.4. ("Management of risks related to industrial accidents and environmental and health consequences of Group's activities")) measures both for accident prevention and repairs with respect to industrial accidents or harm to the environment caused by the facilities that it operates. These measures are intended, in particular, to protect the Group both against the risk of an accident (such as explosion, fire, etc.) occurring in its own facilities and against the risk of such an accident occurring in an adjoining facility.

However, the Group cannot guarantee that these measures will prove fully effective upon the occurrence of one of the events referred to above.

An accident of the type described in the preceding paragraphs would have serious consequences for persons and property and the Group could be found liable. The civil liability and damage insurance coverage taken out by the Group may prove to be significantly inadequate (see Section 4.1.3.1 ("Civil liability insurance (not including civil responsibility for nuclear power")). Further, the Group cannot guarantee that it will always maintain a level of coverage at least equal to that currently in place and at a cost that would not be higher.

Furthermore, such accidents may lead to the shutdown of the facility in question and, potentially, similar facilities that may be considered to present the same risks.

On the other hand facilities operated by the Group may be targeted by external attacks or ill-intentioned acts of any nature. Safety measures were provided for during the design of the facilities and sites and protective measures have been implemented by EDF. In addition and in collabo-

ration with the public authorities, safety measures to counter all forms of attack were reinforced.. Nonetheless, like any safety measures intended to counter an outside threat, the Group cannot guarantee that these will prove fully effective in all cases, including upon the occurrence of one of the events mentioned above. Nor can the Group guarantee that European and national legislation regarding the protection of sensitive sites and critical infrastructure will not become more restrictive, which could generate additional investment or costs for the Group.

An attack or ill-intentioned act committed on these facilities could have similar consequences to those of any of the accidents described above: (i) damage to persons and property, (ii) the Group's liability being sought on the basis of measures that are judged inadequate, or (iii) interruption to operations.

Any one of these events may have material, negative consequences on the Group's image, activities, results and financial situation.

A significant part of the Group's revenue is generated from activities subject to regulated tariffs, the level of which may have an impact on the Group's results.

In France, a significant part of EDF's revenue depends on regulated tariffs, either as set by decree, upon proposal by or after consultation with the French Energy Regulation Commission (Commission de Régulation de l'Energie, or "CRE"), after review by the Ministers of Economy and of Energy (the integrated tariff and the TURP, see Section 6.2.2.4 ("Tariffs for Using the Public Electricity Transmission and Distribution Networks (Tariff d'Utilisation des Réseaux Publics de transport et de distribution d'électricité, or "TURP")")). Tariffs are also set by regulatory authorities in other countries where the Group operates, including in the United Kingdom, Germany, China, Hungary and Slovakia.

These tariffs are negotiated regularly between operators and authorities. Public authorities and the regulator may decide to limit or even block tariff increases, with no change to the quality of service. These authorities can also change the requirements to benefit from such regulated tariffs (for what concerns France, see sections 6.5.1.2 ("French legislation") relating to Law n° 2006-1537 dated December 7, 2006 concerning the energy sector).

Even if regulated tariffs were revised in favor of the Group, it cannot guarantee that such tariffs will always be set at a level which would allow it to improve or maintain its profitability margins and its rates of return on investments, or at a level which would be compatible with an effective opening up of the markets. This could have a material, negative impact on the Group's activities and financial results.

In addition, in France, the provisions of Law n° 2006-1537 of December 7, 2006 concerning the energy sector in particular provided for the implementation for a period of two years, of a transitory regulated tariff for market adjustment ("TaRTAM") for the final customers who applied in writing to their supplier before July 1, 2007. Pursuant to an order dated January 3, 2007, the TaRTAM is of the same amount as the regulated tariff (no taxes included), plus an increase of 10%, 20% or 23% depending on the characteristics of the final consumer choosing the TaRTAM. In addition, always in France, the law relating to regulated tariff of electricity and gas allow customers who would have choosen a market offer for their accommodation, to go back to regulated tariff for this accommodation, the earliest six months after having brought out their eligibility, and subject to having ask for it before July 1, 2010. This law has widened to professional consumers (having a power lower or equal to 36 kVA) the right to come back to regulated tariff in case of moving but only for electricity. EDF cannot guarantee that the laws and regulations regarding these provisions allowing a come back to regulated tariff, will not be



extended, or that no others tariff plans will be introduced at their term. Nor can EDF guarantee these arrangements will not have a material adverse effect on the Group's activities and financial results, nor that this effect will not be higher, concerning the TaRTAM, than the one which EDF is currently able to estimate (see section 12.3 ("Effect of the transitory regulated tariff for market adjustment")), nor that the possibilities taken into account for such estimation will not change, in a manner that will significantly increase the adverse effect of the implementation of such tariff on the Group's activities and financial results.

EDF is responsible for certain commitments, namely public service commitments, paid for by mechanisms which could fail to provide complete compensation of excess charges incurred, or which could be questioned.

The new public service contract entered into by the French State and by EDF on October 24, 2005 outlines the public service commitments that EDF must provide and sets out compensation mechanisms in respect of EDF as regards these commitments (see Section 6.4.3.4 ("Public Service in France")).

EDF cannot ensure that the compensation mechanisms provided for by the laws and regulations applicable to it regarding its public service commitments and the implementation of regulated tariffs will provide for full compensation of the costs incurred by the Group in order to respect such commitments and/or implement such tariffs. EDF cannot guarantee either that these compensation mechanisms will not be called into question.

If any of these events should occur, it may have a negative impact on the Group's activities and its financial results.

The Group's activities require various administrative authorizations that may be difficult to obtain or whose grant may be subject to conditions that may become significantly more stringent; some activities are subject to special taxation.

The operations and development of the Group's industrial activities generation, transmission and distribution – require various administrative authorizations, at local and national levels, in France and abroad. The procedures for obtaining and renewing these authorizations can be drawn out and complex. Obtaining these authorizations is not routine and the conditions attached to obtaining them are not always unchanging or predictable. The EDF Group may accordingly be required to pay significant amounts to comply with the requirements associated with obtaining or renewing these authorizations (for example, the costs of preparing the application for the authorizations or investments associated with installing equipment required before the authorization can be issued). Its industrial activities may also be penalized. Delays, extremely high costs or the suspension of its industrial activities due to its inability to obtain, maintain, or renew authorizations, may have a negative impact on the Group's activities and profitability. In addition the Group may also have invested resources without obtaining the necessary permits and authorizations and therefore have to cancel or withdraw from a project, which may have a negative impact on its business or development.

Some of the Group's activities, for example, its nuclear, fossil fuel and hydropower generation activities in France, are subject to special taxation, which could increase. That would have a negative impact on the Group's financial results.

In some cases, the Group operates its generation, transmission or distribution activities within the context of concessions governed by public law and it is not always the owner of the assets it operates.

The Group does not always own the assets that it uses for its activities and in such case, frequently operates them under a concession governed by French public law.

Accordingly, ERDF does not own all the assets of the distribution networks but operates them under concession agreements negotiated with local authorities (see Section 6.2.2.2.2 ("Concessions")). Pursuant to the French Law of April 8, 1946 and the French Law of February 10, 2000, only EDF can be appointed by local authorities to operate their distribution networks, except networks operated by local distribution companies ("LDCs"). Therefore, when renewing a concession agreement, ERDF does not compete with other operators. Nonetheless, the Group cannot guarantee that such provisions will not be modified by law in the future or will not be challenged before the European Court of Justice or viewed to be in violation of European Law. In addition, EDF could obtain the renewal of these contracts on worse economic terms.

In France, RTE-EDF Transport is owner and the public transmission system operator according to standard concession specifications, which are currently being developed and which must be signed by the Minister of Industry (decree n° 2006-1731 of December 23, 2006) (see Section 6.2.2.1 ("Transmission – RTE-EDF Transmission") and section 6.5.2.2 ("French legislation")).

Hydropower generation facilities of 4.5 MW or more are also operated under concessions awarded by the French State. Renewal of these concessions is now subject to a procedure of invitations to tender (see section 6.2.1.1.4.4 ("Current and future hydropower generation issues")). The law on water voted on December 30, 2006, has in addition, eliminated the preferential right of the outgoing licensee. The EDF Group cannot guarantee that it will be able to obtain the renewal of the outgoing licensee will not under current rules, benefit from any indemnity. The rectifying 2006 Finance Law nonetheless provides for reimbursement subject to non-amortized expenditure incurred for modernization work or those for increasing production capacities. Nor can the EDF Group guarantee that renewal of a concession will be obtained under the same economic terms as the initial concession. Such events could have a negative impact on its activities and financial results.

The Group also operates under electricity distribution or generation concessions in other countries where it is present (including in the United Kingdom, Germany and Italy).

Depending on the conditions in each of these countries, the transmission, distribution or generation concessions may not be upheld or be renewed in its favor, with changes in the economic conditions in the concession specifications, which would have a negative impact on the Group's activities and its financial results.

The Group must comply with increasingly restrictive environmental and public health regulations that are the sources of costs and potential liabilities.

The Group's activities are subject to regulations for the protection of the environment and public health, which are increasingly numerous and restrictive. These regulations relate to the Group's industrial activities, energy generation, transmission and distribution, as well as to energy supply and energy-related services, which must, for example, incorporate the concept of demand-side management in their offers (for a description of environmental, health and safety regulations applicable to the Group, and future regulations likely to have an impact on its activity, see Section 6.5.4.4 ("Other regulations relating to the environment, nuclear facilities, health, hygiene and safety")).

In France, French Law n° 2005-781 of July 13, 2005, which defines energy policy guidelines (Loi de Programme fixant les Orientations de la Politique Energétique, or "LPOPE") (see Section 6.5.2.2 ("French legislation")), as amended and completed by the regulations in effect, contains certain energy saving provisions. The objective is to reduce, by an average of 2% each year by 2015, the final energy intensity, which is the ratio between energy consumption and the GDP. It was in this context that the government set energy saving targets for energy suppliers. To meet this target, EDF has chosen to implement a program of several energy efficiency actions in all its markets and aiming to allow EDF to comply with all of its legal and regulatory obligations. However, EDF cannot assure that such actions carried out by the Group in favor of the management of energy demand will be sufficient to reach the goals settled by public authorities, nor that the legal and regulatory requirements will not be reinforced, namely for what concerns energy saving obligations that will be set for the next three-year period. That could have an adverse financial effect on the Group.

Regulations relating to air quality and to emissions of major combustion facilities some of which will come into force during 2008, could become more restrictive. In particular, the CAFE strategy ("Clean Air For Europe") developed by the European Union sets up very ambitious objectives regarding main air emissions (see Section 6.5 ("Legislative and regulatory environment")). The adoption of this strategy during the first half of 2006 opened the work on redrafting the "Quality of Air" (deadline by 2010), "National Emission Ceilings" (NEC: for implementation by 2020) and "IPPC - "Integrated Pollution Prevention and Control" (for application in 2016) directives. New highly restrictive upper limits will also be created for some polluting products (NOx, SO<sub>2</sub>, dusts, etc.) reflecting the environmental performance BAT ("Best Available Technologies") standards; the national scope for derogations from BATs included in the current IPPC directive will only be incorporated in the revised Directive as rare exceptions. Those revisions will most likely lead to additional environmental constraints, which may have an adverse effect on availability, competitiveness, renewal, or development on the Group's thermal generation fleet.

The Group may also be required to make significant investments to comply with the implementation of the European directive relating to the greenhouse gas emission quota system. The greenhouse gas emission directive currently covers CO<sub>2</sub> quotas. Regulations transposing the current directive have been adopted or are being prepared in European countries. If the Group exceeded the CO<sub>2</sub> quotas allocated to it and purchased further quotas to make up the resultant shortfall, it could lead to significant additional expenditures compared to those provided for by the Group. For the second stage (2008-2012) National Quota Allocation Plans (PNAQ2) were validated by the European Commission during the last quarter of 2007. Overall the PNAQ2s are more restrictive than during the previous period: the one addressed by the end of December 2006 by France to the European commission reduced the volume of quotas awarded from 155.6 Mt to 132.8 Mt a year, and results in a 24% reduction in quotas awarded to the energy sector. In addition, the European Commission has announced on January 23, 2008, the publication of two regulations relating to greenhouse gas emission: one is a proposal of decision aiming to precise the objectives allowing European Union countries to reduce their emissions of greenhouse gases by at least 20% by 2020 compared with 1990 levels, the other is a proposal of decision which would modify the greenhouse gas emission right market. From 2013, in addition to the CO<sub>2</sub>, the quota system would be applied to others greenhouse gas emission taken into account by the Kyoto Protocol: CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, SF<sub>6</sub>. The system may notably change from 2012, toward a strengthening of the constraints. Thus significant uncertainties regarding evolution of this system persist. In addition, differences between the regulations applicable in the various countries in Europe for

the allocation of quotas could also lead to distortions in competition, to the Group's detriment.

Furthermore, the European Commission has also announced on January 23, 2008, the publication of a directive for the promotion of renewable energy, which will contain a target of 20% in the total energy consumption, whereas in 2005 this part was of 8.5% for the 27 Members State (see section 6.5.4.5.1.1 ("The 'Energy Package and climate change'")). This decision could lead Member States to transpose the legislation reinforcing the obligations of electricity generators to facilitate development of renewable energy, which could result in extra costs for the companies concerned.

In addition, a law concerning water and aquatic environments published on December 30, 2006 and the ensuing implementing decrees are expected to affect the tax regulation and the operating conditions of EDF's facilities (see section 6.5.4.4 ("Other regulations relating to environment, nuclear facilities, health, hygiene and safety)).

Finally, the Group is also subject to regulations concerning polychlorobyphenils (PCBs) and polychloroterphenils (PCTs) in various countries where it carries out its activities, (see section 6.5.4.4 ("Other regulations relating to the environment, nuclear faculties, health, hygiene and safety")). In France notably, the regulations require processing of all polluted equipment before December 31, 2010. Failure to meet the deadline could expose the Group to major legal actions.

Other current and future regulations in the environmental and health areas concerning Group's activities or assets may also have a material financial impact on the Group.

The Group may be found liable, even if it has not committed any fault or breached existing rules. The Group may also be found liable as a result of the fault or breach committed by entities which were not part of the EDF Group at the time of damage, if the Group has since taken over their facilities.

Current rules, and future changes to such rules, have resulted and are likely to continue to result in an increasing level of operating expenses and investments in order to comply with such rules. The Group may even be required to close facilities that cannot be made compliant with new rules. Furthermore, other rules, which may be more restrictive or which may apply to new areas, and which are not currently foreseeable, may be adopted by the relevant authorities and have a similar effect.

In addition, external perception by stakeholders of the Group's policy on sustainable development could worsen, resulting in a deterioration of the Group's image and extra-financial rating.

The growth of an integrated European electricity market may be slowed by a lack of cross-border transmission system interconnections.

As described in Section 6.3.1 ("Europe"), the growth of an integrated European electricity market is inhibited by a lack of cross-border interconnections. This situation limits exchange capacity between operators in different countries, namely the capacity to rapidly adapt the supply to the demand ("black-out risk"), and is allowing price differences to exist which would not be present in an efficient integrated European market. It is contributing to a slowdown in the emergence of efficient operators with a European dimension as it limits the options for synergies between companies within a same group located on different sides of a border.

Although there are currently several projects to develop interconnec-



tions, their construction has nonetheless been delayed, mainly by environmental, financial, regulatory and local acceptability considerations.

Therefore the absence of adequate interconnections between countries where the Group is based or their slow development may limit industrial synergies which the Group intends to achieve between its various entities or cause network interruptions in countries in which the Group is established, which could have a negative impact on its results, its business and prospects.

Widespread blackouts in France or in an area served by a Group subsidiary, in particular, if they are attributable to the Group, may have consequences for its activities, results and image.

The Group could be the source of a blackout (a blackout occurred in Europe on November 4, 2006) or be involved in one, even if the causal event occurred in another network or was attributable to another player.

The causes of these blackouts vary: local or regional imbalance between electricity generation and consumption, accidental interruption to the power supply, cascaded interruptions (more difficult to overcome in a market with cross-border exchanges), interconnection problems at borders, lack of investment and difficulty in coordinating operators on an open market.

Such electricity supply breakdowns (full-scaled or not) first have an impact on the Group's sales. They may also result in repair costs for reconnecting the network and lead to investment expenditures if it were decided, for example, to install additional generation or network capacity. Finally, they would have a negative impact on the Group's image with its customers, in particular, if the blackouts proved to be attributable to it.

Natural disasters, significant climatic changes, or any major event on a scale that is difficult to predict, could have a material negative impact on the Group's industrial and commercial activities.

In France, the storms of December 1999 and the heat wave in the summer of 2003 led to additional costs for the EDF Group. In addition to these events, other natural disasters (floods, landslides, earthquakes, etc.), other significant climatic changes (droughts, etc.), or any other event on a scale that is difficult to predict (large epidemic diseases, etc.) could affect the Group's activities.

Based on its experience with the above events, the EDF Group implements measures, which allow it to limit the consequences should such events be repeated. Accordingly, following the storms of December 1999, EDF initiated a program to secure its transmission and distribution networks. Following the heat wave in the summer of 2003, EDF drew up an "Unforeseen Climatic Events" plan in order to anticipate and prevent the consequences of such situations (as it was the case for the heat wave of summer 2006). The adoption of such measures can lead to costs in addition to those related to the cost of repairing the damage caused by the natural disaster and the loss of earnings corresponding to the interruption to supply.

In addition, after the storms of December 1999, EDF set up specific coverage against storm risk for its distribution network (see Section 4.1.3.3.2 ("Storm cover")). The Group cannot guarantee that this specific coverage will always be available or that its cost will not increase above its current level or that it will succeed in maintaining this coverage. Other than this specific coverage concerning the distribution network, the Group's aerial networks, including those owned by RTE-EDF Transport, are not covered for "damage to property". Owing to the absence of coverage,

any damage to these aerial networks could have a negative impact on the Group's financial situation.

Finally, in the event of a wide-spread sanitary epidemic, EDF created and tested, in 2006, a plan which aims to assure the continuity of electricity supply, depending on the intensity of the crisis, and at the same time guarantee the safety of the facilities and reduce the sanitary risks to which employees are exposed.

Despite the implementation of all such measures, the Group cannot guarantee that the occurrence of a natural disaster, a significant climatic unforeseen event, or any other event on a scale that is difficult to predict will not have significant negative consequences on its activities, its profits and its financial situation.

Risks associated with climatic conditions and seasonal variations in the business.

Electricity consumption has a seasonal nature, and depends namely on climatic conditions. Accordingly, electricity consumption is generally higher during winter months. In addition, available generated electricity may also depend on climatic conditions: low hydrolicity, heat waves which restrained generation due to the obligation to respect certain temperature limits for rivers in the downstream of the facilities.

The Group's profits consequently reflect the seasonal character of the demand for electricity and may be adversely affected by significant climate variations since the Group could have to compensate the reduction in the availability of economical generation means by using other means with a higher generation cost or by having recourse to wholesale markets at high prices.

Technological choices implemented by the Group may be outperformed by new technologies.

The Group's activities are based on a certain number of technological choices, which may be outperformed by other technologies, which may prove more efficient, more profitable and even more reliable. The use of these technologies by the Group's competitors may have the effect of reducing the competitive advantage, which the Group has through some of its technologies, and thus have a negative impact on its activities, financial results and prospects.

The occurrence of work-related illnesses or accidents cannot be excluded.

Although the Group does its best to comply with the laws and regulations concerning health and safety in the different countries in which it operates, and considers to have taken measures intended to ensure the health and safety of its employees and those of its subcontractors, the risk of work-related illnesses or accidents cannot be excluded. The occurrence of such events may lead to lawsuits against the Group and the payment of damages, which may prove material.

For a description of the measures taken by the Group with regards to ionizing radiation, see Section 6.2.1.1.3.2 ("Environment, safety and radiation protection").

Regarding asbestos, the Group has taken measures to treat materials containing asbestos, provide information and install protection, as described in Section 17.7 ("Health and safety"). For a description of ongoing legal proceedings, see Section 20.5 ("Legal and arbitration proceedings").

### The Group is exposed to risks on the wholesale energy and ${\rm CO_2}$ emission allowances' markets.

The Group operates on deregulated energy markets (mainly in Europe) as part of its generation, marketing and distribution activities. As such, the Group is exposed to price fluctuations on wholesale energy markets (electricity, gas, coal, oil) as well as on the CO<sub>2</sub> emission allowances market.

The Group manages its risks exposure by buying and selling on the wholesale markets and through long-term contracts. Apart from the oil products markets, these are new markets that are still developing. Therefore, a shortage of products or lack of depth can limit the Group's capacity to hedge its "energy market" risks exposure. In addition, these markets remain in part partitioned by country, as a result, among other things, of the lack of interconnections. They may thus experience significant increases or decreases in price movements and liquidity crisis that are difficult to predict. Such fluctuations may have either a favorable or an unfavorable impact.

The management of energy market risks is in line with the energy market risks policy adopted by the Group (see Section 4.1.1.2 ("Management and control of energy market risks")). The Group hedges its positions on these markets through derivative products such as futures, forwards, swaps and options negotiated on organized or overthe-counter markets. However, the Group cannot guarantee total protection, in particular, against significant price movements, which could have a material negative impact on its financial results.

# The Group is exposed to variations in the prices and in the availability of materials or services (other than fuels) which it buys for the carrying out of its activities.

In a context of rising raw material prices, the Group could face a sharp and sustained increase in the costs of certain critical products or services. Moreover, this increase could lead to a reduction of the offer if certain suppliers were forced to reduce their profit margins. Certain products or services are increasingly demanded, which could have an effect on their availability, in particular, products used for gas-fired combined cycle power stations, wind turbines and products and services in the nuclear field.

#### The Group is exposed to financial risks.

Because of its activities, the EDF Group is exposed to financial risks:

- Interest rate risk for the holdings financing activity and assets value;
- Exchange rate risk related to holdings in subsidiaries operating in currencies other than the euro, or to supply, notably of fuel and material, denominated in these currencies;
- Risk on dedicated assets, in particular related to the shares held as part
  of the management of dedicated assets constituted to hedge long-term
  commitment costs of EDF's nuclear activities and on shares held in the
  framework of cash activities;
- Liquidity risk;
- Counterparty risk inherent in contractual relationships.

The organization and management principles of these risks are described in Section 4.1.1.3 ("Management and control of financial market risks") and their measures of control are described in Section 9.10 ("Financial risks management and control") of this document. However, the Group cannot guarantee total protection, including in the event of significant movements in exchange rates, interest rates and equity markets.

# **4.2.3** Specific risks relating to the Group's nuclear activity

The EDF Group is the leading world nuclear operator. Nuclear electricity represents over 80% of its generation in France and the nuclear share in the EDF electricity mix is a major competitive advantage. Any event negatively affecting the nuclear business is likely to have greater consequences for the Group's activities, productivity, financial situation and results, than for those of its competitors, which generate proportionally less electricity from this source of energy.

### A serious nuclear accident in a foreign country may have material consequences for the Group.

Certain of the world's nuclear power plants do not meet the same level of safety, supervision and protection as those belonging to the Group. Whatever precautions are taken during their design or operation, a serious accident cannot be excluded and could result in public rejection of the nuclear business and lead to the competent authorities deciding to tighten noticeably operating conditions of power plants, or to cease the generation of electricity through nuclear means, or to cease authorizing, temporarily or permanently, operation of one or more nuclear plants. Such a decision cannot be excluded even outside the context of an accident. This would have a material, negative impact on the economic model, strategy, business, profit, financial situation and prospects of the Group.

### Due to its nuclear activities, the Group is exposed to substantial liability risks and possibly significant additional operating costs.

Even if the Group has implemented risk control strategies and procedures corresponding to higher standards for its nuclear activities, such activities, by their nature, still present risks. Therefore, the Group may face considerable liability as a result of, among others, incidents and accidents, breaches of security, ill-intentioned acts or terrorism, air crashes, natural disasters (such as floods or earthquakes), equipment malfunctions or mishandling in storage, handling, transportation, treatment or conditioning of substances and nuclear materials. Such events could have serious consequences, especially in case of radioactive contamination and irradiation of the environment, for persons working for the Group and for the general population, as well as a material, negative impact on the Group's activities and financial situation.

A nuclear operator assumes liability for the nuclear safety of its facilities. The liability scheme that applies to European nuclear facilities operators, and the associated insurance, are described in Sections 6.5.4.2 ("Special regulations applicable to nuclear facilities") and 4.1.3.4.1 ("Civil liability"). This scheme is based on the principle of strict liability for the operator. If there is an event which causes damage, the Group would be automatically liable within the limits of a financial ceiling established by French Law, regardless of the source of the event that caused the damage. The implementation of safety measures does not exonerate the Group from this type of liability.

The Group cannot guarantee that, in countries where it operates nuclear facilities, the liability ceilings established by law will not be increased or removed. For example, the Protocols amending the Paris Convention and the Brussels Convention, currently being ratified, provide for these ceilings to be raised. In addition, the Group cannot guarantee that the insurance policies covering this liability will always be available, or that their cost will not increase from their present level, or that the Group will always succeed in maintaining these insurance policies.



Finally, damage to EDF's nuclear facilities is covered by an insurance policy (see Section 4.1.3.4.2 ("Damage insurance for nuclear facilities")).

Despite this coverage, any event that causes significant damage to an EDF nuclear facility could have a negative impact on the Group's business, financial results and financial situation.

### The nuclear activity of the Group is subject to particularly detailed and restrictive regulations that may increase in severity.

The nuclear activity of the Group is subject to detailed and restrictive regulations, with, notably in France, a system for the monitoring and periodic re-examination of operating authorizations, which primarily take into account nuclear safety, environmental and public health protection, and also national safety considerations (terrorist threats in particular). These regulations may be subject to significant tightening by national and European authorities (for a description of the "nuclear package" and the French Law relating to transparency and safety in the nuclear field, see Section 6.5.4.2 ("Specific regulations applicable to nuclear facilities")). This could result in increased costs of the Group's nuclear fleet, which would have a negative impact on its financial situation

Furthermore, a tightening-up of the regulations or any non-compliance with the regulations in force could impose a temporary or permanent shut-down of one or more nuclear plants.

### For its nuclear activity, the Group depends on a limited number of contractors.

Even though the Group operates a supplier diversification policy within its nuclear business, it is currently dependent on a limited number of contractors

This situation:

- limits competition between suppliers; and
- creates a risk of exposure to failure of one of these suppliers.

This could have a negative impact on the Group's results and financial situation.

### The Group is exposed to variations in uranium procurement conditions and conversion and enrichment services conditions.

Nuclear fuel purchases are part of the Group's operating costs.

EDF purchases uranium, conversion services and enrichment services through long-term contracts containing hedging mechanisms against price movements allowing it to reduce the impact of the price fluctuations. The main supplier is the Areva group, but EDF is pursuing a policy of diversification by buying supplies from other producers (see Section 4.3 ("Dependency factor") and Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues")). Prices and available quantities of uranium and conversion and enrichment services are subject to fluctuations resulting from factors, mainly political and economic which the Group cannot control (in particular, increased demand in the context of worldwide expansion of nuclear energy or shortages linked, for example, to an operating accident in a uranium mine).

The Group cannot guarantee that the protection mechanisms in place in its supply contracts and its diversification policy will protect it completely against drastic or significant price increases. The Group cannot guarantee

that when these long-term contracts expire, it will be able to renew them, in particular, at price conditions that are equally favorable. Notwithstanding the moderate role that uranium supply costs play in the generation costs for nuclear power and the delay of several years between buying uranium and using it in a power plant, drastic and significant variations in the price of uranium may have a negative impact on the Group's financial results.

#### Risks relating to the transportation of nuclear fuel.

The transportation of new or used nuclear fuels is an operation that requires special and restrictive safety measures. These constraints could increase further, generating additional difficulties and costs for the Group. Furthermore, several factors that are outside of the Group's control (such as opposition by local residents or anti-nuclear associations, for example, in the form of demonstrations to prevent nuclear material from being moved) may slow these operations. The operation may also be interrupted, in particular, in the event of an accident. As a result, EDF may be required to slow or interrupt some or all of the generation on the sites in question, due to either the abstention of deliveries of new fuel assemblies, or the saturation of storage facilities on the sites, which could have a negative impact on the Group's financial results.

# The nuclear fleet operated by the Group is highly standardized. As a result, any defect in design or construction of a facility may have to be corrected on the other units.

The fleet of nuclear facilities operated by the Group in France is highly standardized (see Section 6.2.1.1.3.1 ("EDF's nuclear fleet")). This represents an advantage for the Group: it allows the Group to achieve economies of scale in equipment purchases and engineering, to apply improvements made to its newest power plants to its entire fleet and to anticipate, in the event of a malfunction in a facility, the measures to be taken in the others.

This standardization carries the risk of a malfunction that is common to several power plants or series of power plants. The Group is or has already been and cannot guarantee that it will never again be confronted with burdensome or costly repairs or modifications, to be carried out on all or part of the fleet, or that an event will not occur which may have an impact on the operation of the fleet, bringing about a temporary outage or closure of all or part of the fleet.

Such an event may have a negative impact on the Group's financial results and its activities.

### EDF may not be able to operate its nuclear power plants over a period of at least 40 years.

EDF estimates that a lifespan of 40 years is now technically achievable due to the measures taken and resources used to achieve this objective. EDF follows a high-level R&D policy relating to the long-term behavior of materials. In addition, the maintenance and investment policy has been adapted to improve the degree to which it takes into account risk and knowledge of ageing phenomena. Operation over an even longer period is feasible, in light of the extended lifespans agreed to by the competent authorities in the United States which concern nuclear facilities of similar technology (PWR).

However, EDF's ability to operate its nuclear facilities over a period of 40 years or longer subject to authorizations by safety authorities, in particular, at the time of in-depth safety inspections every 10 years. The Group cannot guarantee that it will obtain the necessary authorizations at the appropriate time, or that the authorizations will not be obtained,

subject to the conditions requiring the Group to carry out further expenses or investments.

Nonetheless, the Group has based its assumptions for calculating accounting items linked to the lifespan of its nuclear fleet on a lifespan of 40 years (including depreciation and amortization and provisions, etc.). If the safety authorities opted for the closure of some units or power plants within 40 years, this would require accelerated replacement of the corresponding generation capacity by additional investments or recourse to electricity purchases on the market. It would also be necessary to review the depreciation and amortization plan to reappraise the residual lifespan of the power plants in question. This would have a material adverse impact on the Group's financial results and financial situation.

### Construction of the EPR could encounter problems or not be completed.

The Group is involved in the carrying out of the construction of the European Pressurized water Reactor ("EPR") in Flamanville (see Section 6.2.1.1.3.5 ("Preparing for the future of the nuclear fleet")) in order to renew its fleet of nuclear generating facilities. However:

- the Group might not obtain or see called into question by court rulings, the necessary authorizations required to begin the construction and operation of the EPR;
- with regards to a first-of-a-kind reactor, technical difficulties or other difficulties could occur during its development and construction and during the early stages of its operation. These difficulties could slow or hinder the construction of the EPR and its commissioning, increase its overall cost or affect its performance.

The EPR program for renewal of the fleet of generation facilities is strategic for the Group's future. Any event leading to delay or clogging of this program, or affecting, the construction, of the first-of-a-kind EPR or subsequent units would thus have a material adverse impact on the Group's activity and financial situation.

## The Group remains liable for all radioactive waste from its nuclear power plants, especially long life, high-level waste from burnt fuels.

The nuclear fuel cycle is described in Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues"). In France, as described in this section, as an operator and producer of waste, EDF is legally responsible for burnt fuels from the moment they leave the power plant, during their processing operations and during their long-term management, and it assumes this responsibility in accordance with guidelines set forth by public authorities and under their control.

In particular, as a nuclear operator or producer, the Group may incur liability resulting from regulation of waste in the event of an accident and damage to a third party or the environment through these burnt fuels or waste, even if they are handled, shipped, warehoused or stored by operators other than EDF (especially the Areva group and ANDRA), in particular in the event of failure of such operators. If EDF were acknowledged as responsible for damages caused to third parties and/or the environment, the specific civil strict liability scheme applicable to nuclear operators would apply, within the ceilings specified by this scheme (see Section 6.5.4.2 ("Special regulations applicable to nuclear facilities")).

In France, long-term radioactive waste management was the subject to several initiatives undertaken in the framework of the French "Bataille" Law, and the passing of program Law n° 2006-739 dated June 28, 2006 relating to the sustainable management of radioactive materials and waste (see

Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues")). The Group cannot guarantee that all long-life high and medium activity waste will constitute "ultimate radioactive waste" in the sense of Article 6 of the Law n° 2006-739, and that as a consequence this waste will be directly stored in deep geological layers. The Group cannot guarantee either the time required for the public authorities to authorize such a storage, which continues to result in ongoing uncertainties with respect to waste, liability and the resulting costs for EDF. The occurrence of any of these events would have a negative impact on the Group's financial results and financial situation.

### The provisions made by the Group for burnt fuel processing operations and long-term waste management could prove insufficient.

The Group has made provisions for management operations (transmission, processing, conditioning for recycling) of burnt nuclear fuel (see note 31.3 to the consolidated financial statements for the year ended December 31, 2007) using the price and volume conditions in the agreement signed with Areva in August 2004 which covers the period from 2001 to 2007. The amount of provisions currently made to cover the period from 2007 onwards could prove insufficient if the renewal conditions of this contract over this period, currently being negotiated, proved more onerous than those currently applicable (for 2008, an interim agreement has been signed).

EDF had made provisions for long-term waste management based on an assumption of geological storage, and the conclusions reached in 2006 by the working group comprising ANDRA, public authorities and producers of nuclear waste (see note 31.3 to the consolidated financial statements for the year ended December 31, 2007, and Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues – B. Back-end")). If the program Law n° 2006-739 of June 28, 2006 relating to the sustainable management of radioactive materials and waste reinforces, without excluding other fields of complementary research, that the "ultimate radioactive waste" must be stored in deep geological layers, the Group cannot guarantee that all long-life high and medium waste will be considered as such and nor the length of time in which this type of storage, if it was held, could be carried out. In consequence, the final cost of long-term waste management of the Group could exceed the provisions made in its accounts. EnBW has also made provisions to cover its long-term nuclear commitments. The Group cannot guarantee that the amount of these provisions will be sufficient.

The evaluation of these provisions is sensitive to the assumptions made in terms of costs, inflation rate, long-term discount rate and payment schedules. Given these sensitivity factors, changing the parameters may lead to significant revision of the provisions accounted for.

If such was the case, the inadequacy of the provisions for these commitments may have a material negative impact on the Group's financial results and financial situation.

# Decommissioning of the existing fleet of nuclear facilities may present currently unforeseen difficulties or be much more costly than currently expected.

The decommissioning of the EDF and EnBW nuclear fleets is described in Section 6.2.1.1.3.6 ("Decommissioning of nuclear power plants") and 6.3.1.2.3.1 ("Electricity businesses"). Given the size of the Group's nuclear fleet, its decommissioning represents a highly technical and financial challenge.

While the Group has evaluated the challenges, in particular technical, which this decommissioning brings (particularly the decommissioning of first generation power plants) and has identified the solutions to be deve-



loped, it has never dismantled nuclear power plants similar to those currently in service. The Group has made provisions to cover the costs associated with decommissioning.

EnBW must also decommission its power plants and has made provisions for this.

However, the Group cannot guarantee that the provisions made will be sufficient. Their insufficiency would have a negative impact on the Group's financial results and financial situation.

Dedicated assets reserved by the Group to cover the costs of its long-term commitments in the nuclear business (such as radioactive waste and decommissioning) may prove insufficient.

As of December 31, 2007, the market value of the portfolio of dedicated assets for EDF was approximately €8.6 billion, against €6.3 billion on December 31, 2006 (see Section 6.2.1.1.3.6 ("The decommissioning of nuclear power plants — Assets available to cover long-term nuclear power-related commitments (operating cycle excluded)")). These assets are built up gradually on the basis of spending estimates and the time-frame which the Group will have to meet.

In September 2005, EDF decided to speed up the building of these dedicated assets to cover the whole basis in 2010. The Law of June 28, 2006 relating to the sustainable management of radioactive materials and waste supported this decision, since it imposes a total cover of long-term nuclear commitments on nuclear operators, (excluding operating cycle) within a 5-year period of time after the law came into force. Furthermore, each operator is obliged, in 2007 and every 3 years following, to transmit a report supporting in particular the expenses relating to the decommissioning of nuclear power plants, the calculation methods of said provisions and the constitution of consequent dedicated assets to the relevant administrative authority. In addition, the decree dated February 23, 2007 and the order of March 21, 2007 have specified the process for financial securitization of the nuclear expenses by establishing an indexation of the totality of such charges, by distinguishing those relevant to the operating cycle, setting a framework for their evaluation as well as the discount rate retained by nuclear plant operators to calculate provisions pertaining to it. These texts set the rules of investment and management for the dedicated assets and organize the role of the Group's management, as well as the control plan to be implemented by the nuclear plant operators (see Section 6.2.1.1.3.6 ("The decommissioning of nuclear power plants – Assets available to cover long-term nuclear power-related commitments (operating cycle excluded)")).

EDF's dedicated assets may, nonetheless, be judged insufficient according to the June 28, 2006 law's implementation regulations or by the administrative authority, and lead to adjustment measures (and notably a complementary allocation for the dedicated assets). These dedicated assets can also, prove to be insufficient at the moment of actual payment, if actual costs are appreciably different or if the disassembly and storage costs schedule is modified. This would have a material, negative impact on the Group's financial situation. Moreover, stricter national (in particular those which could have an impact of the basis of the dedicated assets to be constituted by EDF) or European regulatory constraints may lead to increasing demands for the constitution of dedicated assets and have an effect on EDF's financial situation.

Finally, these assets are constituted and managed in accordance with strict, prudential rules (see Section 6.2.1.1.3.6 ("The decommissioning of

nuclear power plants - Assets available to cover long-term nuclear power-related commitments (operating cycle excluded)")). The Group cannot, however, guarantee that variations in the financial markets will not have a material negative impact on the value of these assets (see Section 9.10.6 ("Financial risk on EDF's dedicated assets management portfolio") for a sensitivity analysis).

# 4.2.4 Risks relating to the structure and changes within the Group

It is possible that the Group's development strategy cannot be implemented in accordance with the goals defined by the Group.

In particular, the implementation of the gas strategy may face significant problems.

Development of the Group's gas business is a major issue, both for what concerns the use of gas in electricity generation and the development of dual gas/electricity offers. Furthermore the competitive environment is evolving in France and in Europe with the emergence of new players or mergers of energy companies.

Demand for gas in Europe is growing and there are significant quantities of untapped reserves throughout the world. However, sources of supply are remote and capacities for gas transport (by gas pipeline or by liquefied natural gas (LNG) tanker), LNG terminals and capacities for storage are still limited. To satisfy its gas needs, the Group must not only have access to competitive sources of supply, but also to logistical infrastructures (such as storage, gas pipelines and LNG terminals) to move its gas within a perimeter close to its points of consumption and to produce synergies between its different entities (including those which it does not control) while coordinating and interconnecting its positions.

The Group cannot guarantee that it will be able to either access these gas assets, or acquire them or participate in their development, or achieve the expected synergies, under acceptable financial conditions.

Any one of these factors could slow the development of the Group's gas strategy, which would have a negative impact on its activities, its financial results and its prospects.

The Group intends to develop and consolidate its offer of service integrated solutions, notably its energy eco-efficiency services, to increase sales per customer as the energy market in Europe opens up to competition and to deal with issues relating to energy efficiency and sustainable development.

The energy-related services market is very competitive, and the energy efficiency market, though still an emerging one, possesses a strong potential for development. The Group cannot guarantee that its energy-related services offer will continue to grow successfully.

If the Group cannot implement its development policy in the area of energy-related services, this may have a negative impact on its financial results and prospects.

The Group intends to continue its development in the electricity industry in France and abroad, in line with its industrial project, depending on its business model in each area and in light of any relevant experience (upstream/downstream balance, commercial strategy, development of renewable energy sources or in other production methods: nuclear, hydropower, coal, gas combined-cycle, etc.). It is thus implementing programs for re-organization, increasing profitability, (see risk factor below entitled "The Group has implemented programs to improve its operating and

financial performance and to reinforce its financial flexibility") and disposals.

Regarding its expansion in nuclear generation, the Group may fail to implement international projects to which it is committed or may implement them under unsatisfactory economic, financial and legal conditions.

Indeed, the EDF Group is committed through partnerships to international projects for the construction and operation of nuclear power plants (in the USA, China, etc.). During the development phase, these projects require obtaining administrative authorizations, licenses and permits. These are large-scale construction sites calling for substantial investment. The financing conditions have yet to be confirmed. Furthermore, the regulatory framework in some countries is in the process of being updated, which could have an impact on EDF's commitments and liability. Even with the benefit of protective contractual arrangements, the Group cannot guarantee these projects will be implemented under satisfactory economic, financial or legal conditions or that they will, in the long term, generate the profitability initially anticipated. This could have a negative impact on the Group's image and financial situation.

More generally, the Group may be confronted with an unexpected change in the regulatory economic and competition framework which may render its decisions inadequate, or may encounter difficulties in implementing or changing its strategy. The Group may be led to acquire or develop assets which ultimately do not generate the profitability initially anticipated. The Group may also find that it has been unable to make the disposals it expects to make, or that it has made them at a price different to that desired, due in particular to financial, regulatory or contractual constraints, or even political acts outside France. This may have a negative impact on the Group's financial results, financial situation and prospects.

The various reorganizations rendered necessary by opening up of the market could have operational and financial repercussions for EDF.

Opening up of the market has notably, resulted in a transfer of distribution activities to subsidiaries and the reorganization of the joint entities through which EDF and Gaz de France manage sales, billing, customer services and distribution networks.

The various reorganizations could have an impact on the operation of sales and distribution activities and on the relationships with local authorities.

Furthermore, they could generate substantial costs, associated notably with adapting organizational structures and support functions, in particular, information systems.

#### Risks relating to information systems.

The Group operates multiple and highly complex information systems (such as servers, networks, applications and databases) which are essential for the everyday operations of its commercial and industrial business, which must adapt to a rapidly changing environment. A problem with one of these systems may have material, negative consequences for the Group. In particular, if the information systems put in place or still to be adapted following the total opening up of the market on July 1, 2007 are lacking in terms of reliability or performance, this may have material, negative consequences for EDF.

Finally, as a general matter, the Group cannot guarantee that the policy

of reinforcing information back-up systems will not meet with technical difficulties and/or delays in implementation, which could – in the event of a serious incident – have a material, negative impact on the activity, financial results and financial position of the Group.

### EDF is controlled by the French State, which is its principal share-holder.

Pursuant to the Law of August 9, 2004, the French State is EDF's principal shareholder and must remain the holder of more than 70% of its share capital. Under French Law, a majority shareholder controls most corporate decisions relating to the company, including those that must be passed by the Shareholders' Meeting (in particular, appointment and dismissal of members of the Board of Directors, distribution of dividends and amendments to the by-laws). In addition, the legal dilution limit for the French State holding may limit EDF's capacity to resort to the capital markets or carry out external growth operations.

Much of the Group's workforce belongs to organizations common to EDF and Gaz de France; the Group therefore depends in part on management mechanisms implemented in these common structures.

At the end of the year 2007, approximately 51,800 people employed by the Group belong to organizations common to EDF and Gaz de France (almost all belonging to ERDF and GRDF's common service, distribution subsidiaries of EDF Gaz de France). Some decisions made in the context of these common organizations may accordingly have an impact on EDF, in particular on costs and on the management of its resources. Moreover, EDF and Gaz de France may have divergent interests concerning these common organizations. Such constraints may have a negative impact on the Group's financial results and financial structure.

The Group does not own a controlling majority of some of its strategic subsidiaries and holdings, or shares control of these entities with other shareholders.

As described in Section 6.3.1.2.2 ("Detail of EDF's holding in EnBW"), the EDF Group shares control of EnBW with OEW. This shared control is exercised through a shareholders' agreement. The Group cannot, however, guarantee that it will always be in agreement with OEW on its policy towards EnBW.

This may also be the case with respect to Edison, where the two shareholders, EDF and AEM Milan (now A2A) and its partners, have joint control, and whose relationships are governed by a shareholders' agreement (see Section 6.3.1.3.1.2 ("Joint takeover of Edison by EDF and AEM Milan (now A2A)")). In addition, advantages which must result from the joint takeover of Edison by EDF and AEM Milan (now A2A), in particular as regards the Group's gas strategy, depend, in part, on the possibility to combine successfully and effectively Edison's activities with those of the Group.

Other Group businesses are, or will be in the future, exercised within other entities in which the Group shares control, or in which the Group is a minority shareholder. In these situations, the Group may find itself confronted with an impasse when partners disagree or decisions are made which are contrary to its interests.

This may limit the Group's ability to implement defined strategies and may have a material adverse impact on its business, financial situation or prospects.



Shareholders in some of the Group's subsidiaries and holdings have put options allowing them to require a buyback of their shares by the Group, which, accordingly, may be forced into re-purchasing these shares at an unfavorable time or under unfavorable conditions.

The structure and conditions of the put options that the shareholders, in particular, of EnBW and EDF Energies Nouvelles, have over the Group are described in Section 6.3.1.2 ("Germany – EnBW") and 6.4.1.1.2 ("EDF Energies Nouvelles").

If put options are exercised, the Group may be forced to purchase the underlying securities at prices, set by the terms of the agreements in force, which could exceed their market value. In addition, the financing of these purchases could interfere with other Group acquisition or investment expenses, delay them, or oblige the Group to seek financing under less favorable conditions, which could have a negative financial impact on the Group.

### The Group may find itself forced to launch a tender offer for the acquisition of listed companies in which it has holdings.

The Group has holdings in a number of listed companies for which current legislation may require, under certain conditions, a shareholder exceeding certain thresholds to launch a tender offer to purchase all of the existing share capital. The Group may, therefore, be forced to launch such an offer under unfavorable conditions, especially with respect to price, which may have a negative impact on its financial situation.

#### Risks due to the international dimension of the Group's activities.

Some Group investments and commitments are exposed to the risks and uncertainties associated with doing business in countries which may have, or have recently had, a period of political or economic instability. Several countries in which the Group operates have less developed legal regulations providing less protection, maintain or could initiate controls or restrictions on repatriation of profits and capital invested, fix or could fix taxation and fees affecting the Group's activities, and impose or could impose restrictive rules with regards to the business of international groups. In these countries, the electricity sector is also subject to sometimes rapidly changing regulations which could be influenced by political, social or other considerations, which may have an effect on activities or financial results of the Group's subsidiaries and thus not be in its interest. The occurrence of any of these events may have a negative impact on the Group's activities, financial results and financial situation.

Finally, the Group has developed or built a portfolio of "Independent Power Plants" (IPP) in different parts of the world, especially in Brazil, Vietnam, Laos and China, in which it plays one or more roles (engineering, project management, project manager, investor or operator). In these different capacities, the Group may find itself liable or the Group's financial performance may be affected, especially if the return on capital employed for the IPP is lower than expected, if long-term electricity contracts or "pass-through" clauses are questioned, or in the event of major changes to electricity market rules in the country concerned.

EDF must continually adapt its skills in a fast-changing environment and renew much of its workforce and transfer experience and skills to new employees.

The challenges associated with achieving the Group's strategic objectives

in a fast-changing environment (notably, the total opening up of markets to competition, international expansion of electricity generation (nuclear or clean coal), growth of the gas business, development of renewable energy sources etc.) require a continuous adaptation of its areas of competence, in particular functional and geographic.

In France, a large number of EDF employees will soon be of retirement age, despite the impact the reform of the special retirement program for gas and electricity industry employees could have on the average retirement age. For example, in nuclear generation and network maintenance, approximately 45% of the workforce could retire during the next ten years. Although this situation may represent an opportunity to adapt the expertise of employees to the Group's new challenges, the renewal of this workforce requires anticipating the knowledge transfer.

The EDF Group will do its utmost to recruit, retain, redeploy or renew these staff and skills in time and under satisfactory conditions. However, it cannot guarantee the measures adopted will always prove totally adequate, which may have an impact on its business and financial results.

### EDF may be required to satisfy significant obligations related to pensions and other employee benefits.

In France, the financing of the pension system for the electricity and gas industries ("IEG") was reformed by French Law of August 9, 2004 (the "Law of August 9, 2004") (see Section 17.8 ("Pension system and complementary healthcare benefits system").

The main features of the reform of the financing of the special pension system for the IEG came into force on January 1, 2005.

The provisions for the special pension system correspond to specific rights of agents linked to services not covered by the general system.

The evaluation also takes into account the portion of CNIEG management fees for which the company is responsible, the CNIEG carrying out the management and payment of pensions to the inactive population.

As of December 31, 2007, the pension provision amounted to  $\in 8,790$  million.

Furthermore, the reform of the special retirement programs, including those of IEG, seeking notably to extend the contribution periods, may be backed-up by measures (concerning wages, changes in the social welfare system, career planning, etc. – see Section 17.8.1 ("Special pension system") below and note 41 to the consolidated financial statements for the year ended December 31, 2007. This could become the responsibility of businesses that are currently in the midst of negotiations. This could have a significant negative impact on the financial situation.

Outside of France, the main pension obligations relate to EDF Energy and EnBW. On the basis of the last actuarial survey carried out on December 31, 2007, the pension funds established by EDF Energy have been considered insufficient by approximately £257 million. EDF Energy pays additional contributions in order to compensate for the shortage of funds (see Section 6.3.1.1.3 ("Financing and Pensions")). EnBW's commitments are fully provisioned.

In addition to these pension obligations, there are also commitments related to post-employment benefits (benefits in kind (electricity/gas), retirement gratuity, exceptional additional pension, and bereavement benefits) and long-term benefits for employees currently in service (annuities following

industrial accidents and work-related illness, long-service awards, invalidity benefits, etc.) (see note 31.6 of the consolidated financial statements for the year ended December 31, 2007).

The amounts of these obligations, the provisions and, for EDF Energy, the additional contributions to compensate for the shortage of funding for its pension scheme are calculated on an estimated basis using certain hypotheses, in particular, actuarial forecasts and a discount rate, which may be modified in relation to market conditions as well as by regulations governing retirement benefits paid out by the general system and those paid out by the Group. These hypotheses and rules may be adjusted in the future and may increase the Group's obligations, leading to an increase in the corresponding provisions (and additional contributions by EDF Energy). This could have a negative impact on the financial situation or the financial results of the Group.

Furthermore, the Law of August 9, 2004 imposed joint and several liability among the companies in the IEG branch in regards to financing the specific rights for which they are responsible. In the event that one company in the IEG branch fails to pay, EDF may be forced to finance a portion of the obligations of such company. This may also have a negative impact on the financial situation and the financial results of the Group.

The special healthcare benefits regime for current and former IEG employees is still to be secured over the medium and long-term.

Branch negotiations are continuing and aim at:

- protecting and securing the special social security system related to health insurance for active and inactive personnel in the electricity and
- improving global health coverage by making it similar to that provided by other major French groups.

If a satisfactory agreement is not reached, IEG branch employers, including EDF, may find themselves in a situation where they have to finance some, or even all of the plan's shortfall, which could have a negative impact on the Group's financial situation.

#### Employee conflicts could have a negative impact on the Group's activity.

The Group cannot exclude a deterioration of its employee relationships or the occurrence of employee demonstrations. Strikes, stoppages, claims or other social problems may harm its business. The Group has not taken out any insurance for losses due to interruptions to business caused by employee demonstrations. As a result, its financial situation and operating results may be adversely affected by employee unrest.

The Group has implemented programs to improve its operating and financial performance and to reinforce its financial flexibility. The objectives set for these programs may not be achieved.

The Group has implemented programs to improve its operating and financial performance and to reinforce its financial flexibility. After the achievement of the Altitude program in 2007, the Group implements a new program for three years, the program Excellence Opérationnelle (see Section 12.1). Its implementation, planned in 2008 in France, will be gradually extended to Group others subsidiairies. It aims to improve the Group's results by achieving synergies and continous progress on its operational processings and supports, its purchasing methods, its conversion and expansion programs.

The Group cannot guarantee that these programs will produce the expected results within the established timeframe. This may have a material adverse impact on the Group's financial results, financial situation and outlook.

#### Risks due to changes to the IFRS standards applicable by the Group.

EDF consolidated financial statements for the year ended December 31, 2007, have been prepared, as for the two previous years, in accordance with international accounting standards approved by the European Union on December 31, 2007 (see note 1.2 in the annex to the consolidated financial statements for the year ended December 31, 2007).

These references are evolving and new standards and interpretations are currently in the process of being drafted and/or approved by the qualified international bodies. The Group is studying the potential impact of standards or interpretations in the process of being approved or authorized by the qualified international bodies on its financial situation. In relation to standards or interpretations in the process of being drafted by the qualified international bodies, the Group does not know of the possible evolutions that these standards or interpretations could entail, or the impact that they could have on its financial statements.

#### 4.2.5 Risks related to the capital structure of EDF and the listing of its shares

#### 4.2.5.1 SIGNIFICANT VOLATILITY OF THE MARKET PRICE OF **SHARES**

Stock markets have experienced significant fluctuations in recent years, which have not always been related to the performance of the specific companies whose shares are traded. Such fluctuations may materially affect EDF share price.

EDF share price may also be materially affected by a number of factors, including factors relating to the EDF Group, its competitors, general economic conditions and, in particular, the energy industry.

#### **4.2.5.2 FLUCTUATION IN EXCHANGE RATES**

The shares will be quoted only in euros and any future payments of dividends on the shares will be denominated in euros. The share price and any dividends paid to an EDF shareholder in other currencies could be adversely affected by a depreciation of the euro.

#### 4.2.5.3 RISKS RELATED TO FUTURE SALES OF SHARES BY THE FRENCH STATE

As of December 31, 2007, the French State was holding 84.85% of EDF's share capital. If the French State decided to reduce further its holding in EDF capital, such sales by the French State, or the perception that such sales could occur, could adversely affect EDF share price.



# 4.3

### **Dependency factor**

In 2007, EDF (excluding RTE-EDF Transport) had 20,289 suppliers (compared with 22,915 in 2006 and 29,965 in 2005). EDF's five most important suppliers accounted for 24% of the total amount committed by EDF<sup>3</sup>, and the 10 most important accounted for 30.3%.

Some suppliers and subcontractors of goods and services purchased by the Group in connection with its business cannot be replaced. The issue of EDF's dependency on its suppliers is principally related to the nuclear power sector and, to a lesser extent, the computing and telecommunications sector.

The EDF Group has developed a skill as the architect-assembler of its generation fleet and as a nuclear fuel cycle integrator, which gives EDF a technical expertise independent of that of its suppliers.

The EDF Group has very important commercial relations with the Areva group, which participates in each phase of the nuclear fuel cycle. The Areva group also participates in the construction and equipment sector, together with maintenance of the nuclear fleet.

The Areva group is EDF's main supplier in the nuclear sector. In this respect, EDF considers itself in a situation of interdependence with the Areva group. Relations between EDF and the Areva group, with respect to the fuel cycle, are governed by contracts which are most often multi-annual, and which are being negotiated in light of their renewal. The renegotiated commercial terms of the contracts may be less favorable than the terms that are currently applicable. With respect to the front-end nuclear fuel cycle (see Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues – A. Front-end")), EDF still relies to a large but decreasing extent upon the Areva group, which accounted for approximately 70% of EDF's purchases in the front-end cycle in 2007, against approximately 78% in 2006:

- the Areva group supplies an important part of EDF's natural uranium needs. However, EDF is pursuing a policy of diversifying its sources of supply in order to balance market shares between the Areva group and other suppliers;
- in relation to the nuclear conversion process, a large majority of EDF's needs is met by the Areva group's Comurhex factory, in competition with other worldwide suppliers;
- in the enrichment area, EDF relies predominantly on the Areva group, in particular, through the enrichment services of its Georges Besse I factory. In 2007, EDF and Areva extended their contractual relationship concerning the use of George Besse I until 2010. EDF also buys enrichment services from other suppliers that have already mastered ultracentrifuge technology;
- in relation to uranium reprocessing ("URT"), EDF relies on the Areva group for certain types of services and on foreign suppliers (Tenex and Urenco) for other types, notably enrichment;
- EDF uses two suppliers for the manufacture of fuel assemblies: the Areva and Westinghouse groups.

With respect to the back-end nuclear fuel cycle, see Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues – B. Back-end").

All operations for treatment of burnt fuel are carried out in the Areva group's factory at *La Hague*. These operations are carried out in accordance with the terms of a protocol entered into in 2001, covering the period from 2001 to 2015, and an agreement signed in 2004 for the period from 2001 to 2007. EDF and Areva are working to establish a new agreement for the post-2007 period. For 2008 an interim agreement has been concluded. This interim agreement entered into with AREVA for the year 2008 has been renewed in March 2008 for the operations expected in 2009 and also covers the industrial operations of the MELOX factory at Marcoule (manufacturing and delivery of MOX assemblies).

The compensatory discharge payment for EDF's share of the dismantling of *La Hague* installations will be an integral part of the new agreement.

#### Power plant development and maintenance

In recent years, the Areva group has been EDF's main supplier with regard to power plant development and maintenance. In particular, the Areva group supplies nuclear boilers and their spare parts, plus a significant part of the boiler equipment, pipe work and plumbing for the nuclear island. A diversification program has been undertaken for several years, in particular, with Westinghouse and Mitsubishi, for the replacement of major components (steam generators in particular).

In order to prepare for the renewal of its generation facilities, EDF has chosen to rely on EPR technology, developed with the Areva group, by launching a first-of-a-kind project. In relation to this first-of-a-kind project, in 2007 EDF signed a contract with Areva for the supply of the EPR boiler at Flamanville 3. Following the conclusion of this contract, the Areva group consequently again became EDF's most important supplier in the area of power plant development and maintenance in 2007.

In addition, EDF also maintains relations with the Alstom group for the maintenance of certain components of nuclear and fossil-fired power plants. Goods and services supplied to EDF by Alstom are particularly important with respect to the maintenance of the nuclear power plants' turbo-generators and of certain large-sized components of the fossil-fired generation facilities. EDF does not consider itself in a situation of dependence on the Alstom group.

Finally, the EDF Group does not believe that, overall, it is in a situation of dependence with any given customer.

<sup>&</sup>lt;sup>3</sup> Excluding RTF-EDF Transport and fuel purchases.

### Information about the Company





**5.1** History and Development of the Company

**5.2** Investments

P.31

P.32

## 5.1

### **History and Development of the Company**

In this document, the references to the articles of association refer to those of the Company as approved by the French Decree n° 2004-1224 of November 17, 2004, and pursuant to French Law n° 2004-803 of August 9, 2004 relating to the public electricity and gas service and to electricity and gas companies (the "Law of August 9, 2004"), and as modified by the ordinary et extraordinary Shareholders' meeting of February 14, 2006.

### 5.1.1 Name and registered head office

The name of the Company is: "Electricité de France". The Company may also be legally named solely by the "EDF" acronym.

The Company's head office is located in Paris (8th arrondissement): 22-30, avenue de Wagram.

### 5.1.2 Commercial registry, APE code

The Company is registered with the French Registre du Commerce et des Sociétés de Paris (Commercial and Corporate Registry of Paris) under the number 552 081 317. Its APE code is 401 E.

# **5.1.3** Date of incorporation and duration of the Company

Pursuant to French Law n° 46-628 of April 8, 1946, EDF was created in the form of a Public Industrial and Commercial Establishment (Etablissement Public industriel et commercial, or "EPIC").

EDF was transformed into a French société anonyme by the Law of August 9, 2004 and the French Decree of November 17, 2004. The duration of the Company is set at 99 years starting from November 20, 2004, except in the case of early dissolution or of extension.

### 5.1.4 Legal form and applicable legislation

Since November 20, 2004, EDF has been a French *société anonyme* with a Board of Directors governed by the laws and regulations applicable to commercial companies, in particular the French Commercial Code, insofar as these are not derogated from more specific laws, such as French Law n° 46-628 of April 8, 1946, French Law n° 83-675 of July 26, 1983, French Law n° 2000-108 of February 10, 2000, the Law of August 9, 2004, the Law of December 7, 2006 relating to the energy sector and by its articles of association.

### 5.1.5 History

The following elements describe the major stages of the Group's development.

EDF was created in 1946. Before 1946, the electricity sector had developed around numerous local companies across France. At the end of the

1930s, there were approximately 200 generation companies, with approximately 100 transmission companies and 1,150 distribution companies. This multitude of private companies, in addition to some 250 local utilities, was responsible for approximately 20,000 distribution concessions. A certain number of large groups emerged from this apparent fragmentation in the fields of generation and distribution.

In 1946, the electricity and gas sectors were nationalized. The French Law of April 8, 1946 created EDF in the form of an EPIC and created a special status for the personnel of the Power and Gas Industries (*Industries Electriques et Gazières*, or "IEGS"). The law nevertheless left in existence a certain number of non-nationalized distributors (local distribution companies, "LDCs").

The industrial base was developed over the period from 1946 to 2000. Initially, there was a fleet of fossil-fired generation facilities using coal then oil, and hydropower facilities, in particular with the construction of the dams of Tignes in 1952 and Serre-Ponçon in 1960. In 1963, following the French State's decision to guarantee France's independence in the energy field through nuclear power, EDF put into service the first commercial-scale nuclear generation unit at Chinon (70 MW), the first of a series of 6 generation units of the Uranium Natural Graphite Gas ("UNGG") family, the construction of which was staggered until 1972. The oil shocks of 1973 and 1979 resulted in an acceleration of the replacement of fossil-fired power with nuclear power. In 1969, the UNGG was abandoned in favor of the Pressurized Water Reactor ("PWR") family, which was used for new power plants: 34 generation units of 900 MW with construction staggered until 1988, then 20 generation units of 1,300 MW with construction staggered until 1994, then with 4 N4 generation units of 1,450 MW entering into service in 2000 and 2002.

Beginning in the 1990s, EDF embarked on a significant expansion abroad. In 1992, the Group obtained an interest in the share capital of Edenor, a distribution and supply company in Argentina. This shareholding was later increased to 90%. In May 1996, EDF acquired 11.34% of the share capital of the Brazilian electricity company Light, a distribution and supply company located in the State of Rio de Janeiro. As of December 31, 2004, EDF held 94.8% of the share capital of this company. In December 1998, EDF acquired 100% of London Electricity (renamed EDF Energy on June 30, 2003). This policy was pursued in 2001 with the acquisition of 34.5% of EnBW and the acquisition of shareholding interests in the Italian company Edison by the IEB consortium (63.8%), of which EDF held 18.03%, and in 2002 when London Electricity acquired 100% of the share capital of EPN Distribution plc and of Seeboard plc, two distribution companies located in the east and the south-east of England.

In France, the major development of recent years has been the opening of the market under the impetus of European regulation. In February 1999, sites where electricity consumption exceeded 100 GWh per year, some 20% of the market, became entitled to choose their supplier. The eligibility threshold was then progressively lowered. In May 2000, 30% of the market was

# Information about the Company



thus opened to competition, then 37% in February 2003. In July 2004, the totality of the market for non-household customers, equivalent to 69% of the entire market, was opened. Since July 2007, the market has been fully open to competition and includes residential customers.

In parallel, the structures necessary for effectively operating a competitive market were put into place. The French Electricity Regulation Commission (which became the French Energy Regulation Commission – Commission de Régulation de l'Energie, or "CRE") was created in May 2000. In the same year, in order to guarantee non-discriminatory access to all operators in the market, EDF created the Electricity Transmission Network (Réseau de Transport d'Electricité, or "RTE", which became a wholly-owned subsidiary of EDF in 2005 as "RTE-EDF Transport"), an independent internal entity responsible for managing the high voltage and very high voltage public electricity transmission network. In 2000, the Group formed the trading company, EDF Trading, with the trading specialist Louis Dreyfus. It became a wholly-owned subsidiary in 2003. In 2001, Euronext and various industrial and financial operators on the electricity market, including EDF, created Powernext, the French electricity exchange. In 2002, in exchange for the shareholding in EnBW obtained by EDF, the European Commission requested EDF to implement a system of power supply capacity auctions (Virtual Power Plants, or "VPP") to facilitate access to the market for competitors. In 2003, the EDF Group sold its shareholding in the Compagnie Nationale du Rhône to Suez.

On November 20, 2004, in accordance with the French Law of August 9, 2004, EDF was transformed into a French société anonyme with a Board of Directors.

On May 12, 2005, EDF and AEM Milan (from then A2A) entered into agreements relating to their decision to take joint-control of Edison. Following the launch of a takeover bid on October 4, 2005, this joint takeover was completed on October 26, 2005, when the offer was closed.

Since 2005 the EDF group implemented its strategy of refocusing on Europe by selling its controlling interest in its subsidiaries Edenor and Light and its assets in Mexico.

Finally, EDF was listed on the stock exchange during the second half of 2005. This operation was made possible by the company issuing 196,371,090 new shares and by the French State selling more than 34.5 million shares to employees and former employees of EDF and of certain subsidiaries. This was followed by the sale of 45 million shares owned by the State on December 3, 2007.

By the end of November 2006, EDF Energies Nouvelles, a subsidiary of which the EDF group held 50%, became listed on the stock market. This operation involved the issuance of 18,946,854 new EDF Energies Nouvelles shares, 4,798,464 of which were reserved to the EDF Group.

Since January 1, 2008, EDF's distribution business has been carried out by Electricité Réseau Distribution France (ERDF), a subsidiary wholly owned by EDF, as a result of the contribution of the distribution activities in compliance with the French energy sector Law of December 7, 2006.

### 5.2 Investments

For a description of the main investments made by the Company for the period 2006-2007, see Section 9.9.1.2 ("Net cashflows related to investment activities") of this document. As regards the Group's investment policy in the future, see Section 6.1.6 ("Investment Policy") below.

### **Business overview**



	<b>6.1</b> Strategy	P.33
•••	<b>6.2</b> Presentation of the EDF Group's activity in France	P.36
	<b>6.3</b> Presentation of the EDF Group's international activity	P.69
	<b>6.4</b> Other activities and transverse functions	P.93
	<b>6.5</b> Legislative and regulatory environment	P.103

The EDF Group is an integrated energy company with a presence in a wide range of electricity-related businesses: generation, transmission, distribution, sale and energy trading. It is France's leading electricity operator and has a strong position in the three other main European markets (Germany, the United Kingdom and Italy), making it one of Europe's leading electrical concerns as well as a recognized player in the gas industry. With worldwide installed power capacity totaling 126.7 GW (124.5 GW in Europe) and global generation of 610.6 TWh, it has the largest generating capacity of all the major European energy corporations with the lowest level of  ${\rm CO_2}$  emissions due to the significant proportion of nuclear and hydroelectric power in its generation mix. The EDF Group supplies gas, electricity, and associated services to more than 38 million customers accounts<sup>4</sup> worldwide and in Europe (including more than 28 million in France).

The EDF Group's businesses reflect its adoption of a model aimed at finding the best balance between French and international activities, and between competitive and regulated operations. In 2007 the Group's consolidated revenues were  $\leqslant$  59.6 billion, the net income (Group share) was  $\leqslant$  5.6 billion, and the earnings before interest, tax, depreciation and amortization was  $\leqslant$  15.2 billion.

Since July 1, 2007, the EDF Group has to conduct its business in a European market that is completely open to competition. On January 1, 2008, ERDF, the wholly owned subsidiary of EDF, assumed responsibility for all distribution in France, while RTE-EDF Transport has responsibility for all transmission activities.

# **6.1** Strategy

The world is currently facing a major energy challenge: to meet growing demand against a backdrop of climatic constraints and shrinking resources. It will be an era of high fuel prices and major investment requirements, circumstances that will put pressure on electricity prices. In Europe, the European Union has adopted a principle of energy efficiency environmental objectives, with stress on including renewable sources and reducing emissions of greenhouse gases (particularly through carbon emissions trading).

This situation requires an energy policy combining energy management, an increased use of renewable sources, and an expansion of nuclear power. Nuclear power, which can combine competitiveness with self-sufficiency and low  ${\rm CO}_2$  emissions, now seems to be an essential element of the future energy mix, both in France and in many other parts of the world.

The EDF Group, as the world's leading generator of nuclear power, with a unique position in Europe, a strong presence on the four main markets, and a significant financial capacity, is ideally positioned to benefit from this situation.

The EDF Group's goal is to position itself as a leader of tomorrow's energies, committing its combination of industrial, financial, marketing, social and corporate efficiency to the cause of sustainable development, with all its activities focused on taking on energy and environmental challenges.

In France especially, the Group embarkes on an important investment program in generating capacity and distribution networks since 2005.

Operational investments in France therefore rose from  $\leqslant$ 3.1 billion in 2004 to  $\leqslant$  4.5 billion in 2007. From 2008, the EDF Group wants to invest more than  $\leqslant$ 35 billion during three years, of which  $\leqslant$ 20 billion in France in generating capacity and distribution networks (see Section 6.1.6 ("Investment policy") below).

The EDF Group's ambition is focused on the following principal strategic priorities: to effect long-term improvements in industrial, operational and financial performance in France; to strengthen and extend the Group's leading position in Europe; to invest in natural gas to satisfy the Group's customers' demand and meet the needs of its power plants; to promote energy efficiency, renewable sources and environmentally efficient technologies; and to contribute to the resurgence of nuclear power worldwide. In this framework, the success of the "Excellence Opérationnelle" program is a priority for EDF Group. Having completed the "Altitude" efficiency program (2005-2007), which significantly exceeded its goals by year-end 2007, the Group will embark on a new three-year program in 2008. Implemented in France in 2008, the program will be gradually extended to other Group subsidiaries. Its aim is to ensure ongoing, lasting improvements in the Group's performance in all areas: operating and support activities, purchasing methods, conversion and expansion programs, realizing the benefits of synergies, and innovation. The Group's target for 2008-2010 is to reach a gain of €1 billion on Group's 2010 EBITDA in comparison with the one of 2007 (see Section 12.1 ("Performance Improvement : Altitude and Excellence Opérationelle programs" below).

<sup>&</sup>lt;sup>4</sup> A customer may have two customers accounts: one for electricity and one for gas.



# 6.1.1 Effect long-term improvements in industrial, operational and financial performance in France

The Group intends to pursue its strategy as an integrated player, based primarily on a balance between regulated activities (transmission and distribution) and deregulated activities (generation and supply). EDF intends to:

Provide new product offerings to its customers, including gas and services, focusing on eco-efficient energy

Since July 1, 2007, EDF has been operating in a totally open market. It has responded with a marketing strategy that differentiates among customer segments in order to improve customer satisfaction, with the goal of retaining its client portfolio and enhancing its value. This strategy is based on EDF's strong reputation and includes developing multi-services and dual fuel (electricity and gas) offers, particularly for domestic end users, together with additional services with higher added value.

EDF is committed to fighting climate change and is developing electricity offers based on energy savings through its "Bleu Ciel d'EDF" product range, a package of assorted renewable sources (including photovoltaics, heat pumps, solar water heating, etc.), teleservices and innovative services, and of insulation/renovation services. It issues energy saving certificates based on customer services, which focus on energy efficiency.

In the gas market, EDF is aiming at a market share in the order of 10% (volumes sold to end users) in France by 2010.

Continue its efforts to optimize its electricity generation mix and increase the useful life of its plants

In 2005, EDF decided to further the optimization of its electricity generation mix by strengthening its mid-merit and peak capacity. It therefore made the following investments: (i) put 4 fuel oil units (2,540 MW) back into service, (ii) built combustion turbines (1,055 MW), (iii) built a 440 MW combined-cycle gas generator, and converted the oil-fired power plants on the Martigues site (750 MW) to two combined-cycle gas generators working to meet mid-merit demand (930 MW, *i.e.* a gain of 180 MW).

EDF also intends to maintain its hydroelectric generating capacity and pursue new projects.

The Group is also engaged in important programs to maintain its generating plants, particularly hydroelectric and nuclear. Thus it will be spending approximately €560 million on a hydroelectric plant maintenance and technical upgrading program, "Hydropower Safety and Performance," between 2007 and 2011.

It has also launched an enhanced maintenance program for nuclear plants, called "Exemplary Plant Condition," investing some €600 million over five years, and is considering additional investments over the next decade to replace the steam generators for its 900 MW units. All these programs will contribute to prolonging the lifespan of the nuclear generation units and extending their average useful life beyond forty years, which is one of the EDF Group's targets.

• Prepare to renew nuclear capacity and retain EDF's technological edge

As regards baseline plant, EDF is preparing to renew its nuclear generating capacity by the construction of an EPR at Flamanville (1,600 MW, scheduled to come on line in 2012).

• Promote a policy of sustained investment in electricity networks

In its regulated business, EDF aims to retain its reputation as an exemplary and transparent operator. It intends to strenghten its Distribution business, which safeguards the Group's standing in France, and continually pursue customer satisfaction throughout its entire client base by the excellence of its service and its professionalism. EDF is therefore striving to pursue a policy of sustained investment in its networks, using innovative and generating efficiency technology.

In Transmission business, in addition to its commitment to extend the Very High Tension network in France, the Group is enthusiastically committed to interconnections to facilitate cross-border exchanges. It is therefore pressing for increased cooperation among Transmission network managers so as to accelerate the integration of regional and futures markets in Europe.

# **6.1.2** Strengthen and extend EDF's european leadership

Over and above its investment program in France, the EDF Group plans to consolidate its leadership based on its current positions by strengthening its portfolio of generating assets in Europe, fostering the growth of its subsidiaries, and pursuing integration within the Group.

- United Kingdom: the EDF Group already has a strong presence in this country and is supporting the organic growth of its subsidiary, EDF Energy, through upstream investments (1300 MW CCGT at West Burton), and it aims to play a leading role in the resurgence of nuclear power. It has also set up a joint subsidiary between EDF Energies Nouvelles and EDF Energy to develop renewable energy sources in the United Kingdom.
- Germany: the EDF Group is supporting the growth of EnBW in this country (completing the hydropower plant at Rheinfelden, supercritical coal-powered power plant at Karlsruhe, marketing outside its traditional area, emphasizing renewable sources and energy efficiency); the EDF Group is also supporting its international expansion (Central and Eastern Europe, Turkey);
- Italy: the EDF Group is supporting the reinforcement of Edison's business model (based chiefly on safeguarding gas supplies, improving upstream/downstream equilibrium by acquiring market share downstream) and also its international expansion (especially Greece and the Balkans);
- Benelux: the focus is again on consolidating its position: EDF aims to create a strong integrated presence in Benelux, a neighboring market at the heart of the Europe;
- Switzerland: negotiations are in progress between Atel Holding (in which EDF has a holding via Motor Columbus) and EOS Holding with the aim of creating an energy entity in western Switzerland; the EDF Group is also aiming to improve its access to Swiss peak generation capacity, which complements the Group's existing plant network;
- Central and eastern Europe, without excluding Russia, have significant development potential.

EDF continues to consider and investigate the different external growth possibilities satisfying the three criteria of strategic consistency, financial return, and acceptability in involved countries.

# **6.1.3** Invest in natural gas to satisfy customer demand and meet the needs of its power plants

The Group aims to secure the gas resources it needs for its combined-cycle gas generators (CCGs) and increase sales to end users, principally through dual-fuel offers: the Group's medium-term aggregate requirements are estimated at around 45 Gm<sup>3</sup>.

The Group's target is an average market share of close to 15% in terms of volume sales to end users in the area comprising France, the United Kingdom, Germany and Italy by 2015. It therefore wants to increase its portfolio of gas purchase agreement, and its access to gas reserves as to logistical infrastructure (gas pipelines, LNG supply chain, storage), either by investing or by reserving contractual rights. It is steadily building up a portfolio of positions based on older Edison projects in southeastern Europe and newer projects developed by its subsidiaries in northwestern Europe.

These projects will enable the EDF Group to deal directly with producers in order to increase the independence of its supplies with regard to its competitors and negotiating better terms; it will also enter the LNG market and increase intra-group synergies.

# **6.1.4** Promote energy efficiency, renewable sources, and environmentally efficient technologies

- Services focused on downstream energy efficiency: the EDF Group's target is to be the leader on eco-energy efficiency market. It aims to increase of 50% each year by 2012, the number of customers subscribing energy management and decentralized renewable sources offers.
   EDF is offering solutions to the European markets for managing the growth in consumption and developing innovative energy solutions. It is developing product offerings based on energy management and encourages the development of multi-source energy as an integral part of buildings (photovoltaics, heat pumps, etc.) via its subsidiary EDF Energies Nouvelles Réparties.
- To develop centralized renewable sources: these are a major focus of growth for the EDF Group. The Group intends to treble by 2012, whether alone or in partnership, its set up capacities in renewable sources (except for hydropower). This strategy helps reduce the overall emissions of the energy mix and so complement nuclear power. The Group intends to continue developing its hydropower potential, together with photovoltaics and wind energy via its subsidiary EDF Energies Nouvelles.
- Coal technologies: the EDF Group also aims to make the most of opportunities that arise, in Europe and worldwide, from the newest technology (supercritical coal-fired power plants) and contribute to perfecting CO<sub>2</sub> capture, transport and storage technologies ("CCS: Carbon Capture & Sequestration").

# **6.1.5** Be a main actor of the resurgence of nuclear power worldwide

As the world leader in nuclear power, the EDF Group holds some major strengths (as operator of the world's largest nuclear capacity, plus its engineering expertise) for its international growth in an environment which is currently becoming more favorable to this technology. The EDF Group target is to invest in more than 10 EPR, to implemente and to operate them by 2020, in particular in the framework of its strategic partnerships. Four priority target countries have been identified:

USA: in July 2007 EDF and Constellation Energy signed a strategic partnership agreement to jointly design, build, own, and operate at least four EPR-type nuclear power plants in the US; they also made a cooperation agreement to consider possible joint energy ventures in the US and Canada, particularly in electricity generation;

China: in November 2007 EDF and the China Guangdong Nuclear Power Corp. (CGNPC) signed an agreement granting EDF the right to invest and operate in China via an approximately 33% holding in the Taishan Nuclear Power Company which has been set up to build, own, and operate two EPR units purchased by CGNPC;

United Kingdom: the country is now returning to use of nuclear power and the aim is to build up to five EPRs of the same type as Flamanville 3;

Republic of South Africa, if it opts for the EPR model.

In January 2008 the Group signed a protocol of agreement with Qatar whereby EDF would support Qatar's plans to develop nuclear power for civilian purposes. Other possibilities may emerge over the short and medium term.

In addition, to secure the volume and price of its supplies, EDF is considering creating an upstream presence in the nuclear industry.

#### **6.1.6** Investment policy

The EDF Group investment target is higher than €35 billion for three years over the period 2008-2010, including €20 billion in France in generation and networks.

In 2007 the EDF Group's investments totaled €8.5 billion compared with €6.6 billion in 2006 and €5.3 billion in 2005<sup>5</sup>.

The EDF Group's increased operational investment levels continued in 2007: these investments are 26% higher than in 2006. In France, investments in generation and networks in 2007 totaled €4.5 billion (€3.8 billion in 2006, an increase of 18%). Investment in generation was more than 40% higher in 2007 than in 2006. International investments in 2007 totaled €3 billion (see Section 9.9.1.2 ("Net cash flow linked with investments activities") below). Over and above these €7.5 billion operational investments, EDF invested approximately €1 billion in external growth.

This investments growth started in 2006, a year where operational investments (€5.9 billion) recorded an increase of approximately 15% in comparison with the year 2005. Between 2006 and 2005, the increase reached 21.5% for France (€3.8 billion against €3.2 billion in 2005) of which 53% for investments in generation, whereas, from an international point of view, the operational investments remained almost stable (€2.1 billion in 2006 and €2 billion in 2005). In 2006, €0.7 billion of external growth investments have been added to these operational investments, after €0.1 billion in 2005<sup>6</sup>.

<sup>&</sup>lt;sup>5</sup> This figure excludes investments linked with the joint takeover of the Edison Group which was already under completion when the Group communicated on its investment policy

<sup>&</sup>lt;sup>6</sup> This figure excludes investments linked with the joint takeover of the Edison Group which was already under completion when the Group communicated on its investment policy



2008 should be a year of strong investments in a framework of increasing expansion of operational costs (increase of raw material, energy and fitting cost, impact of personal expenses increase linked with the imple-

mentation of the retirement plan reform). 2008 will see the pursuit of the investment program which will be higher than €10 billion.

## 6.2

## Presentation of the EDF Group's activity in France

## 6.2.1 Deregulated activities in France

The deregulated activities of EDF in France (activities open to competition), include the generation and supply of electricity. EDF is implementing an integrated model for the joint operational management of its portfolio of assets upstream (generation and procurement of energy and fuels) and downstream (wholesale and retail) to guarantee supply to its customers through the best possible management of operational and market risks and with a view to maximizing gross margin.

#### **6.2.1.1** ELECTRICITY GENERATION

EDF groups together its main electricity generation activities in France within its Generation and Engineering Division which has all of the skills and performance levers necessary to operate the largest European electricity generation fleet and to manage its development and continuity.

As of December 31, 2007, the Generation and Engineering Division had 35,609 employees. It is organized around three major areas: nuclear power, hydropower and fossil-fired power.

In addition, its engineering department provides technical and industrial skills to the entire Group in all three areas: nuclear power, hydropower, and fossil-fired power (see Section 6.3 "Presentation of the EDF Group's international activity).

#### 6.2.1.1.1 GENERAL PRESENTATION OF EDF'S GENERATION FLEET

## 6.2.1.1.1.1 COMPOSITION AND CHARACTERISTICS OF THE INSTALLED

With a total installed capacity of 96.2 GW in mainland France<sup>7</sup> as of December 31, 2007, EDF has the largest generation fleet in Europe, accounting for approximately 16% of the total installed capacity of the main European countries (the 22 member countries of the UCTE – Union for the Coordination of Transmission of Electricity – which includes, in particular, Germany, Italy, Spain and the United Kingdom). In 2007, EDF's generation facilities represented 477.5 TWh.

As of December 31, 2007, the capacity of EDF's generation fleet in metropolitan France was as follows:

- 58 nuclear units based on pressurized water reactors ("PWR") (a unit is defined as a generation unit including a reactor, steam generators, a turbine, a generator and the related equipment): these units are spread out over 19 sites; 34 units have a power capacity of 900 MW each, 20 units have a power capacity of 1,300 MW each, and 4 units have a power capacity of nearly 1,500 MW each; the average age of the units is 22 years<sup>8</sup> (between 6 and 30 years);
- 32 functioning fossil-fired units, with those in service having an average age of approximately 30 years; in addition, 6 units have been shut down, including the last 2 oil-fired units which EDF has decided to reactivate by end-2008. Compared to December 31, 2006, one coal-fired unit was permanently shut down in 2007 following a decision by the Board of Directors on May 25, 2005;
- 447 hydropower plants with an average age of about 50 years;

There were also:

- the wind power generation capacity of EDF Energies Nouvelles in France (see Section 6.4.1.1.2 ("EDF Energies Nouvelles") below) and the incineration plants of the TIRU group (see Section 6.4.1.1.3 ("Other holdings in the renewable energy sector") below); and
- 64 hydropower plants attached to the operational perimeter of the Generation/Engineering Division but held by the Group's subsidiaries: SHEMA (100%), FHYM (69.7% since January 8, 2008) and FHYT (99% of which are held by FHYM since January 8, 2008), representing a total of 70.1 MW of installed capacity in 2007 and 238 GWh generation capability.

## 6.2.1.1.1.2 Evolution of the installed capacity and generation over the last three years

The table below shows the evolution of installed capacity over the last three years:

	As of December	er 31, 2005	As of December 31, 2006 As of December 3:		er 31, 2007	
Installed Capacity <sup>(1)</sup>	In MW	%	In MW	%	In MW	%
Nuclear power	63,130	65	63,130	65	63,130	65
Hydropower <sup>(2)</sup>	19,990	21	20,062	21	20,069	21
Fossil-fired <sup>(3)</sup>	13,920	14	13,206	14	13,032	14
TOTAL	97,040	100	96,398	100	96,231	100

- (1) Expressed in MW of power connected to the network.
- (2) Excluding Corsica and the French overseas departments, 371 MW in 2007.
- (3) Excluding Corsica and the French overseas departments, 1,405 MW in 2007.

<sup>&</sup>lt;sup>7</sup> For Corsica and French overseas departments, see Section 6.2.2.3 ("Island energy systems").

<sup>&</sup>lt;sup>8</sup> Arithmetic mean based on industrial commissioning.

The table below shows the evolution of the generation from EDF's installed capacity over the last three years:

	As of December	er 31, 2005	As of December 31, 2006 As of December 3		er 31, 2007	
Generation	In TWh	%	In TWh	%	In TWh	%
Nuclear power	429.2	88	428.1	88	418	88
Hydropower <sup>(1)(3)</sup>	37.5	8	40.2	8	41.2	8
Fossil-fired <sup>(2)</sup>	21.4	4	16.9	4	18.2	4
TOTAL	488.1	100	485.2	100	477.5 <sup>(4)</sup>	100

- (1) Excluding Corsica and the French overseas departments, 1.4 TWh in 2007.
- (2) Excluding Corsica and the French overseas departments, 4.2 TWh in 2007.
- (3) Total hydraulic generation: the electricity consumption needed for the operation of pumped storage plants amounted to 7.7 TWh in 2007, resulting to a net hydraulic generation (given the pumped storage consumption) of 33.5 TWh.
- (4) This 477.5 value corresponds to the sum of the precise values, corrected to one decimal place.

#### 6.2.1.1.2 STRENGTHS OF THE GENERATION FACILITIES' FLEET

With a total installed capacity of 96.2 GW as of December 31, 2007 in mainland France, EDF has the largest fleet of generation facilities in Europe. This fleet has significant assets:

- A competitive generation mix with low variable generation costs and limited exposure to hydrocarbon market fluctuations due to nuclear and hydropower facilities.
- A variety of generation means enabling adequate coverage of EDF's downstream portfolio needs (end users, VPP, sales on the wholesale markets, etc.). Utilization of the fleet's various components is managed by giving priority, at any given time, to the generation type offering the lowest variable costs. Run-of-river hydropower plants are used for base generation. Nuclear plants, because of their low variable generation costs, are used for baseload and mid-merit generation. Adjustable hydropower generation (coming from dams) and fossil-fired plants are used for mid-merit and peak generation.
- A significant standardized fleet of nuclear facilities; EDF's full control over their entire life cycle gives the company competitive advantages. Moreover, EDF is working towards extending the lifespan of its power plants and improving their technical performances.
- A fleet generating at over 95% without CO<sub>2</sub> emissions owing to the predominance of nuclear and hydropower generation facilities, representing a competitive advantage in an increasingly restrictive regulatory context.
- A geographical position at the junction of electricity exchanges between the continental platform and the electric peninsulas (Italy, Spain, the United Kingdom).

#### 6.2.1.1.3 NUCLEAR GENERATION

The electricity generated by EDF from its fleet of nuclear power plants represents, as of December 31, 2007, 88% of its total electricity generation. The characteristics of this fleet are set forth below.

## 6.2.1.1.3.1 EDF'S NUCLEAR FLEET

EDF's PWR model is divided into three series of available electrical power:

- 900 MW series consisting of 34 units of approximately 900 MW (i.e., a total power capacity of 30,770 MW);
- 1,300 MW series consisting of 20 units of approximately 1,300 MW (i.e., a total power capacity of 26,370 MW); and
- N4 series, the newest, consisting of four units of approximately 1,500 MW (i.e., a total power capacity of 5,990 MW);

totaling 58 units in service spread over 19 sites, with a total installed capacity of 63,130 MW as of December 31, 2007.

The first unit of the 900 MW series power plant was commissioned at Fessenheim in 1978. The most recent unit was commissioned at Civaux in 2002. This fleet of reactors has accumulated an experience equivalent to approximately 1,300 reactor-years of operation (arithmetic sum of the years of operation of EDF's PWRs). EDF's nuclear fleet is one of the youngest in the world, with an average age of approximately 22 years for an estimated technical lifespan in excess of 40 years.

The EDF Group owns 50% of the Tihange 1 plant in Belgium and holds shareholdings in German power plants through its interest in EnBW.

EDF owns nuclear facilities' sites, which is an advantage when it comes to the renewal of its fleet, because EDF already has the sites needed to build new units.

The EDF power plants of the first-generation technology have been gradually shutdown and are being decommissioned.

#### **Generation allocation contracts**

EDF has developed an industrial cooperation with European operators in the nuclear industry, in the form of generation allocation contracts related to units of EDF's French nuclear fleet. Thus, EDF's fleet includes four sites jointly-owned (up to 1.4 GW ) with the following European electricity companies:

- Fessenheim 1-2: EnBW (17.5%) and the consortium of Swiss electricity companies, CNP (15%);
- Bugey 2-3: Electricité de Laufenbourg in Switzerland (17.5%);
- Tricastin 1 to 4: Electrabel (12.5%); and
- Cattenom 1-2: EnBW (5%).

The purpose of these generation allocation contracts, for each unit concerned, is to make available to each partner the proportion of energy generated which is actually due to them – in return for payment of their share of the construction costs, annual operating costs (including the cost of the fuel), local taxes and taxes specific to nuclear energy, and the costs relating to decommissioning. In these operations, the partners shared the industrial risks with EDF during the development of the power plants (involving three firsts-of-a-kind) and assume the risks associated with the operation of the power plants. They have, however, no operational role.



Furthermore, EDF signed a second type of generation allocation contract (for a total of 2 GW) enabling its partners to benefit from a proportion of electricity generation from a given fleet. These contracts mainly concern the following power plants:

- Chooz B1-B2 (first-of-a-kind N4): Electrabel and the Belgian company SPE (25%):
- Cattenom 3-4: Electricité de Laufenbourg in Switzerland (7.8%) and the consortium of Swiss electricity companies CNP (21.8%).

Also, on November 30, 2007, EDF signed a generation allocation contract with Enel for the Flamanville 3 plant currently being built (see Section 6.2.1.1.3.5.B.3 below).

#### 6.2.1.1.3.2 Environment, safety and radiation protection

#### A. Environmental safety

EDF is making great efforts to reduce the volume and the environmental impact of the liquid and gas emissions by its nuclear power plants. From 1990 to 2002, while already much lower than the regulatory limits, EDF reduced its liquid emissions by a factor of 30 (excluding tritium and carbon-14). The level of liquid emissions was again cut in half between 2002 and 2007, and is now at a very low limit.

With regards to the management of operating low and average activity ("FAMA" waste) waste, steps have been taken to limit its storage on all nuclear sites. In addition, since 2004, very low-level waste (TFA) is sent to the very low-level waste storage center (CS-TFA) of the French National Agency for the Management of Radioactive Waste (Agence Nationale pour la Gestion des Déchets Radioactifs, or ANDRA) at Morvilliers.

For a description of nuclear waste processing downstream of the cycle as well as decommissioning, see Sections 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues – B. Back-end") and (6.2.1.1.3.6 "Decommissioning of nuclear power plants"), below.

An ISO 14001 certification procedure (see Section 6.4.1.2 ("The methods of implementation of the sustainable development policy") below) was undertaken in 2002 for all units of the Nuclear Operations Division. In 2004, all of the units were certified. The certification was renewed in 2005, and the next renewal is scheduled for 2008.

#### B. A global nuclear safety policy

EDF, in its capacity as a nuclear operator, assumes responsibility for nuclear safety and reaffirms nuclear safety as its main priority in a framework of constant evolution (market competition, environmental issues, etc.)

The implementation of the French nuclear electricity program led EDF to establish safety measures which:

- take into account, from the design stage, the risks that might arise during the operation of the power plants, whether relating to the actual operation of the installations or to internal or external attacks;
- are based both on the application of strict rules of operation, and on the cautious and inquiring attitude of the technical teams encouraged through training and the establishment of a true safety culture;
- are based on the cumulative experience of a standardized fleet of 58 reactors (i.e., almost 1,300 reactor years of operation); and
- benefit from integrated nuclear engineering and R&D within the Group in order to anticipate the correction of failures, maintain the installations in good working order, develop materials/equipment on an ongoing basis, reassess safety margins, monitor technology advances as

well as the implementation of more effective new technologies and the managing of decommissioned sites.

Nuclear safety is subject to numerous controls, both internal and external. The external control of the safety of nuclear facilities in France is carried out by the Nuclear Safety Authority (*Autorité de Sûreté Nucléaire or ASN*).

EDF is subject to the following external audits:

#### • At the national level:

- regulatory inspections carried out on sites by ASN, randomly or on a scheduled basis (approximately 400 inspections per year);
- a safety re-examination process conducted on a 10-year basis has also been in place since 1990. It aims to improve the compliance of operating nuclear plants with safety standards, and to reassess these standards based on feedback and new knowledge. The safety standards reassessed in this way are then set until the next re-examination. The objectives are established by the ASN (which monitors compliance) while EDF proposes solutions to meet them, implementing them after obtaining the approval of the ASN. A safety re-examination was undertaken in the context of the second 10-year inspections of the 900 MW and 1,300 MW plants; the reassessment of safety standards was completed in 2004 for the 900 MW series and in 2006 for the 1,300 MW series. Both series received approval for continued operation until the facilities are 30 years old. At this time they will be subject to a third 10-year inspection, subject to the implementation, for each of them, of the checks and equipment and documentation changes that are identified during the safety review. By the end of 2007, the second set of 10-year inspections had been completed for 32 out of the 34 plants in the 900 MW series, and 5 out of the 20 plants in the 1,300 MW series.

The safety re-examinations for the third 10-year inspections for the 900 MW series and the first 10-year inspections for the 1,500 MW series are under way, and have included in-depth technical discussions with the ASN. The 10-year safety re-examination is an important step in extending the lifespan of power plants (see Section 6.5.4.2 ("Specific regulations applicable to nuclear facilities") below).

On June 14, 2007, EDF awarded Areva a contract to perform the research, maintenance, and upgrades identified during the third 10-year inspections of the 900 MW series. This is the first of the large-scale contracts to be awarded in relation to these inspections.

- At the international level, regular inspections are held making it possible to benefit from the experience gained worldwide:
- the OSART (Operational Safety Review Team) of the IAEA (International Atomic Energy Agency) performs reviews at the request of the ASN with the objective of formulating recommendations and promoting good working practices; and
- the international Peer Review inspections carried out by WANO (World Association of Nuclear Operators) and organized at the request of EDF perform the assessment of safety performance and also help promote best international working practices.

EDF has also implemented internal audit procedures, such as:

- every three to four years, EDF performs overall safety assessments for each power plant, which take place over a three-week period and involve approximately 30 inspectors;
- the General Inspector for nuclear safety and radiation protection, reporting to and appointed by EDF's Chairman, performs audits to assess the

overall safety of the nuclear fleet on an annual basis and to suggest improvements to the company's management.

In relation to the condition of its facilities, EDF would like to reach a level comparable to the best international operators, which requires continued improvement of behavior and practices on maintenance sites, as well as investments focused on the renovation of premises and equipment. At the end of 2006, a program specially developed to improve the conditions of the facilities ("Obtenir un état exemplaire des installations") was implemented in order to bring all nuclear sites up to the best international standards regarding the running of facilities. This investment and maintenance program involves an investment of around €600 million over a period of 5 years.

EDF is subject to the Law of June 13, 2006 relating to nuclear transparency and safety (see Section 6.5 ("Legislative and regulatory environment")). This law guarantees access to information concerning health and the environment to all individuals, and formalizes transparency on nuclear safety.

#### C. Warning system

In the event of an accident, a crisis plan is in place to limit impacts on the environment and on people. To ensure the safety of the installation and the protection of people, the system is based on two closely coordinated plans, designed for both local and national use. These are the Internal Emergency Plan (*Plan d'Urgence Interne*, or PUI), prepared by EDF, and the Special Intervention Plan (*Plan Particulier d'Intervention*, or PPI), prepared by French prefectures in collaboration with the French state and EDF. In order to provide greater effectiveness and thus, improved protection of people, these plans account for the risk of malicious mischief.

The relevance of the system for warning, informing and protecting people is regularly assessed through accident simulation exercises, which make it possible not only to ensure the correct operation of the crisis plan, but also to improve upon it, in particular, by clarifying roles and validating all of the required physical and human resources. Each year, approximately 100 exercises are organized for the entire French nuclear fleet, *i.e.*, approximately one drill every three days. Approximately 10 exercises are on a national level, under the management of the ASN and involve EDF, the prefectures and public authorities.

### D. Major events concerning safety

Events are classified on a scale of 1 to 7 on the INES scale (International Nuclear Event Scale), with 7 being the most serious. Those of no consequence for nuclear safety are classified as discrepancies or level 0 events.

Since the establishment of a scale of this kind in France in 1987, no level 3 event (serious incident – very low external emission, and exposure of the public representing a fraction of the regulatory limits) or above has occurred regarding the French nuclear fleet. Since 2002, a maximum of one level 2 event (incident provoking major breach of safety regulations and/or significant contamination or over-exposure of a worker) has been declared each year for the entire French nuclear fleet, as a result of failures to comply with safety regulations (before 2002, an average of two incidents were recorded every year). Each year, an average of approximately one level 1 event (non-compliance with the approved rules of operation occurring due to equipment failure, human error or shortcomings in the procedures) for each reactor has been reported. The number of events classified each year for the nuclear fleet is therefore approximately one per reactor.

In 2007, no level 2 event was recorded. The average number of level 0 and above events in 2007 is 10.8 per reactor and the average number of classified events (level 1 and above) is 0.8 per reactor. Overall safety results over the last five years are stable.

#### E. Radiation protection

The mobilization of all actors has enabled the continuous improvement of performance in terms of protecting personnel from the effects of ionizing radiation. Thus, the average annual collective dose of all workers, both employees of EDF and outside companies intervening in power plants, has been halved in less than 10 years. In 2007, the average collective dose was 0.63 man-sieverts (mSv) per reactor per year, which is a comparable level to the average values recorded by German, Japanese and American operators for reactors using the same technology, *i.e.*, pressurized water.

EDF continues its efforts to lower the number of individual doses of exposure to radiation above the regulatory limit. Accordingly, the number of workers, whether from EDF or an outside company, having received a cumulative dose over 12 months of between 16 and 20 mSv (annual regulatory limit) reached a maximum of 20 at the end of January 2007 (17 in 2006), and has been falling ever since (2 persons over the rolling 12 months to end–December 2007). However, none of these doses were over 18 mSv. In the coming years, given the levels already achieved, efforts will have to be focused on power plants with the worst dosimetric results, in particular by cleaning their circuits.

Continued improvement in radiation protection involves raising the quality of the radiation protection culture to the same level as the safety culture. This ambition leads to, in particular, the reinforcement of the teams of radiation protection specialists in the field in terms of both number and skills.

#### 6.2.1.1.3.3 Performance of the nuclear fleet

The nuclear generation variable cost, mainly made up by the fuel costs, is low since it represents less than 30% of operating costs<sup>9</sup>. Therefore, the main competitive levers of the nuclear fleet are the amount of generated energy and the optimization of fixed operating costs. The levers relating to the fuel cycle are further discussed in Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues"). All things being equal, EDF is seeking to increase its nuclear-generated production and to cut its non-fuel operating costs.

#### A. Operation methods of the nuclear fleet

#### Generation Cycle

PWR facilities alternate between cycles of 12 or 18 months of production and shutdowns so that part of the fuel charged into the core can be replaced.

At the end of each generation cycle, there is an alternation between two types of programmed shutdowns:

- an ordinary shutdown for refueling only (*Arrêt pour Simple Rechargement*, or "ASR"), during which refueling is the main operation performed, although light maintenance or periodic testing may also take place in addition to the refueling. This shutdown generally lasts an average of around 35 days;
- a partial inspection for refueling and maintenance, generally lasting an average of around 55 days.

<sup>&</sup>lt;sup>9</sup> Operating costs are cash costs and are defined as follows: fuel costs (including back-end expenses in the fuel cycle), operating expenses (external services and purchases, employees) and maintenance costs (expenses and investments). They do not include investments related to construction, decommissioning expenses, or depreciation and provisions.



Every ten years, the power plant is shut down for an average of about 90 days in order to carry out a 10-year inspection, during which EDF carries out an in-depth examination of the main components.

#### Operation of EDF's nuclear fleet

Owing to their low variable cost, nuclear generation means are first and foremost used as base-load generation means, after run-of-river hydropower. The variations in consumption of EDF's final customers during one year (summer-winter, day-night) and the current restrictions in fluidity of the wholesale markets due to limited interconnections, lead to nuclear power also being used for mid-merit generation. Strong variations in seasonal consumption in France (in 2007, a factor of 1.6 was observed between respective monthly consumptions in August and December) and variations in levels of consumption during the winter months (for a drop in temperature of 1°C in winter, consumption in France rises by 1,700 MW (source: RTE-EDF Transport), require that nuclear fleet shutdowns be concentrated between April and October. Following the 2003 heat wave, the unit shutdown schedule was modified to reduce the number of shutdowns in July and August and maximize the operation of seaside units, whose cooling method does not depend on rivers and smaller water streams.

In order to reconcile those issues concerning the strong variations in seasonal consumption in France, the availability of power plant units, and the efficient use of reactor fuel, EDF has now adopted operating cycles of 12 and 18 months for its fleet of power plants. At the end of 2007, they were divided as follows:

- 28 units of the 900 MW series have an operating cycle of 12 months;
- 6 units of the 900 MW series and the 20 units of the 1,300 MW series have an operating cycle of 18 months;
- the N4 units are being switched from a 12-month to 18-month cycle (ALCADE management); the first unit was switched in November 2007 and the remaining three will be switched by summer 2008.

#### B. Generation and technical performances

The nuclear fleet's generation amounted to 418 TWh in 2007, 2.4% (or around 10 TWh) less than in 2006. This decrease is due to the following two factors:

- first, a generic failure affecting some of the plantssteam generators, due to the partial obstruction of passages used for the secondary water circulation system (clogging of steam generators); and
- to a lesser extent, a longer than average number of days of unplanned unavailability due to non-recurring technical events, such as maintenance work on alternators.

The 418 TWh generation in 2007 corresponds to a load factor, Kp (defined as the generated energy compared to the maximum theoretical energy, the latter notion corresponding to the constant operation of the installed capacity throughout the year) for EDF's French nuclear fleet of 75.6%. This is 1.8 percentage points lower than 2006, as a result of the following two factors:

• a 3.4 percentage point decrease since 2006 in the availability factor, Kd, (the available energy<sup>10</sup> as a percent of the maximum energy that could be generated if the installed capacity was operated all year long), to 80.2% in 2007;

offset slightly by a 1.6 percentage point increase since 2006 in the utilization factor, Ku (the energy generated as a percent of the energy available), to 94.2%.

The clogging of steam generators reduced the 2007 Kd by 2.2 percentage points. This fact was first noticed at the Cruas plant in 2006, and lowered the 2006 Kd by 0.5% percentage points. Based on a review performed by EDF in 2007 on the scope of the issue, the clogging was estimated to potentially affect 15 out of the 58 units in the French fleet (eight 1,300 MW units and seven 900 MW units), and will require that the steam generators be chemically cleaned. A chemical cleaning process was developed in 2007 and has already been used on four units of the fifteen concerned; six units are scheduled to be cleaned in 2008 and the remainder over the coming years. The overall impact of this generic failure is expected to reduce the Kd by 2 percentage points in 2008 and 2009. EDF will review several options in 2008 for preventing future cloggings.

The company's target Kd is to reach 85% in the mid-term, by carrying out the following actions:

- solving the clogging issue;
- full implementation of the plan to reduce planned and unplanned shutdown periods; and
- continued work to switch the four units of the 1,500 MW series to operating cycles of 18 months instead of 12 months, with a full effect expected by 2010.

The effects of these levers will however be tempered by heavier shut-down programs over the coming years due to an increased annual number of 10-year inspections and significant plants maintenance operations aiming to ensure a longer lifespan for the power plants.

EDF considers that there is also long term potential to improve the "load factor" (Kp) through the development of interconnections at a European level, which would enable the French nuclear fleet to find further outlets.

#### 6.2.1.1.3.4 THE NUCLEAR FUEL CYCLE AND RELATED ISSUES

French nuclear energy production represented 418 TWh in 2007, which corresponds to a volume of approximately 1,200 tons of fuel consumed (tons of heavy metal, uranium and plutonium) a year, including approximately 1,080 tons of  $\rm UO_2$  fuel (fluorinated and then enriched natural uranium), 100 tons of MOX fuel (fuel generated from reprocessed plutonium) and 20 tons of RepU fuel (reprocessed uranium).

The nuclear fuel cycle includes all of the industrial operations conducted in France and abroad which make it possible to deliver fuel for energy generation in the reactor, then to discharge and process it. The cycle is completed in three stages:

- front-end (more than two years): the processing of concentrates from uranium ore, the conversion, enrichment and fabrication of fuel assemblies:
- the heart of the cycle corresponding to the use of fuel in the reactor (three to five years): receipt, loading, operation and unloading; and
- back-end: storage in pool, processing of burnt fuel, conditioning of radioactive waste and recycling of recoverable material, temporary storage of conditioned waste before long-term management, as provided for by Law n° 2006-739 of June 28, 2006 concerning the long-term

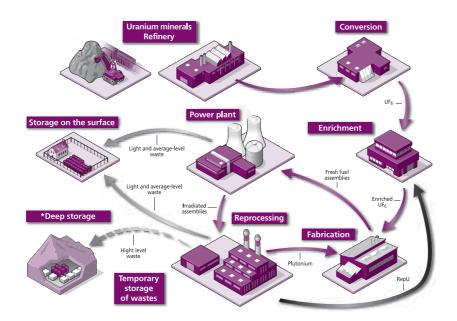
<sup>&</sup>lt;sup>10</sup> The available energy is equal to the maximum theoretical energy less losses for technical reasons inherent to power plants, such as planned shutdowns, unplanned outages due to failure or safety requirements, and regulatory tests.

management of radioactive material and waste ("the Law of June 28, 2006").

EDF ensures the coherence of all of the operations in the fuel cycle. Generally speaking, front-end and back-end operations are carried out by subcontractors, generally on the basis of multi-year contracts. EDF carries out the heart of the cycle operations and acquires most of the raw mate-

rials as uranium concentrates (U308), transformations into more elaborate products being carried out by industrials through services contracts (conversion, enrichment and realization). EDF owns the fuel and is responsible for it throughout all the fuel cycle stages.

The diagram shows the different stages of this cycle:



\* As for what concerns the in-depth-storage of long-life high-level waste, see Section "B. Back-end – Storing conditioned ultimate waste" below.

The cost of fuel is divided into approximately two-thirds front-end and one-third back-end. Front-end, the raw materials (including conversion) the enrichment and the fuel fabrication represent each approximately one-third of the fuel cost.

#### A. Front-end

In order to ensure the continuity and reliability of the supply for its reactors, EDF retains overall control of the operations at each stage in the cycle, and manages a portfolio of contracts for the long term.

Through stock build-up at each front-end stage of the fuel cycle (natural uranium, converted or enriched uranium, stored fresh fuel assemblies), EDF seeks to avoid resorting to the short-term market in case of production fluctuations in the mines or the cycle plants. These stocks provide guarantees in terms of security of supply and price, in a high-pressure upstream materials and services market.

### Natural uranium supply

Most of EDF's uranium supplies are guaranteed in the long-term by contracts for periods of 7 to 15 years already signed, or by reciprocal commitments that will be confirmed in the long-term by definitive contracts (options guaranteeing access to volumes subject to conditions of price negotiation). The primary objective of this long-term supply policy is to guarantee the long-term security of EDF's supplies and it also contributes to partial hedging of the price risk.

A significant part of the supplies is provided by Areva from various geographic sources. As of 2004, again in order to reinforce the security of its

supplies, EDF adopted a diversification policy which led it to increase the use of suppliers other than Areva, and enabling access to high-potential areas such as Australia, Kazakhstan, and Canada.

These long-term supply contracts were concluded by EDF between the end of 2004 and the beginning of 2006 on the basis of prices lower than current spot and long-term market prices. These prices are revised according to formulae generally including, in variable proportions:

- a fixed basic price, revalued or not depending on the case, according to inflation rates:
- a variable portion tied to various indexes (including the price index published by EURATOM, representative of European electricity providers' supply prices), mostly stemming from previously concluded longterm contracts:
- in certain cases, floor and ceiling prices.

In time, these indexation formulae limit and smooth out the variations in the rise in market prices while enabling to benefit from potential falls in price.

#### Conversion

A significant part of EDF's needs are covered by the Comurhex plant (Areva group), as well as other international producers, such as Cameco in Canada, Converdyn in the United States and Tenex in Russia.

The contracts that EDF signed in 2007 should guarantee its supply at least until 2016. The costs associated with the conversion stage account for a small part of the cost of fuel.



#### U-235 enriched uranium

The majority of the enrichment services procured by EDF come from the Eurodif-Georges Besse I plant (Areva group), which uses gas diffusion technology. The Areva group has decided to replace the existing Eurodif plant at the beginning of the next decade with a new installation (Georges Besse II), which will use ultracentrifugation technology, a more modular technology that requires less electricity.

EDF and Areva are currently negotiating the conditions whereby EDF will be supplied by a portion of the future enrichment capacity from George Besse II. Morever, in 2007, EDF and Areva extended their contractual relationship relating to the use of George Besse I until 2010.

In parallel, in order to improve the competitiveness of its supply as rapidly as possible through use of ultracentrifugation enrichment services, EDF secured significant coverage of its needs from Urenco and Tenex, starting in 2006.

#### RepU reprocessing

RepU reprocessing makes it possible to use uranium from processing burnt fuel. It provides one to two reloads per year, which are carried out at two units of the Cruas power plant. The annual quantity that is not used is stored in a stable form in order to be used at a later stage, depending on market trends for natural uranium. The increase in the price of natural uranium has led EDF to examine the financial benefit of extending this procedure to other reactors.

#### Fabrication of fuel assemblies

Contracts with two fuel producers, Areva NP and Westinghouse, were renewed in early 2007 to cover all requirements from 2008 to 2012, and include provisions relating to product developments.

Most of EDF's needs will be covered by the contract signed with Areva NP in March 2007

## Strengthening competitiveness by improving the fuel energy out-

EDF is implementing a strategy aiming at gradually increasing the efficiency of nuclear fuel for its different series. The aim is to increase fuel energy efficiency by increasing the combustion rate and optimizing operating cycles in order to increase the availability of the nuclear power stations, while enabling outage profiles that are consistent with the seasonal variation of demand. The average combustion rate of  $\rm UO_2$  has risen from 33 GWj/t at the start of the 1980s, to 45 GWj/t today.

#### B. Back-end

EDF takes responsibility for the use and processing of its spent fuel and associated waste. Areva is responsible for processing and ANDRA is responsible for long-term management operations for the storage of ultimate waste, in accordance with the Law of June 28, 2006 concerning the long-term management of radioactive material and waste.

EDF's strategy, in agreement with the French State, adopted with regards to the fuel cycle, is to process spent fuel and to recycle the plutonium separated in the form of MOX fuel. Given the available options, this means that approximately 850 tons of burnt fuel are processed each year, out of approximately 1,200 tons of fuel consumed each year. This strategy, combined with an improvement in fuel output (enabling a reduction in the quantities of spent fuel for the same energy generated), makes it possible to ensure, with existing industrial flexibility, that the quantities of spent fuel awaiting reprocessing in the meantime remain in line with the capacities of storage pools.

The decree authorizing EDF to use MOX fuel in reactors 5 and 6 at the Gravelines plant was published in the French official journal on November 3, 2007. This brings the number of EDF reactors authorized to use MOX fuel from 20 to 22.

#### Processing spent fuel from EDF's nuclear power stations

Spent fuel awaiting processing is temporarily stored under water in cooling pools, under conditions that are recognized as being safe over time periods of several decades. At the end of a period of approximately 15 years after they have been unloaded from the reactor, spent  $\rm UO_2$  fuels are processed at Areva NC's The Hague site in order to separate the products that can be recycled from the waste. The waste is subsequently conditioned and temporarily stored at this site in specific premises.

The relationship between EDF and Areva NC concerning the transmission, processing and recycling of spent fuel for the 2001-2015 period was formalized by a protocol signed in August 2001.

This protocol was principally implemented by a contract dated August 24, 2004, applicable for the period 2001-2007. This contract organized the transmission, processing and conditioning activities with a view to recycling spent nuclear fuel from EDF's power plants until the end of 2007. It specified:

- the handling and transmission of spent nuclear fuel from EDF's power plants to The Hague reprocessing plant;
- the separation of the fuel materials that can be recycled (uranium, plutonium) from high-level waste for 5,250 tons of spent fuel, *i.e.*, an average of 850 tons per year with effect from the date the 2001 protocol was signed:
- the conditioning of radioactive waste contained in spent fuel; and
- the intermediate storage of the conditioned waste pending their discharge to a long-term management center.

EDF and Areva are working together to implement a new agreement for the period after 2007, and have reached a temporary agreement for 2008. This interim agreement entered into with AREVA for the year 2008 has been renewed in March 2008 for the operations expected in 2009 and also covers the industrial operations of the MELOX factory at Marcoule (manufacturing and delivery of MOX assemblies).

### Storing conditioned ultimate waste

Radioactive waste, depending on their nature, level of radioactivity and the lifetime of their constituent radionuclides, have been classified into different categories: from high-level waste to low- and medium-level waste to very low-level waste. They are called "long life" when their period of activity lasts for more than 30 years, and "short life" otherwise.

• Long-life high-level waste

French Law n° 91-1381 of December 30, 1991, the Bataille Law, has specified research initiatives concerning the various possible options for managing long life, high-level waste, and has specifically identified three solutions for the future of this waste (see Section 6.5 ("Regulatory and legislative environment) below).

- separation transformation (which involves separating long life radioactive elements and transforming them into shorter-lived elements):
- storage in deep geological layers; or
- improvement of the long-term storage and conditioning processes.

On the basis of the works carried out in the context of the Bataille Law, another law passed on June 28, 2006 defines a research program for the long-term management of long-life, high-level waste.

It establishes a national plan for the management of radioactive materials and waste and provides that "following temporary storage, ultimate radioactive waste that cannot be stored at surface level or at a shallow depth for nuclear safety or radioprotection reasons, is to be stored in deep geological layers." It indicates notably that: "in order to ensure[...] the management of long-life high- or medium-level radioactive waste, research and studies relating to this waste are being carried out[...] and notably reversible storage in deep geological layers[...] in order to choose a site and create a storage center so that the request for its authorization[...] be examined in 2015 and, subject to this authorization, the center be put into operation in 2025" (for more information regarding Law dated June 28, 2006, see section 6.5.4.2 ("Specific regulation applicable to nuclear plants") below).

The processing of spent fuel enables the vitrification of long-life, high-level waste, which ensures very high-quality conditioning under a reduced volume. All of the long-life, high-level waste produced in this way, corresponding to the operation of the natural uranium graphite gaz (UNGG) and to 40 years of operation of the current PWR facilities, will represent a volume of approximately 6,700 cubic meters. While awaiting decisions concerning storage in deep geological layers in the context of the Law of June 28, 2006, conditioned long-life high-level waste is temporarily stored at the Hague site in specific premises.

#### • Long life medium-level waste

The structures of the assemblies (shells and nozzles, clad pieces, etc.), which also result from the processing of spent fuel, constitute activated waste. Unlike long life, high-level waste, these types of waste do not give off heat and constitute long life medium-level waste. They are currently compacted and conditioned in stainless steel containers. Other long life medium-level waste is produced by research or the fuel manufacturing cycle. The total volume, including the waste resulting from the operation of the Uranium Naturel Graphite Gaz facilities and that resulting from 40 years of operating the current PWR facilities, will be approximately 37,000 cubic for the part of EDF. They are suitable for faster storage than long life, high-level waste because the lack of heat emission does not require a long cooling off period before storage.

As with long-life high-level waste, long-life medium-level waste is temporarily stored at the Hague site in specific premises, awaiting decisions to be taken in the context of the Law of June 28, 2006 concerning storage in deep geological layers.

#### • Low and very low-level waste

Short life, low-level waste comes from nuclear installations (gloves, filters, resins, etc.). It is stored on the surface at the Aube storage facility managed by ANDRA. For long life, low-level waste, such as radiferous waste and graphite waste, dedicated storage facilities are being studied (see Section 6.2.1.1.3.2 ("Environment, safety and radiation protection") below). The Law of June 28, 2006 provides for "the finalizing of storage solutions for graphite and radiferious waste, in order that the storage center may be commissioned in 2013."

Very low-level waste is waste whose radioactivity is very close to natural radioactivity. Mainly arising from the decommissioning of nuclear installations, it results mainly from rubble (concrete, scrap, lagging, piping, etc.). On February 21, 2005, EDF, Areva NC, CEA and ANDRA signed a contract

regarding the acceptance by the latter of very low-level waste produced in order to store it at the Morvilliers facility for 30 years with effect from September 26, 2003. An application protocol was also signed to specify the responsibilities of the parties for the period 2003-2008.

## Acceptance of future charges relating to the management of spent fuel and long term management of radioactive waste

Each year, EDF makes provisions for the downstream of the nuclear fuel cycle in France (see note 31.3 to the consolidated financial statements for the year ending December 31, 2007).

The cost of storing short life radioactive waste can be determined on the basis of contracts entered into with ANDRA. These costs are recorded as the waste is stored. Consequently, this waste is not subject to special provisions in the consolidated financial statements. However, a provision is recognized for the cost of storing waste arising from power plant decommissioning.

The future management costs of long life, medium- and high-level waste resulting from the processing of burnt fuel (including fuel in the reactor but yet irradiated) are provisioned. In order to estimate the amount of the provisions to ensure coverage of the future charges relating to the long-term management of this waste, EDF used deep geological storage of waste as an assumption, in line with the choice of other countries (Sweden, Finland and Belgium).

Upon the initiative of public authorities, a working group including the public authorities, ANDRA and the nuclear waste producers (EDF, Areva, and CEA) worked from June 2004 through the first half of 2005 to evaluate the cost of geological storage for long life, medium- and high-level waste in order to establish a common benchmark on the subject. In 2005, EDF established a reasonable evaluation based on this work and ensured its consistency with international data. This evaluation takes into account the share of waste for which EDF is responsible and the volumes produced up to the end of the relevant accounting period (see note 31.3 to the consolidated financial statements for the year ended December 31, 2007).

The Law of June 28, 2006 (see note 31.2 to the financial statements for the year ended December 31, 2007) established the storage of waste in deep geological layers as a reference solution.

In accordance with the provisions of the aforementioned law and implementation texts published in 2007, EDF increased the amount of its provisions, taking into account notably:

- the new time limits set by the law,
- the new notion of "engaged fuel" defined by the decree of March 21, 2007 as being the entire fuel in the reactor, whether irradiated or not;
- the new definition of operating cycle defined by the decree of February 23, 2007, specifying that the operating cycle of the fuel refers to industrial plants built or in the process of being built;
- $\bullet$  the notion of plant operator for the valuation of the charges;
- the expressed financing needs of ANDRA, and public interest groups (*Groupements d'Intérêt Public*) from Haute-Marne and Meuse, as well as its own accompanying territorial projects.

#### 6.2.1.1.3.5 Preparing for the future of the nuclear fleet

EDF believes that nuclear energy provides a lasting and economically efficient solution for future energy needs, in a context of decreasing fossil resources where proven worldwide reserves of fossil energy are limited, based on consumption in 2004, at approximately 40 years for oil, 65 years for natural gas and 165 years for coal (AIE – World Energy Outlook 2006).



According to the same sources, the estimated uranium reserves will last for approximately 100 years at the current level of nuclear production. The development of a new generation nuclear reactor (called the fourth generation, see below) will enable to reduce significantly the level of consumption of natural uranium and increase the level of these energy reserves to several thousand years. Furthermore, nuclear energy has the advantage of not emitting greenhouse gases.

The Program Law of energy policy guidelines of July 13, 2005 (LPOPE) (see Section 6.5, ("Legislative and regulatory environment")) provided for the rapid launch of an EPR in France, confirming the preservation of the nuclear option. For EDF, preparing for the future of the nuclear fleet depends on three strategic factors:

- extending the lifespan of the nuclear power plants beyond 40 years;
- preparing for the renewal of the nuclear fleet with the development of a first-of-a-kind EPR unit; and
- increasing the generation capacity of the existing fleet by assessing the feasibility of boosting the power of low-pressure rotors at some of the 900 MW units, and studying ways to increase the power of twenty 1,300 MW units. These changes could lead, from 2015, to a total increase of generation capability between 8 to 15 TWh.

#### A. Lifespan of EDF's PWR installations

Studies carried out by EDF have shown that a 40-year lifespan is technically achievable for the existing units, without EDF being able to foresee whether formal approval will be given, plant by plant, by the ASN. By mobilizing its R&D, its engineering and adapting its maintenance policy, EDF has set itself the target of increasing the lifespan of its nuclear generation units beyond 40 years.

R&D efforts and the technical progress make it possible to consider the use of the power plants for a period of more than 40 years (in particular, for the vessel of the reactor and containment facilities, which are considered to be non-replaceable). In the United States, the operating licenses of numerous power plants have also already been extended from 40 to 60 years; by the end of January 2008, 48 licenses had been extended in this way (including 32 for pressurized water reactors) and 15 were still being prepared (Source: US Nuclear Regulatory Commission). The process has also begun in Sweden.

There appears to be no legislative or regulatory text limiting the lifespan of the power plants to 40 years. Nonetheless, authorization for the operation of a power plant must be validated by the ASN every 10 years within the frame of the safety re-examination.

## B. The European Pressurized Reactor ("EPR") and associated challenges

## 1. EPR: a major industrial challenge

In anticipation of the industrial development of new-generation reactors (fourth-generation: sodium fast reactors, gas high-temperature reactors, gas or lead-bismuth cooled reactors, etc.), which will not appear industrially on the market before 2040, most of the leading nuclear contractors and nations are developing intermediate generation reactors (3 and 3+ generation) which are an improvement (in terms of cost and safety) on the existing reactors and which will be available on the market in the shorter term, such as the Russian AES 92, Westinghouse's AP 1000, the ESBWR of General Electric and the EPR.

EDF has opted for the EPR technology to prepare the renewal of its nuclear fleet in service. This reactor is the result of the joint experience of operating the two biggest European nuclear fleets – the French and German fleets – and its safety standard has been examined by the German and French safety authorities.

As part of the renewal of European generation facilities, EDF wishes to maintain the comparative advantage it acquired in the 1970s and 1980s, with the development of a standardized and industrially controlled nuclear fleet.

The decisions governing the renewal of EDF's nuclear fleet will be made at the earliest by 2015 with commissioning after 2020, in particular with regards to extending the lifespan of the existing fleet.

Therefore, EDF has decided by undertaking the role of architect-assembler, the construction of a first-of-a-kind EPR in France, with the Flamanville 3 project, in order to be ready in industrial terms for the renewal of its power plants:

- by managing a reactor model that has been technically proven and that complies with the requirements of the ASN;
- by providing an operational industrial organization, established during the construction of the first model; and
- by acquiring sufficient experience operating a first-of-a-kind unit, before launching construction of a possible series.

Once commissioned in 2012, this reactor will deliver base-load competitive energy, which can be used to address evolutions in demand. The total cost<sup>11</sup> of Flamanville 3 was estimated at €46 euros / MWh in 2006 (in 2005 euros).

#### 2. The EPR industrial project

The EPR is a 1,600 MW reactor developed from the early 1990s by Areva NP (Areva group with a 66% interest and Siemens with a 34% interest), in partnership with EDF and German electricity companies, who participated in financing its development and contributed the technical knowhow acquired through the operation of their nuclear fleets. Like other reactors in use in France, the EPR is a pressurized water reactor. It has already been studied by the safety authorities, and benefits from technological and operational advances that have been incorporated into the most recent French and German reactors.

The breadth of the EPR industrial project also presents ambitious goals, relating to:

- safety;
- environmental protection;
- technical and economic performance;
- optimized organization of project management in this nuclear unit.

*Safety.* The development of the EPR new kind of reactor encourages EDF to increase the safety of its nuclear fleet by reducing the likelihood of a serious accident and limiting its potential consequences. These safety goals were adopted since the reactor's design phase.

*Environmental protection.* Through its participation in the EPR project, EDF continues to maintain its commitment to environmental protection, by significantly improving its performance in comparison with its existing fleet, through continual progress using feedback obtained from its experience.

<sup>&</sup>lt;sup>11</sup> Equal to the present value of estimated costs in euros per MWh, including construction costs, interim interest charges, decommissioning costs, operating and maintenance costs, taxes and fuel costs, including costs relating to the back-end cycle.

Compared to the current 1,300 MW units, the EPR project is accordingly intended to achieve:

- a 30% reduction in radioactive waste (reduction of the quantities of radiation materials in the reactor: uranium and structure waste);
- a 30% reduction of radioactive liquid emissions per MWh produced (aside from tritium and carbon 14); and
- a 30% to 40% reduction of radioactive gas emissions per MWh produced (aside from carbon 14).

In terms of radiation protection, the targeted annual collective dose is one-half the amount of the average figure for units operating in France.

Technical and economic performance. The EPR project's performance goals are the following:

- obtaining a thermal power capacity between 4,300 and 4,500 MW for a net electric power capacity of approximately 1,600 MW;
- a 91% availability factor thanks to certain design principles derived from the German reactors and allowing generation while maintenance operations are being carried out;
- using fuel in the best possible way (60,000 MW per day and per ton);
- reaching a technical lifespan of 60 years.

The new EPR, replacing the current PWR fleet should allow some reductions in operating expenses per kW and per kWh thanks to its technical performances and its size effect currently noted between the PWR 900 and the PWR 1.300 series.

"Architect-assembler engineering". In renewing its fleet, EDF intends to maintain direct control of:

- the design and operation of its power plants;
- the organization of development projects;
- schedule and costs of construction;
- its relations with the ASN; and
- the direct integration of operating feedback.

This control defines the role of architect-assembler and corresponds to the position adopted by EDF during the development, renovation or decommissioning of its generation assets, and is based on its internal engineering capabilities.

The EDF Group's integrated engineering skills are an important asset for the management over the long term of the performance and safety of its nuclear, hydropower and fossil-fired generation assets.

### 3. Progress made on the project

Building an EPR nuclear generation unit. In October 2004, EDF's Board of Directors decided to undertake the process of building an EPR nuclear generation unit in France located in Flamanville.

Following a public debate organized by the French Commission for Public Consultations (CNDP) concerning the construction of a first-of-a-kind EPR reactor, EDF's Board of Directors decided on May 4, 2006, to begin building an EPR reactor in Flamanville.

Safety Report and government authorizations. The building authorization decree for the Flamanville nuclear facility was published in the French official journal on April 11, 2007, and the main building permit was obtained on April 24, 2007. However, some associations have filed complaints against some of the authorizations (see Section 20.5, "Legal and arbitration proceedings.").

In accordance with its commitments made during the public debate, EDF has acted to ensure a better level of transparency. In September 2006, EDF issued a public version of the preliminary safety report, and on November 6, 2006, signed an agreement with the Flamanville local information commission (CLI) and the National CLI Association (ANCLI) giving experts from these associations access to the project's technical information for the purposes of analysis.

Work at the site. Construction is proceeding according to schedule. Initial preparatory work including the earthwork and digging (to build tunnels, structural walls, etc.) were completed at the end of 2007. The first concrete was poured in December 2007 as planned, and marked the start of construction of the plant's industrial buildings. Start-up of the reactor is scheduled for 2012.

Feasibility studies. Design studies have been completed. Feasibility studies are underway to select plant equipment suppliers. Accordingly, detailed studies are being carried out by Sofinel (subsidiary owned 55% by EDF and 45% by Areva) concerning the nuclear field. These studies aim to produce the necessary detailed documents for the construction of Flamanville 3 (civil engineering guideplans, installation of piping system and electric cables, etc.).

Progress made on the studies and work is consistent with the goal that was set

Supply and work contracts. The Flamanville 3 EPR was estimated in 2006 to cost €3.3 billion, based on 2005 economic conditions. EDF has sent out international requests for proposals for all main contracts following international requests for proposals, and by the end of 2007 almost 95% of the total contracts had been awarded. The most important contract is the nuclear steam supply system contract concluded with Areva.

*Industrial partnership.* On November 30, 2007, EDF and Enel signed an industrial partnership agreement for nuclear power generation, with the following terms:

- Enel has invested in Flamanville 3 up to 12.5% of the construction and operation costs as well as decommissioning costs and long-term management of nuclear waste;
- Enel receives in return 12.5% of the electricity generated by Flamanville 3, over the time of its operation, delivered in France on the RTE-EDF Transport transmission network;
- EDF is the operator of the Flamanville 3 facility, assuming full nuclear responsibility and will ultimately make all of the decisions; and
- Enel can assign its engineers to teams managing the site as it is being built or while it is in operation, in order to acquire skills in nuclear power generation.

Enel has the option to invest in the next five EPRs that EDF may build in France, under the same terms and conditions as the ones for the Flamanville first-of-a-kind reactor.

In order to exercise these options, Enel must give EDF a right to participate, under the same terms and conditions as those for Flamanville 3, in the construction of EPRs which Enel may develop in Italy or elsewhere in Europe, or in other investment projects of the same type.

Before these investments are completed, Enel can progressively acquire the power generated by EDF's existing nuclear facilities, up to a total of 1,200 MW.

Enel and EDF have also signed a Memorandum of Understanding (MOU)



concerning fossil-fired power plants (see Section 6.2.1.1.5.2).

#### 6.2.1.1.3.6 DECOMMISSIONING OF NUCLEAR POWER PLANTS

EDF takes full financial and technical responsibility for the decommissioning of its nuclear power plants. For EDF, the issue is to demonstrate, through the decommissioning process, its control of the entire life cycle of the means of nuclear power generation.

The decommissioning of nuclear power plants involves three levels, according to a classification defined by the IAEA in 1980:

- Level 1: shutdown of the plant, fuel unloading, draining of circuits (99.9% of radioactivity is eliminated), followed by final shutdown: dismantling of non-nuclear facilities that are permanently decommissioned, with limited access;
- Level 2: dismantling of non-nuclear buildings and nuclear buildings excluding the reactor building, packaging and evacuation of wastes to storage facilities, isolation – containment – the section of the facility surrounding the reactor is kept under surveillance;
- Level 3: complete dismantling and removal of the reactor building, and
  of materials and equipments that are still radioactive; surveillance is no
  longer necessary; following these operations, the site may be re-used
  for industrial purposes.

In practice, the operations leading from Level 1 to Level 2 are conducted consecutively over a period of time of approximately 10 years after the reactor ceases production. A waiting period may occur between the end of operations leading to Level 2 and the beginning of operations leading to Level 3, in order to allow the radioactivity in the irradiated materials to decay. The length of this waiting period may vary, depending on the comparative interest of radioactive decay and the length of time the facility must be monitored and can depend on the re-use envisaged for the site. At the end of this waiting period, the length of time spent on operations leading to Level 3 is estimated to be approximately 10 to 15 years.

## 1. Decommissioning of first-generation power plants that have been shut down

EDF has chosen to completely dismantle power plants that have been shut down (one PWR: Chooz A, one heavy-water reactor (HWR): Brennilis, the Creys-Malville fast neutron reactor and the six UNGG-type reactors) by 2025. The sites remain the property of EDF, and they will remain under its responsibility and monitoring. With regards to the PWR power plants, certain decommissioning options, including those relating to the timeframe, have not yet been finally decided.

Given its role as responsible owner, EDF will act as the contracting authority for the decommissioning.

The regulatory framework for decommissioning was established and the authorization process was completed in 2003. The authorization received is granted by a single decree, following the ASN agreement allowing for complete decommissioning, and by key meetings to be held with the ASN and an internal authorization procedure for the operator between each meeting, independent of the operational staff and audited by the ASN (see Section 6.5 ("Legislative and regulatory environment")).

In 2007, a decree was issued for the full decommissioning of the Chooz

A reactor. With regard to the UNGG sites, public consultations for the full decommissioning of Saint-Laurent A and Chinon A proved favorable, as well as the opinion from the ASN Permanent Working Group<sup>12</sup> on the safety report for the dismantling of Bugey 1.

Regarding the Brennilis site, on June 6, 2007 the French Conseil d'Etat cancelled the decree authorizing the reactor to be fully dismantled, following an appeal from an association, because the results of an impact study on the dismantling work had not yet been issued publicly. EDF has taken steps to ensure that the facility will not pose a threat while the dismantling work is halted, and plans to file a new authorization request with the ASN by July 31, 2008.

The decommissioning of the nine shutdown EDF's first-generation units will produce 1,000,000 tons of primary waste materials, which include 2/3 of standard waste material, no high-level waste. The remaining 1/3 comprises very low to medium-level waste including about 7% waste requiring new dedicated storage facilities.

The following waste evacuation procedures are currently being implemented:

- The Premises for Conditioning and Temporary Storage of Active Waste project which was launched at the Bugey site. The public survey conducted in summer 2006 received a favorable opinion. Technical assessment by the ASN is under way. A request for proposals for the design and construction has been issued. The start of operations is scheduled at the end of 2012.
- The Graphite Storage Center, which is written in the Law of June 28, 2006 concerning the long-term management of radioactive material and waste, to be put into operation in 2013.

## 2. Decommissioning costs and assets constituted in order to cover long-term commitments

#### Decommissioning costs

Since the beginning of operations at its power plants, EDF has made provisions to cover decommissioning operations, engineering, surveillance and maintenance of facilities, site security (see note 31.4 to the consolidated financial statements for the year ended December 31, 2007). Conditioning, transportation and storage (by ANDRA) of decommissioning waste materials accounted for as decommissioning provisions in 2006 were reclassified in 2007 into provisions for back-end nuclear cycle because of Law dated June 28, 2006 and its implementation texts (see note 31.2 to the consolidated financial statements for the year ended December 31, 2007). The allocated amounts correspond to EDF's estimate for decommissioning costs incurred in order to reach Level 3.

With respect to PWR-type reactors, the provisions were made on the basis of an estimated amount of €300 (2007 euros) per kW¹³ installed, or approximately 15% of the total cost of investment of the nuclear portion of the facilities. This estimated decommissioning cost (including long term waste management costs), initially assessed by the Peon Commission (1979), was confirmed by detailed studies carried out in 1999 on the basis of a representative example: the Dampierre site (a site with four reactors). EDF will update the detailed decommissioning cost estimates by 2010.

Furthermore, an international comparison conducted by the OECD in late

<sup>&</sup>lt;sup>12</sup> A working group comprised of experts and administration representatives, which the ASN has charged with investigating safety issues related to the construction, start-up, shut-down, and operation of nuclear facilities.

<sup>&</sup>lt;sup>13</sup> Compared with €294 (2006)/kW and €288 (2005)/kW.

2003 showed that EDF's estimates are consistent with the estimates made by other countries. EDF's estimates are approximately 25% above the estimates made for Spanish power plants and 15% below estimates made for German power plants. With respect to Germany, the difference with EDF's estimate may be explained by the use of a different policy for managing very low-level waste, long-life very low-level waste and long life medium-level waste (reprocessing and storage in Germany – storage in France).

Unlike the PWR facilities that are in operation, shut down first-generation reactors are of different types, and the estimated decommissioning costs have been established reactor by reactor.

• Third-party installations: The Hague

In the extension of the contract signed on August 24, 2004 on fuel reprocessing (see Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues")), EDF and Areva NC (ex-Cogema) wanted to clarify their respective responsibilities by negotiating the legal and financial conditions of the transfer to Areva NC of EDF's financial contribution to the dismantling of the installations of The Hague and to the recovery and conditioning of older waste. The inflation and discount rates, the base rate, EDF's share of estimated expenses as well as the repayment schedule, were agreed between EDF and Areva NC at the end of September 2003. The negotiations of the terms of this agreement concluded on the principle of a compensatory discharge payment made to Areva NC according to precise terms yet to be fixed (see note 31.3 to the consolidated financial statements for the year ended December 31, 2007).

## Assets available to cover long-term nuclear-related commitments (outside the operating cycle)

In accordance with a decision made in June 1999 by EDF's Board of Directors, EDF gradually built-up the assets dedicated to cover long-term nuclear commitments, by making annual allocations starting in 2000. As of December 31, 2007, these dedicated assets had a market value of €8.6 billion (see note 24.3 to the consolidated financial statements for the year ended December 31, 2007).

On September 5, 2005, EDF's Board of Directors agreed to accelerate the pace of asset allocation, so that it can cover all of its commitments by the end of 2010. The French Law passed on June 28, 2006, related to the management of radioactive waste and materials substantiated this decision, and further legislation issued in 2007 specified the type of assets to be designated for coverage.

In accordance with the law, in June 2007 EDF submitted its first 3-year report on its ability to finance its nuclear-related expenses, which included: an assessment of expenses for decommissioning the nuclear fleet and storing the resulting radioactive waste; an explanation of the methods used to calculate provisions for these expenses; and a discussion of the composition of the dedicated assets.

A decree passed on February 23, 2007, and an order passed on March 21, 2007, clarified the program for securing the financing of nuclear expenses by defining a nomenclature for nuclear-related expenses, and set apart those resulting from the operating cycle. The decree and order outlined how the expenses should be estimated, and the discount rate that should be used to calculate the corresponding provisions. They also specified rules for investing in and managing dedicated assets, the roles of corporate bodies and management, and the control systems that nuclear plant operators should put in place.

EDF must provide assets to cover the following commitments:

- decommissioning of the operating PWR plants and non-operating plants (€ 9.9 billion as of December 31, 2007);
- removal and permanent waste storage (€5.9 billion as of December 31, 2007 (see note 31.3 to the consolidated financial statements for the year ended December 31, 2007). Pursuant to the order of March 21, 2007, this amount also covers the long-term management of non-recyclable fuel from plants (Creys-Malville equipment and MOX) that was only partially included in the scope set by the Board of Directors on September 5, 2005, as well as the waste from the dismantling of nuclear plants that was not included in the decommissioning estimate (in accordance with the legislator's request); and
- the management of burnt fuel and storage of waste connected with the non-consumed part of the plants' last core (€0.4 billion as of December 31, 2007).

Some provisions have been excluded from the scope of dedicated assets because they correspond to expenses considered to be directly related to the operating cycle (according to the order of March 21, 2007). This includes mainly the provision for management of burnt fuel, which is subject to yearly allocations and reversals and may be classified as part of the operating cycle, like other such items (e.g., fuel inventory).

EDF has not included its share in the decommissioning of third-party facilities in the scope of dedicated assets, because these expenses must be accounted for by facility operators. This is the case for EDF's share of the decommissioning of the facilities in The Hague, where Areva and EDF agreed that a one-time payment should be made to fund the supplier. The same holds true for the provision for the share of decommissioning Phénix.

Finally, the share of the provision for the last core for an amount of €1.3 billion as of December 31, 2007, which corresponds to the unused fuel that was in the reactor when it was shut-down permanently has already been funded, and is therefore not included in the scope of these commitments.

The allocation to EDF's dedicated assets for 2007 was €2.4 billion (see note 33.4 to the consolidated financial statements for the year ended December 31, 2007). On September 5, 2005, the Board of Directors of EDF had decided to allocate €2.35 billion (2005 euros) for each year from 2007 to 2010. However, this schedule will be adjusted in the next 3 years to account for an increase of the assets to be covered of €0.9 billion (spread over the 2008-2010 period) resulting from the new perimeter defined by Law dated June 28, 2006.

#### **6.2.1.1.4 HYDROPOWER GENERATION**

Electricity generated by EDF from its hydropower plants represented 8% of its total electricity production in 2007.

**6.2.1.1.4.1 EDF's FLEET OF HYDROPOWER GENERATION FACILITIES** EDF's fleet of hydropower facilities in mainland France comprises 447 power plants.

- Approximately 10% of the power plants have a unitary capacity that exceeds 100 MW; they represent approximately 50% of total output;
- Approximately 50% of the power plants have a unitary capacity that is below 12 MW; they represent approximately 10% of total output.

The fleet's average age is approximately 50 years and 25% of the installations are over 75 years.

The power plants are mainly located in mountainous areas in the



Pyrénées, the Alps, the Massif Central and the Jura, as well as on the Rhine. In total, they represent an installed capacity of approximately 20 GW (excluding overseas departments and Corsica), or 20% of EDF's fleet, for annual generation capability (*i.e.* maximum) energy of approximately 46 TWh, which makes France the leading generator of renewable electricity in the European Union.

The various hydropower infrastructures were designed to optimize the uses of water resources in the valleys. As a result of the size and variety of its fleet, EDF has systems that are capable of responding to all types of demand, whether base load or peak, and that offer optimization leverages through their flexibility of use:

- "Run-of-river" facilities like those on the Rhine do not have storage capabilities and produce energy depending on the supply of water available at any given time. They represent a total capacity of 3,700 MW and a generation capability of 17.6 TWh;
- EDF has one tidal power plant on the Rance: it uses the rising and falling movement of the tide to create the vertical drop that is essential to the generation of energy, and which produces electricity in a very reliable manner. This station has a total capacity of 240 MW and a generation capability of 540 GWh;
- Pondage power stations are associated with small reservoirs along a river, and are used according to a schedule during the week or during the day, to cover peaks in demand. They have a total capacity of 3,300 MW and a generation capability of 10.6 TWh.
- The pumped storage power plants comprise an upstream reservoir and a downstream reservoir. During periods of low demand, water is pumped up from the downstream reservoir to create a water storage, which will be used to generate electricity during peak load periods (the water is then "turbined" from the upstream reservoir to the downstream reservoir). They represent a total capacity of 4,200 MW, which over the past few years have enabled the pumping of more than 7 TWh and the turbining of approximately 6 TWh, as well as output of 1.2 TWh, by means of natural water supplies in the upstream reservoir of certain pumped storage power plants.
- The "reservoir" facilities located in the mountainous regions (Alps, Massif Central and Pyrénées) represent a total capacity of 8,800 MW and a generation capability of 16.5 TWh. They are used for their large storage capacity from season to season. Depending on demand, they can also take advantage of favorable periods to fill their reservoirs in order to be available during periods of high consumption or in order to ensure balance in the electrical system. In order to ensure the balance and optimization of its upstream/downstream asset portfolio in France, EDF, through their storage capacity, therefore holds an optional share in over thirty significant "reservoir" installations.

### 6.2.1.1.4.2 Hydropower safety

Hydropower safety includes all the measures taken at the time of the design and management of hydroelectric schedules and its purpose is to manage risks that the presence or operation of hydropower facilities may create for people, property and the environment (see Section 4.1.2.2 ("Management of hydropower safety risk")). It involves three main activities:

- the management of variations in levels or flows on the downstream of sites:
- operations during flood periods, in order to ensure safety with respect to facilities and inhabitants; and
- the prevention of a major risk, such as the rupture of an hydropower site, by means of monitoring and maintenance of existing structures under the control of public authorities, namely the Regional Divisions for Industry, Research and the Environment (Directions Régionales de l'Industrie, de

la Recherche et de l'Environnement, or DRIRE). Among the most important dams, 68 are being subject to a specific supervision procedure (Plan Particulier d'Intervention) implemented by the relevant prefect.

EDF carries out regular monitoring and maintenance of its dams, namely by their constant testing. Real-time analysis and reports for each site of several parameters (settlement, pressure and outflow measures monitoring, associated with a visual inspection of concrete or the control of the mechanical parties) allow EDF to prepare on a constant basis reports on the condition of its dams. In Grenoble and Toulouse, EDF's teams can analyze at distance the most important or the least attainable dams, thanks to a series of sensors.

Finally, a complete check-up of each of the 150 most important dams is carried out every ten years, as well as a drain down or a structure inspection through sub-aquatic equipment. These monitoring operations are carried out under the control of State's services (DRIRE and the STEEG — Electric Power and Important Dams Technical Service (Service Technique de l'Energie Electrique et des Grands Barrages), both reporting to the Economy, Finance and Industry ministry). In 2007, EDF carried out 12 of these 10-year visits at its sites.

Hydropower safety is an absolute priority for hydropower generation, and has been the catalyst for the substantial development in operating practices and policies adopted over the last few years. It is a determining factor in influencing decisions relating to the maintenance of EDF's assets.

#### 6.2.1.1.4.3 Performance of the fleet of generation facilities

### **Highly-automated facilities**

In order to take advantage of the flexibility of its hydropower generation facilities, for some years now, EDF has been initiating ambitious programs involving automation, remote control of hydropower plants and centralized management of the valleys.

EDF's 100 largest hydropower plants, representing more than 75% of the installed hydropower capacity, are remote-controlled from four control centers able to mobilize 14,000 MW in less than 20 minutes.

#### The fleet's technical performance

2007 was another globally dry year (hydraulicity lower than normal) with a production of electricity from hydropower sources (not taking into account a deduction of the 7.7 TWh of electricity consumption necessary for the functioning of the pumped storage power plants) of 41.2 TWh. Hydropower generation varies from year to year depending on fluctuations in water resources.

The overall availability of the hydropower fleet, *i.e.*, the percentage of time over the year during which the power plant is available at full power, was approximately 92% on average, over the last few years. The residual unavailability of EDF's hydropower fleet (approximately 8%) is due to facility maintenance (5% to 6%) and unplanned unavailability due to the extension of maintenance projects and defaults (2% to 3%).

The demand response rate, *i.e.*, the rate of success in responding to startup or shutdown orders received by the power plants, has been over 99% for several years as a result of growing demand for hydropower generation sites. For example, facilities built to be able to respond to 5 startup-shutdown sequences are often solicited over five times a day.

Continuing the procedure initiated in 2005 for identifying risks of faults by kind of material and in a context marked by some instances of default leading to the medium-term unavailability of installations (Tuilières dam in

Dordogne, etc.), EDF decided, in 2006, to implement a program to upgrade the technical standard and reinforce maintenance of works for a global amount of €560 million over the 2007-2011 period in order to renovate certain installations, to maintain a lasting high level of hydropower safety, and to preserve the long-term technical performances of its fleet.

This 5-year renovation program for hydropower facilities, called Hydropower Safety and Performance (SuperHydro), will entail longer outages than those recorded in recent years while the work is under way. The program was started in 2007 and is proceeding as planned. The priority is to restart facilities that are currently shutdown (Tuilières and Pragnères) and improve the fleet's performance. The work completed in 2007 has not affected the fleet's demand response rate.

After the SuperHydro program is complete, EDF intends to maintain an availability rate of 92%.

6.2.1.1.4.4 CURRENT AND FUTURE HYDROPOWER GENERATION ISSUES The hydropower fleet faces the following issues:

#### **Concessions renewal**

Hydropower generation facilities are operated through:

- concessions granted by the French Prime Minister for facilities exceeding 100 MW, or by the prefect, for facilities whose capacity is between 4.5 MW and 100 MW; and
- permits granted by the prefecture for facilities of less than 4.5 MW.

EDF holds the majority of the hydroelectric concessions in France.

The concessions had an initial term of 75 years, pursuant to the French Law of October 16, 1919, with respect to hydropower, and are in general renewed for terms of 30 to 40 years. The renewal of these concessions provides an opportunity to update the specifications in response to new requirements for water resource management and the most recent specifications set forth in the appendix to decree 99-872 dated October 11, 1999.

Because of its status as a French *Société Anonyme*, and pursuant to the Sapin law (1993) (see Section 6.5.4.3 ("Regulations applicable to other generation methods used by the EDF Group")), EDF is now subject to open competition for the renewal of its hydropower concessions. EDF believes that this new regulatory framework should not have significant consequences in the short- or medium-term. Only 11% of the company's total installed hydropower capacity in France (slightly over 5% of EDF's total hydraulic generation) is covered by concession contracts that will expire before 2015. An additional 2.5% of EDF's total hydraulic power in France will expire by 2020. The renewal process is already underway for some of these contracts.

Under current regulations, if a concession is not renewed, the former concession holder does not receive any compensation. Upon expiry of the concession, all of the facilities belonging to the French State (installations from the dam to the turbine) must be in good condition. The amended finance act for 2006 provides for the reimbursement of unamortized expenses related to modernization works or works allowing for the expansion of generation capacity. The amended finance act for 2006 also provides for, concerning hydropower concessions, at the time of the renewal, the establishment of annual payments limited to 25% of the revenue of the electricity sale originating from the operation of granted hydropower generation facilities, paid to the State and partly assigned to

departments. The decrees of the implementation of such 2006 amended finance act are currently being written.

In 2007, EDF did not obtain the renewal of a 12 MW nominal power concession concerning three plants on the Séveraisse River in the Alps.

EDF will seek to obtain the renewal of the concessions which constitute a stake for the balance of its fleet of generation facilities.

#### Managing access to water

The 220 dams operated by EDF in France enable the storage of 7.5 billion cubic meter of water, i.e., 75% of national surface storage reserves.

The hydropower installations have positive effects on both economic development and the environment. EDF has a proactive management policy in relation to its hydropower resource, which it enforces in cooperation with various stakeholders. EDF has entered into agreements with local elected officials, farmers, fishermen, managers of tourist sites and manufacturers.

EDF gives preference to consultation with local users. This process aims first at measuring the real effects of hydropower operations on the environment and on other uses, before attempting to minimize these effects when technically possible and financially reasonable.

As a result, 700 million cubic meter of water are released each year from the dams for use other than the generation of electricity (supplies of drinking water, to supplement periods of low flow, irrigation, production of artificial snow, water sports, etc.).

The law on water and aquatic environments of December 30, 2006, contains provisions relating to the management of water resources (in particular, the value of reserved flows<sup>14</sup> and the flexibility of hydropower plant operations). EDF estimates that these new ratified provisions will have medium-term consequences for its hydropower activities (see Section 6.5, ("Legislative and regulatory environment")).

#### Development

95% of France's hydropower capacity is currently being operated.

The development of EDF's hydropower activities is currently based on the Gavet power plant's fitting-out. This involves replacing six hydropower plants at the end of their life cycle installed on the Romanche, with a single plant, the Gavet power plant, with a capacity of approximately 90 MW and output of approximately 540 GWh.

Projects are under way or under study in the following areas:

- generation from reserved flows. The purpose is to equip a certain number of dams in order to process the reserve flow through the turbines and recover a portion of the associated energy. EDF completed one project in 2007 and plans to continue at a rate of approximately five projects per year;
- development of small hydropower plants (with less than 12 MW capacity). For example, Shema, a fully-owned EDF subsidiary, is studying five projects related to new facilities which should be built by 2010, representing a total capacity of 14 MW.

In addition, EDF aims to explore all available opportunities for expansion, including:

• technical and financial studies for pumped storage plants in France;

<sup>&</sup>lt;sup>14</sup> Minimum flow maintained downstream of dams to preserve aquatic life.



- a feasibility study for an additional 30 MW unit at the Gambsheim hydropower plant on the Rhine;
- a study of the possibilities for extra capacity building (e.g., increasing the power of existing hydropower plants) also permitted by the French Law 2005-781 passed on July 13, 2005, which outlines energy policy guidelines (called the LPOPE; see Section 6.5.2.2. ("French Legislation")), so as to help develop state-of-the-art processes; and
- upgrading existing facilities (modernization, more efficient generation, etc.) within the frame of concession renewals.

#### 6.2.1.1.5 FOSSIL-FIRED GENERATION (THF)

EDF's electricity production from its fossil-fired power plants in continental France represented approximately 4% of its total electricity production in 2007. This fleet, the average age of which is approximately 30 years, has in 2007 a total installed functioning capacity of 10,187 MW for a total installed capacity of 13,032 MW. Fossil-fired generation means have a certain number of advantages:

- a high degree of reactivity and flexibility (quick start-up and power modulation):
- the ability to be shutdown for extended periods (stand-by), or by contrast to be brought back into operation within short periods of time; and
- investment costs which are lower than for nuclear or hydropower facilities, and short construction periods.

In addition, the more modern fossil-fired power plants offer a better control of different sorts of emissions (carbon dioxide, sulfur dioxide, nitrogen oxide and dust).

Fossil-fired generation means are one of the essential components of the energy mix to ensure the balance of production-consumption in real time and to accommodate the variations in electricity consumption. Together with some hydropower facilities (lakes, pumped storage plants), the fossil fired generation means are used to cover mid-merit and peak demand electricity requirements.

For this reason, they play an important role in adjusting EDF's generation capacities in response to the changes of its customers' requirements.

The performance of these types of plants is nevertheless sensitive to various factors that can lead to higher generation costs:

- the tightening of environmental protection regulations (pollutant emissions, air quality);
- compliance with greenhouse gas emission quotas; and
- increases in the cost of fuel (namely hydrocarbons).

### 6.2.1.1.5.1 EDF'S FLEET OF FOSSIL-FIRED GENERATION FACILITIES

#### Breakdown of the facilities

As of December 31, 2007, the fossil-fired generation facilities operated by EDF are of different types, both in terms of fuel and power:

- Coal-fired units
  - 9 units with a capacity of 250 MW, commissioned between 1965 and 1971 (Blénod 2, 3 and 4, Bouchain 1, Le Havre 1, La Maxe 1 and 2 and Vitry 3 and 4); and
  - 4 units with a capacity of 600 MW: Le Havre 2, commissioned in 1969, and three more recent units (Q600) commissioned between 1983 and 1984 (Cordemais 4 and 5, Le Havre 4).
- Oil-fired units
  - 3 units with a capacity of 250 MW, commissioned between 1971 and 1973 (Martigues 1, 2 and 3);

- 3 units with a capacity of 600 MW, commissioned between 1973 and 1975 (Porcheville2, 3 and 4); and
- 3 units with a capacity of 700 MW, commissioned in 1976 and 1977 (Cordemais 3, which was restarted in 2007, Cordemais 2, and Aramon 2).
- Iron and steel gas units (blast-furnace gas): two units commissioned in 1959 and 1961 (Richemont 3 and 5).
- Combustion Turbines (CTs): eight units on four sites (Arrighi, Brennilis, Dirinon, and Gennevilliers) commissioned since 1980 (including a unit at Arrighi started in 2007, with an installed capacity of 130 MW), which constitute resources for extreme peak periods and which are extremely responsive.

The installed capacity of the operating fleet is 10,187 MW.

In 2008, EDF plans to restart two oil-fired units on stand-by (Aramon 1 and Porcheville 1), which have a combined capacity of 1,270 MW. Four units with a total capacity of 1,575 MW remain mothballed. Therefore the total installed capacity is 13,032 MW.

#### Fossil fuel supplies

Fuel supplies are managed by EDF Trading, an EDF subsidiary responsible for fossil-fuel trading. Fuel consumption is determined for EDF's fossil-fired generation facilities on the basis of expected demand, and EDF places its orders to EDF Trading for delivery two months in advance for coal and one month in advance for oil (see Section 6.2.1.3.3 ("EDF Trading")).

EDF has the opportunity to adjust its requirements and inventories by asking EDF Trading to make additional purchases or, under exceptional circumstances, to sell quantities that are considered surplus. In addition, for security reasons relating to supplying the power plants, EDF Trading has been asked to maintain a security inventory on behalf of EDF divided among various harbors.

## 6.2.1.1.5.2 CHALLENGES RELATING TO GENERATION BY FOSSIL-FIRED FACILITIES

#### The renovation and strengthening of current facilities

In 2003, EDF decided to progressively shut down its 250 MW oil and coalfired units, which had become obsolete due to environmental constraints and the development of the electricity market. The relevant installed power amounted to over 1,700 MW. This process ended in 2006 with the shutdown of the Albi power plant.

## Renovation of the most recent coal-fired production means to meet mid-merit load capacity demand

For mid-merit load capacity, maintaining the most recent (*i.e.* most efficient) coal-fired units is the best solution to ensure availability of competitive capacities. EDF has therefore implemented in the last couple of years a program running until 2009 for the renovation and ensured reliability of its most recent 250 MW and 600 MW coal-fired power stations.

The most recent 600 MW coal-fired units benefit from the lowest fuel generation costs of all of the fossil-fired generation facilities (better efficiency, seaside units, large capacity sites). Their power, along with the flexibility of their generation, are essential advantages. They are already equipped with a gas flow desulfuration system (90% reduction in sulfur dioxide emissions) and are currently adding an advanced denitrification facility which, by mid-2008, will enable them to comply with environmental regulations becoming effective in 2008 and expected beyond 2015, almost ten years early (see Section 6.4.3.2.2.1).

## Strengthening the fleet to meet peak demand, and preparing for the future of fossil-fired generation

In order to meet the increase in peak demand over the coming years, EDF has implemented a program to increase its peak capacity.

In 2005, EDF decided to put back into operation four 600-700 MW oil-fired units that had been mothballed (Porcheville 1-2 for the winters of 2006-2007 and 2008-2009, Cordemais 3 for the winter of 2007-2008, and Aramon 1 for the winter of 2008-2009), which have a combined capacity of 2,540 MW.

In spite of high variable costs, oil remains competitive for peak and emergency periods (i.e., under 1,500 hours per year). Finally, in the period until 2015, the applicable regulations should allow EDF to take into account the emissions for the entire fleet, and, thereby, to benefit from efforts made in relation to the 600 MW coal-fired units.

The Porcheville 2 and Cordemais 3 units were started again in December 2006 and October 2007, respectively, following 18 months of extensive modernization work. They now use very low-sulfur fuel (TTBTS fuel, with 0.55% sulfur), like the other oil-fired units, which improves their environmental performance. The combined capacity of these two units is 1,270 MW.

In 2005, EDF decided to put 500 MW of extreme peak capacity (several hundreds of hours of operation per year) into operation by activating three combustion turbines, the first (130 MW) for the winter of 2007-2008 and the other two for the winter of 2008-2009, at the Arrighi and Vaires-sur-Marne sites.

Out of the total 3,040 MW of peak load capacity expansion that had been decided in 2005 (2,540 MW from restarting mothballed facilities and 500 MW from new combustion turbines), 1,400 MW are already in service. The remaining 1,640 MW should go into operation by mid-2009.

In 2007, EDF decided to also carry out the following capacity expansion projects, in order to further increase its peak load capacity after 2010:

- install three additional combustion turbines with a combined capacity of 555 MW at Vaires-sur-Marnes and Montereau (one for start-up in winter 2009-2010, the others for winter 2010-2011); these turbines will be designed so that they can run on either natural gas or light fuel oil: and
- convert three oil-fired units of 250 MW each at the Martigues site into two combined-cycle gas turbines of 465 MW each, and build a 440 MW combined-cycle gas turbine at the Blénod site; these modernization projects will cut CO<sub>2</sub> and nitrogen oxide emissions and eliminate sulfur emissions.

Therefore EDF plans to increase its mid-merit and peak load capacity by a total of 4,215 MW after 2005. 1,400 MW of this is already in service, 1,640 MW will be started-up by mid-2009, and 1,175 MW will be started-up after 2009. For after 2010, EDF is also looking into building new combustion turbines for peak load and new capacity for mid-merit load (combined-cycle gas turbines and coal-fired plants using state-of-the-art technology) in order to meet potential increases in mid-merit and peak demand. For these developments, the EDF Group's main advantages are that it owns the sites on which the fossil-fired power plants are located, and its industrial skills as an operator and a developer, acquired through international operations. Over the last few years, EDF has in fact been carrying out Independent Power Plant (IPP) projects abroad (mainly in China and in Mexico – see Sections 6.3.3.1 ("The EDF Group's activity in China") and 6.3.2.3 ("Mexico")). This strategy has enabled EDF to acqui-

re the skills required for managing the design, development and operation of combined-cycle gas turbines.

#### Evolution of the environmental regulatory framework

Fossil-fired power plants are operated within the context of regulations that apply to installations classified for environmental protection purposes, as well as regulations relating to greenhouse gas emissions (see Section 6.5.4.4 ("Other regulations relating to the environment, nuclear facilities, health, hygiene and safety") for a description of these regulations) and a specific regulation regarding air quality.

The regulations relating to greenhouse gas emissions led to the establishment, in 2005, of the national  $\mathrm{CO}_2$  quota allocation plan. During the first period (2005-2007), these quotas were sufficient to operate its fossil-fired generation facilities. For the 2008-2012 period, the quota allocations for the French electric sector have decreased by 25%. For an average year operation of fossil-fired facilities, this quota allocation would correspond to a procurement need of about 2 millions of tons per year.

The adaptation of its fossil-fired generation facilities, undertaken by EDF, is a result of the obligations imposed by regulations on air quality and reduction of airborne pollutants emissions, the principles of which are applicable until 2015. However, it cannot be excluded that the former regulations may be tightened prior to 2015 and future developments are an important challenge for EDF, in particular, with regards to the operation of its oil units beyond this date.

Owing to the shutdown of the oldest fossil-fired power plants, the renovation of the most recent plants, the set up of pollution-reducing procedures and the use of fuel with a low sulfur content, EDF considers that emissions of atmospheric pollutants from its fossil-fired fleet in mainland France could be reduced, with equivalent generation, by 30% to 40% by 2010 (see Section 6.5 ("Legislative and regulatory environment")).

#### Generation and technical performance

Fossil-fired generation increased by more than 7% in 2007, compared to 2006, to 18.2 TWh, primarily because of a reduced availability of nuclear generation means, together with a lower-than-average hydraulicity. Fossil-fired generation makes up 4% of EDF's annual generation in mainland France, and covers 13% of adjustment services.

The fossil-fired fleet's reliability held stable over the year, with an availability coefficient of 71.7% – the same as in 2006. This is considerably better than the 64% coefficient in 2004 thanks to fewer unplanned outages (accidents and prolonged shutdowns); these fell from nearly 21% in 2004 to 13.4% in 2006 and 11.96% in 2007.

Minimizing unplanned outages is the essential aim for generation means such as fossil-fired facilities, operating at mid-merit and peak. The goal for these generation methods, that are called upon throughout the year on a variable basis (EDF's fossil-fired power plants operate annually between 1,500 and 6,000 hours for coal, 200 and 1,500 for oil, and several hundreds of hours for combustion turbines) is to ensure the system's security through maximum levels of reliability and availability.

### **Industrial partnerships**

On November 30, 2007, EDF and Enel signed a Memorandum of Understanding (MOU) in order to extend their partnership in nuclear power to other generation methods. Under the terms of the MOU, Enel will help finance the erection of the three new combined-cycle gas turbines by paying an amount equal to 30%-40% (two at Martigues and one at Blénod) and the operating expenses, and in return will be able to



use some of the generated electricity. Enel must also allow EDF to take part in Enel's projects to build gas-, coal-, and brown coal-fired plants in Europe and other Mediterranean countries.

#### **Decommissioning existing facilities**

EDF has planned all of the decommissioning operations for its existing fossil-fired generation facilities. The provisions for these operations have been made in an amount that corresponds to the cost of decommissioning all of the units being operated and the cleanup of the sites (see note 31.4 to the consolidated financial statements for the year ended December 31, 2007). However there is still a residual risk associated with increased cleanup requirements (development of applicable regulations, change in future use of the site requiring an additional cleanup process).

EDF continued throughout 2007 the decommissioning work started in 2006 on sites definitively shut down.

#### **6.2.1.2 SALES AND MARKETING**

EDF's sales and marketing activities in France are managed by the EDF Customers Division, which markets EDF's energy and services to more than 27.2 million customers (excluding overseas departments and Corsica), representing nearly 33 million of sites (delivery points).

As of December 31, 2007, EDF's Sales and Marketing division totaled 12,337 statutory employees.

## 6.2.1.2.1 OPENING OF THE FRENCH MARKET FOR ELECTRICITY SALES AND MARKETING

Domestic consumption in France during the 2007 financial year totaled 480.3 TWh<sup>15</sup>, an increase of 0.4% compared with the 2006 financial

year. This slight increase in consumption is due to higher average temperature in 2007 in comparison to 2006, partially offset by an increase in consumption by large customers in the energy sector. Excluding these two factors, electricity consumption in 2007 rose by 1.6% in comparison with 2006.

In order to provide supplies for the open market, suppliers that are competing with the EDF Group have access to:

- their own generation capacities;
- almost 40 TWh made available in 2007 by the EDF Group through "Capacity Auctions" ("VPP") described in Section 6.2.1.3.4 ("Capacity auctions");
- imports;
- the wholesale electricity market.

Furthermore, the decision of the *Conseil de la Concurrence* on December 10, 2007, accepted and rendered mandatory the commitments proposed by EDF on making available to alternative energy suppliers a substantial volume of electricity (see Section 6.2.1.3.6 below).

In 2007, EDF's electrictity market share of eligible end customers (by volumes sold) was 85.2% <sup>16</sup>, against 85.3% <sup>17</sup> in 2006.

In 2007, EDF's gas market share of eligible end customers (by volumes sold) was approximately 3,5% <sup>18</sup>, against approximately 2% in 2006.

The opening of the French market for sales and marketing occurred in the following stages:

Date	Eligibility Threshold	% of Total Opening in Terms of Consumption (by volume)	Total Sites/Eligible Customers
February 1999	100 GWh/year	20%	200 sites
May 2000	16 GWh/year	30%	1,600 sites
February 2003	7 GWh/year	37%	3,200 sites and 99 LDCs*
July 2004	All non-household customers	69%	2.2 million customers
July 2007	All customers	100%	27 million customers

<sup>\*</sup> Local distribution companies.

EDF's main competitors on the French market are the Electrabel/Suez Group, ENDESA/SNET, Atel, HEW Energies, Gaz de France, Poweo, Direct Energie and local distribution companies. The energy landscape is undergoing a total restructuring. The trend is to graft sales and marketing entities onto groups with generation capacities. The landscape of the energy market may soon change with the possible emergence of a first-rate competitor to EDF if the Suez/GDF merger is completed.

#### 6.2.1.2.2 PRICES AND TARIFFS

In the context of the opening energy market, the following distinctions must be made with respect to sales of electricity in France:

- between the tariff structures that may be applied by the historical operator to customers that have not exercised their right of eligibility:
- for customers having exercised their right of eligibility, a choice between prices proposed by different retailers and, pursuant to the Law of December 7, 2006, the transitory regulated tariff for market adjustment, which is fully applicable to them for a maximum duration of two years subject to their having made a written request to their supplier before July 1, 2007 (see Sections 6.2.1.2.2.2 ("Electricity prices for customers having exercised their right of eligibility") and 6.5.1.2 ("French legislation")).

<sup>&</sup>lt;sup>16</sup> Excluding DOM and Corsica; excluding network losses; including EDF own consumption.

 $<sup>^{\</sup>rm 17}$  Excluding DOM and Corsica; excluding network losses; including EDF own consumption.

<sup>&</sup>lt;sup>18</sup> Source market France: data published by the DGEMP

<sup>&</sup>lt;sup>15</sup> Source: RTE-EDF Transport 2007 provisional balance sheet, including Corsica.

Entitlement to the tariff was modified by the Law of January 21, 2008, on regulated tariffs for electricity and natural gas. The situation is now as follows, per category of customer:

• residential customers:

- who exercise their right of eligibility are again entitled to benefit from regulated tariffs (for the same residence) 6 months after such exercise, provided they submit the request before July 1, 2010 (electricity only);
- who move are entitled to benefit from regulated tariffs, including when the previous occupants of the residence exercise their right of eligibility, provided they submit the request before July 1, 2010 (electricity and gas);
- who move into a new residence are entitled to benefit from regulated tariffs, provided the residence is connected to the distribution network before July 1, 2010 (electricity and gas).
- Non residential customers signing up for a power supply equal to or less than 36 kVA:
- who exercise their right of eligibility for a site cannot revert to the regulated tariffs for this same site (electricity and gas);
- who move are entitled to benefit from regulated tariffs, including when the previous occupants of the site have exercised their right of eligibility, provided they submit the request before July 1, 2010 (electricity only);
- who move to a new site are entitled to benefit from regulated tariffs provided the site is connected to the distribution network before July 1, 2010 (electricity only).
- Non residential customers signing up for a power supply of more than
  - are not entitled to benefit from regulated tariffs except for consumption at a site where eligibility has never been claimed (neither by them nor by a previous occupant) (electricity and gas);
  - who move into a new site are entitled to benefit from regulated tariffs provided the site is connected to the distribution or transmission network before July 1, 2010 (electricity only).

On June 13, 2007, the European Commission instigated a formal investigation vis-à-vis the French State regarding presumed subsidies in French regulated electricity tariffs. The "Green" and "Yellow" tariffs applicable to large and medium sized enterprises which have not exercised their rights of eligibility are targeted:

- the Yellow and Green "standard" tariffs which are low compared with market prices allegedly confer a benefit on various large and medium sized enterprises. The resultant subsidy could be called into question as from July 1, 2004;
- the Yellow and Green transitory tariffs (TarTAM) are also alleged to have constituted a subsidy since their application.

The European Commission is also investigating the issue of the compatibility of the TarTAM with legislation on government subsidies and more specifically, the system for compensation of third party suppliers.

## 6.2.1.2.2.1 THE TARIFF STRUCTURE

The tariff structure includes a range of regulated tariffs applicable to electricity sales. It applies to customers that have not exercised their right of eligibility.

The tariff structure is determined by decree rendered upon review by the French Conseil d'Etat, after consultation with the Energy Regulation Commission (*Commission de Régulation de l'Énergie* or *CRE*) and the Competition Council (*Conseil de la concurrence*). Changes in the tariffs, with no changes to the structure, are determined by the Minister of the

Economy, Finance and Industry and the Minister of Energy, after consultation with the  $\ensuremath{\mathsf{CRE}}.$ 

These regulated tariffs include a fee for making the capacity available and a variable portion that is proportional to consumption, with prices that may be adjusted depending on the time of day or the season. The range of tariffs has been designed to take into account changes in customers' consumption with various options (in particular peak hours/off-peak hours for residential customers).

In addition, within the context of its mandate as an operator with public service commitments, EDF has been offering a basic necessity tariff since January 1, 2005 in accordance with French decree n° 2004-325 of April 8, 2004. Aprroximetaly 630,000 customers benefited from this as of December 31, 2007.

The tariff is a so-called "integrated" tariff because it covers all of the following elements:

- the "energy" portion based mainly on operating costs and long-term costs (investments in generation means, the back-end of the cycle, research and development);
- management costs for customer service and sales, which together with the "energy" portion and the "supply" portion of the tariff (approximately 60% of the bill, excluding taxes);
- the "network" portion including the cost of using the public transmission network operated by RTE-EDF Transport and the public distribution networks operated by distribution network operators, also called the "delivery" portion (approximately 40% of the bill, excluding taxes).

Customers benefiting from integrated tariffs receive a single electricity bill for supply and delivery, which indicates the network usage cost portion calculated on the basis of the Tariff for Using the Public Electricity Transmission and Distribution Networks (Tarif d'Utilisation des Réseaux Publics de transport et de distribution d'électricité, or "TURP"), established upon the proposal of the CRE (see Section 6.2.2.4 ("Tariffs for Using the Public Electricity Transmission and Distribution Networks (Tarif d'Utilisation des Réseaux Publics de transport et de distribution d'électricité, or "TURP")") below). In this way, the separation of the generation and sales and marketing activities in a competitive market, and transmission and distribution activities, which are a monopoly, is clearly shown.

The following taxes (representing more than 20% of the bill, including taxes) are added to the electricity bill:

- local municipal and departmental taxes, collected and transferred in their entirety by EDF to the local authorities;
- contribution to the public service charges for electricity (Contributions aux Charges de Service Public de l'Electricité, or "CSPE"), which was established by the French Law of January 3, 2003 (see Section 6.5.1.2 ("French legislation") below). The CSPE was set at €4.5 per MWh for 2008 with a ceiling of €500,000 per consumption site and per year; in addition the total amount due for this contribution from any industrial company consuming more than 7 GWh of electricity per annum is capped at 0.5% of its added value;
- VAT.

Furthermore, the CTA levy (*Contribution Tarifaire Acheminement*, or "CTA"), which contributes to covering a portion of fees for the pension system (see Section 17.8.1 "Special pension system") is added to the electricity bill. On a transitional basis while waiting for the CTA of regulated tariffs to be externalized, the CTA is calculated inside the integrated tariff



On August 16, 2007, regulated tariffs rose by 1.1% for Blue tariffs and by 1.5% for Yellow and Green tariffs. This increase applies to customers that, in the context of the opening up of the markets, have chosen to continue to be billed at the regulated tariffs. This increase is in accordance with the public service agreement (see Section 6.4.3.4 ("Public Service in France")) signed between EDF and the French State on October 24, 2005, which guarantees that the increase in electricity sale prices for individual customers will not exceed inflation during the first 5 years.

## 6.2.1.2.2.2 ELECTRICITY SALE PRICE TO CUSTOMERS HAVING EXERCISED THEIR RIGHT OF ELIGIBILITY

Since July 1, 2007, all customers in France are free to abandon the tariff schedule for an EDF offer or that of another supplier at any time, without notice.

With the exception of customers connected to the transmission network, who must sign different contracts for transmission and delivery, all other customers that have exercised their right of eligibility can enter into a single contract with the retailer of their choice for the transmission and delivery of their electricity. Their electricity bill will therefore consist of the following three components:

- the "electrical energy" supply price. The contract entered into with the retailer covers the billing price of activities that are open to competition, which is a market price that corresponds to the costs of supplying electricity, sales and marketing, customer care and the energy-related services associated with the supply;
- the Tariffs for Using the Public Electricity Transmission and Distribution Networks (*Tarif d'Utilisation des Réseaux Publics de transport et de distribution d'électricité*, or "TURP"); and
- public levies: the CSPE, CTA, local taxes and the VAT mentioned in Section 6.2.1.2.2.1 ("The tariff structure") above.

Article 15 of the Law n° 2006-1537 of December 7, 2006 relating to the energy sector provides for the creation of a transitory tariff for market adjustment (TarTAM) and its implementation for a period of 2 years for any customers having exercised its eligibility. Customers had until July 1, 2007, to send their written request for application of this tariff to their energy suppliers. More than 2,800 customer sites, representing total annual consumption estimated by CRE as 64 TWh (source: Observatoire des marchés de l'électricité et du gaz, Q3 2007) sent their requests to EDF's Customer Division.

The order of January 3, 2007 decided that the transitory regulated tariff for market adjustment before tax applicable to a consumer area should be equal to the regulated sales tariff before tax applicable to a consumer having the same characteristics, marked up as:

- 10% for final consumers connected to low voltage with a subscribed power lower or equal to 36 kVA;
- 20% for final consumers connected to low voltage with a subscribed power considerably higher than 36 kVA;
- 23% for final consumers connected to HTA and HTB voltage.

#### 6.2.1.2.2.3 CUSTOMERS DIVISION

In 2007, electricity sales for the Customers Division to its 27.2 million customers amounted to  $395.1~\text{TWh}^{19}$  (262.7 TWh to non residential customers and 132.4 TWh to residential customers).

Since the end of 2005, EDF offers natural gaz to all of its eligible custo-

mers. In 2007, the Customers Division supplied 17.9 TWh to 126,000 sites. At the end of 2007 the Customers Division supplied gas to approximately 120,000 customers including 60,000 residential ones.

#### A. Sales and marketing policy of EDF in France

The sales and marketing policy of EDF in France aims at maintaining high levels of satisfaction and strengthen relations with customers, fostering the loyalty of high-value customers in the face of declining electricity market shares, and by achieving increased sales and per customer margins. This policy is accomplished, for example, by supporting customers's projects, expanding eco-energy efficiency offers and expanding the range of gas offers.

#### Maintaining high levels of customer satisfaction

Customer satisfaction is at the heart of EDF's marketing policy. Studies, both qualitative and quantitative, are carried out on a regular basis in order to direct the activity. In 2007, satisfaction remained at a high level in the residential and local authority customer segments. The decline in customer satisfaction in 2006 continued in the SMEs segment, and in that of large companies. This can be explained in part by the changes caused by the separation of distribution and marketing activities, but also, by price changes in the energy market.

EDF's Customers Division deployed ambitious action plans for each segment to reverse current trends and strengthen the basis for customer satisfaction.

#### Development of eco-efficiency energy product offerings

By expanding its traditional role in promoting efficient use of electricity to its customers, the EDF Group integrated energy savings imperatives provided by the relevant regulation, in the context of the development of its marketing policy.

Thus, the Law of July 13, 2005 and associated decrees defining an program and focuses for energy policy, set up a scheme including an energy saving certificate characterized by a national objective of energy savings (a savings target of 54 TWh Cumulative Discounted (Cumdis) has been set for the period from July 1, 2006 to June 30, 2009) which binds energy suppliers to respect these commitments.

The order of October 17, 2007 fixed a savings target at 29,8 TWh cumdis, representing the amount of energy savings that EDF should accomplish for the period mid-2006 to mid-2009.

In order to take into account this energy savings target, in all of its markets EDF's offers include the promotion of efficient energy use and renewable energy.

From mid-September to the end of October 2007, EDF also organized in 7 towns in France a tour entitled "Taking control of our energy consumption". The objective was to propose solutions to the public on how to improve their energy consumption.

EDF has set itself the target of becoming the French leader in energy eco-efficiency to reduce energy consumption and  ${\rm CO}_2$  emissions by its customers. To achieve this ambition, EDF is developing a range of energy eco-efficiency services which may result in customer contact; these services range from a diagnostic of facilities to maintenance and operating services by installling and financing energy saving equipment that relies primarily on renewable energy sources. Deployment of this strategy is

<sup>&</sup>lt;sup>19</sup> Data excluding internal sales to foreign operators and notification of exchange of blocks including Eurodif processing (7.1 TWh).

based on the creation of a new organization structured around two new divisions:

- the Eco-efficient Energy Services Division to develop, integration of energy eco-efficiency services for all segments; and
- the Downstream Industrial Division with the objective of positioning EDF in the distributed power generation market through "packaged" offers. These offers incorporate sales of distributed power generation equipment (for example photovoltaic, heat pumps, wood fired heating) based on strong relationships with equipment manufacturers.

#### Ambitions for natural gas

EDF's target is a share of approximately 10% of the natural gas market (by volume sold to end customers) in 2010. EDF is particularly targeting high value customers through combined gas and electricity offers.

#### **B. Business Customers**

The Business Customers Division comprises more than 200,000 customers for electricity sales of 223.5 TWh<sup>20</sup> and 16.7 TWh<sup>21</sup> for natural gas in the 2007 financial year.

2007 was a crucial year for gaining a foothold in the energy eco-efficiency services market and thus satisfying the high expectations of customers. The range of offers was enhanced to guarantee EDF's commitment to an eco-efficient initiative for reducing the kWhs consumed and/or  ${\rm CO_2}$  emissions

The Business Customers Division has since 2005 deployed a major program for collecting Energy Saving Certificates. To support customers' efforts to achieve energy savings, the Division has deployed marketing initiatives using two additional channels: (i) the sales channel and (ii) partnerships seeking to motivate advisors (installers, architects and design offices, operators) to offer high performance energy equipment (lighting, motors, monitors, heat recuperation, etc).

In 2007, the Business Customers Division also initiated a project for simplifying its sales and marketing customer management processes, focusing on the challenge of increasing customer satisfaction and controlling

#### Specific aspects of Large Companies and Key Accounts

This customer segment comprises large companies the annual electricity bill of which exceeds €150,000 (excluding taxes) delivery included, as well as large groups, frequently operating on a European level and most commonly with a centralized purchase structure. Business relations with these customers are highly personalized.

The EDF Group set up multi-country energy solutions within its coordinated marketing network which covers 11 countries (France, United Kingdom, Germany, Belgium, Spain, Italy, Austria, Slovakia, Hungary, Poland and Czech Republic).

Within the Key accounts segment, certain customers, share the special feature of being large-volume consumers of electricity, in other words customers the electricity costs of which represent a large part of their operating expenses. Several devices have been developed for these customers:

- Before the opening of the markets, EDF signed long-term contracts with certain customers, the terms of which do not correspond to those of the current electricity market since all generation and delivery costs are not covered by the contract prices. Provisions are made for these contracts in the company financial statements;
- On April 5, 2007, EDF and Exeltium (the consortium of large-volume consumers of electricity founded by 7 companies, including among others, Alcan, Arcelor-Mittal, Air Liquide, Rhodia and Solvay and which represents the interests of approximately 30 large-volume customers of electricity) entered into an industrial partnership agreement which details the terms and conditions of the memorandum of understanding that had been entered into on January 15, 2007, in accordance with the system created by the Finance Act dated as of December 31, 2005. This agreement allows Exeltium to benefit from a larger visibility over electricity supply prices in the long-term, in exchange of a sharing of risks related to the development and the operation of EDF's nuclear facilities. Volumes at stake amount to approximately 350 TWh over 24 years. This agreement puts an end to the negotiation period that started after the call for tenders initiated in May 2006 by Exeltium to electricity suppliers, for the supply of a maximum volume of 28 TWh year. The implementation of this agreement is subject to several conditions precedents, including the European Commission's positive opinion. The Exeltium agreement has been submitted to the European Commission in spring 2007. In June 2007, the European Commission whished the parties to amend the agreement in order to comply with the competition regulations. The amended agreement has been submitted to the European Commission in February 2008. The European Commission is currently reviewing the amended Exeltium agreement.

### Marketing proposals offered to Key Accounts

EDF has developed a range of services specially adapted to its largest customers:

- a wide range of innovative products so customers can select the degree of risk they wish to accept regarding energy market price changes;
- dedicated management services: grouping of bills, monitoring of consumption: and
- support on a European scale through Group subsidiaries. EDF is thus capable of offering customers a monthly report on all bills in the various countries where they have signed contracts with the EDF group.

### Products for large businesses and SMEs

Since 2005, EDF has offered its large customers and SMEs the supply of both electricity and natural gas. EDF also offers:

- a management service to assist with the day-to-day management of contracts and also to control energy consumption and costs (Adviso range of offers for active follow-up of energy expenditure Excelis range of offers in response to needs for increased power or adapting transformer stations);
- services that make customers' commitments to sustainable development
  a reality with its Equilibre range of offers (EDF undertakes to inject one
  kWh into the network from renewable sources and the customer has
  the option of contributing to financing initiatives for developing renewable energy) and its range of offers "Carbone Optimia" which permit
  customers to gain better access to the CO<sub>2</sub> quota and to manage and
  optimize their allowances, thus avoiding penalties;
- energy eco-efficiency services by taking over management of their projects to reduce energy expenditure and improve energy performance in their facilities (offer incorporating consultancy, project engineering, purchase of equipment, and its installation and optimization).

 $<sup>^{20}</sup>$  Excluding sales and the Blue tariff managed by the Non-Residential and Professional Division on behalf of customers in the Enterprises Division.

<sup>&</sup>lt;sup>21</sup> Including sales to local authorities and social housing providers.



#### IDCS

The "Local Distribution Companies" or "LDCs" sell and deliver electrical energy to end-users located in their exclusive area. They are responsible for 5% of the electricity distribution in France and sometimes generate electricity themselves. The French Decree of January 27, 2005 relating to the tariffs for the sale of electricity to non-nationalized distributors gives the LDCs the option of obtaining special tariffs from EDF for the portion of their electricity supply sold to customers that have not exercised their right of eligibility and for their network losses.

## C. Local authority and social housing provider customers

With external clarity and coherence in mind, a division dedicated to local authorities and social housing providers (DCT) was created in 2006. Under the same management, it regroups all commercial interlocutors from this segment of the market, representing more than 51,000 customers, local authorities and social housing providers (office public d'habitation à loyer modéré – public office for social housing or OPHLM).

In 2007, electricity sales by the DCT totaled 20.5 TWh.

The offers include:

- the supply of electricity and natural gas, including an *Equilibre* offer for electricity produced from renewable energy sources;
- management services;
- diagnostics (management of the energy demand, development of renewable energy);
- the "offre montant des charges" ("OMC") intended for social housing providers, aiming to improve the energy efficiency of social housing. It also enables EDF to fulfill its obligations concerning energy saving and collection of certificates;
- the supply of energy services, via subsidiaries, (share) holdings and partners of the Group;
- accompanying of local authorities in their development projects. These
  projects today all incorporate implementation of local renewable energy
  generation. There is particularly high demand for photovoltaic energy, to
  which the EDF Group has responded with its range of energy eco-efficiency service offers.

Awareness of the importance of energy issues by local authorities continued in 2007; some of them acquired skills in the energy domain and organized specific local initiatives for "Management of the Energy Demand" ("MED") and renewable energy. EDF partners these initiatives by signing energy-related agreements on energy eco-efficiency with local authorities. The agreements authorize, in addition, collection of energy saving certificates.

### D. Residential and Small Business Customers

The 26.9 million residential and small business customers are grouped in the Residential and Small Business Customers Division. For the 2007 financial year, the volume of sales by the Division totaled 151.1 TWh of electricity and 1.2 TWh of natural gas<sup>22</sup>.

## Offers to small business customers

EDF has extended its range of offers, which combine the supply of energy and services. EDF offers *EDF Pro*, electricity and gas solutions, the purpose of which is to simplify the lives of small business customers and a range of supplementary services with the offers *Assistance Dépannage*, *Climatisation* and payments solutions.

Moreover, if the customer's business premises or layout were to change, EDF provides advice, diagnostics and demand-side management packages and sends the customer special newsletters that may be useful when preparing technical specifications.

EDF also provides its small business customers with a *kWh Equilibre* offer, in which the electricity purchased is supplied wholly or partly from renewable energy sources.

EDF offers its natural gas offer since 2005. This offer meets the very high expectations of small business customers and serves to set EDF apart from its mono-energy competitors.

#### Offers to residential customers

This market comprises all residential customers and is characterized by a large number of customers and a relatively low average annual electricity bill.

The sales policy for residential customers has, in the past, been focused on promoting electrical heating. The policy now focuses on housing comfort, energy control and environmental protection. EDF prepared for the market opening up to competition in 2007 and developed packages, communications and the Residential and Small Business Customers Division business model.

EDF set itself three major objectives in relation to the opening up the energy market to residential customers on July 1, 2007:

- ensuring, for all residential customers, the option of choosing their electricity supplier by guaranteeing access to the distribution network by all suppliers under transparent and non-discriminatory conditions;
- guaranteeing the satisfaction of customers who wish to remain with EDF by providing the same quality of service as before, and making new offers;
- totally fulfilling its public service missions in the new competitive environment.

EDF considers it has successfully adapted to the opening of the residential electricity market. It has known to capitalize on the lessons learned from opening up of the business market and profit from the experience gained in Europe by its subsidiaries. Major transformations have been achieved:

- merging the sales and customer relations teams;
- training and increased professionalism of the sales force;
- reworking and adaptation of the process and the information systems;
- implementation of a new telephone structure;
- reorganization of the sales and marketing channels; and
- expansion of the internet canal.

EDF continues its efforts to adapt its customer procedures, in collaboration with its distribution subsidiary.

On September 22, 2007, EDF launched "Bleu Ciel d'EDF", its new brand for all residential customers, dedicated to the entire home. "Bleu Ciel d'EDF" is testimony to EDF's industrial and environmental choices to achieve a reduction in  $\mathrm{CO}_2$  emissions and combat climate change through its sales of energy and services.

For EDF, the opening up of the market on July 1, 2007 involved adapting the services to residential customers on the basis of two axes: the services

<sup>&</sup>lt;sup>22</sup> Including Blue tariff sales managed by the Residential and Small Business Customers Division on behalf of the Business Customers Division.

"related to supply" and the services "related to certain key moments" such as mobility and thermal energy comfort construction or improvement projects, including the maintenance of facilities.

The range of usage-related packages has therefore been extended and broadened (advice, financing packages) in order to fulfill customer expectations regarding comfort (for both newly built and renovated residences), the safety of interior installations, (*Diagnostic Confiance Sécurité*), insurance (*Assurélec*) and, project support (*Objectifs Travaux*).

Beginning on July 1 2007, EDF extended the offer of both a gas and an electricity agreement to its customers: "mon contrat gaz" and "mon contrat électricité". "mon contrat gaz", first launched in the Northwest region, was extended to the entire country in the autumn.

Since the end of November 2007, EDF has also made two eco-efficient energy offers to customers:

- "Equilibre Carbone" is an optional service offered to "Tarif Bleu" customers who, following a diagnostic analysis, can reduce consumption either by simple actions or by making home improvements. EDF has undertaken to pay 50% of the service price to benefit renewable energy development projects in emerging countries;
- "Conseil énergie solaire" is a free advisory service intended to give preliminary information on operation, procedures and financial assistance relating to installation of photovoltaic systems. Offers may be made by the EDF Group following the consultancy phase, based on three options:
  - "Energie Solaire Clé en Main", an "all inclusive" offer: equipment, installation, assistance with connection and the administrative procedures for bringing the system on line.
  - "Energie Solaire Production Garantie": all the advantages of the "Clé en main" solution plus management of the customer's photovoltaic system: preparing the annual electricity generation bill, declaration of revenue from such generation, a guarantee of the system with additional insurance indemnifying the customer in the case of non-generation on more than fourteen days a year.
- "Energie Solaire Financement Adapté": all the benefits of the "Production garantie" offer and a personalized finance plan (the income from generation allows the loan to be repaid and produces net income in the first year).

#### Commercial partnerships

During recent years, EDF has entered into a number of commercial partnerships in order to offer its residential customers a global service.

In the context of the partnership agreement concluded between EDF and Cetelem in 2003, a finance company, Domofinance, in which EDF has a 45% interest (as of December 31, 2007), was created for the purpose of broadening EDF's sales offer in the context of the electricity market opening up to competition. The purpose of Domofinance is to execute all credit transactions with the EDF residential customer base and to provide insurance products linked to this credit and insurance products relating to energy supply. On September 29, 2003, Domofinance was approved as a finance company by the CECEI (committee of credit institutions and investment companies), in accordance with Articles L. 511-9 to L. 511-14 of the French Monetary and Financial Code (*Code monétaire et financier*).

The loans provided by Domofinance are marketed and managed by a société en participation. Domofinance has a 52% stake and Cetelem has a 48% stake in the results of this company.

EDF has also entered into other specific partnerships, one with Cardif and the other with Crédit Foncier. The purpose of the partnership with Cardif was to create a group insurance agreement called the "Service Assurélec", which covers the payment of electricity bills in the event of the death or incapacity of the EDF customer taking out this insurance.

In addition, cooperation has been implemented with Axa Assistance and Europe Assistance for repair services. The marketing of this service has been available throughout France since February 2006 for business customers and since April 2007 for residential customers.

Finally, in September 2007 EDF and Toyota signed a technological partnership in Europe for assessing rechargeable hybrid vehicles, seeking to develop solutions for future sale of these vehicles, which are currently at the prototype stage.

Before the launch of the trademark "Bleu Ciel d'EDF", EDF aims, notably, to:

- Promote low energy consumption buildings solutions;
- Expand decentralized production of electricity without carbon;
- Promote works aiming to accommodations energy improvement.

To go with this launch, EDF has totally rethought its partnership model and gave up the *Vivrélec* label for 2008. In becoming partners in "*Bleu Ciel d'EDF*", the building and renovation actors may refer to the trademark EDF and benefit from its notoriety, its leadership and its legitimacy on the energy market. In compensation of its trademark "*Bleu Ciel d'EDF*" concession, EDF has decided to implemente an incentive based on flexible fees.

Through the "Bleu Ciel d'EDF" partnership network, customers making buildings and renovation works may access to more than 5,000 professionals who are on the whole territory and who represents all building trades. Those professionals are committed to respect the "Bleu Ciel d'EDF" technical system of references.

#### Social responsibility label

Since April 4, 2006, all EDF customer relation centers have earned a social responsibility label. This label identifies entities in the customer relations sector that comply with a code of good practice. The label is awarded for two years by a committee involving the public authorities, representatives of national trade union organizations, and the profession. In addition, EDF's three service providers were awarded the label in 2007.

### **6.2.1.3** UPSTREAM/DOWNSTREAM OPTIMIZATION – TRADING

## 6.2.1.3.1 ROLE AND ACTIVITIES OF DOAAT

The primary function of the Upstream/Downstream Optimization & Trading Division (*Direction Optimisation Amont/Aval & Trading*, or "DOAAT") is to ensure an equilibrium for electricity and gas between upstream resources and EDF downstream outlets in France, and to maximize the gross margin of the integrated upstream/downstream entity:

- upstream: fleet of generation facilities, long-term supply contracts, wholesale purchasing, purchase obligations from small decentralized generators; and
- downstream: long-term supply contracts, sales to end users, wholesale market sales, production capacity auctions (VPP), contractual interruptibility capacity.



Optimization consists of carrying out short and long term economic arbitrage between the various resources available to satisfy EDF's supply commitments to its customers, while controlling risks linked to uncertainties related to generation, consumption, market events, and their financial consequences.

DOAAT's objective is to secure and maximize the gross energies margin of the "generation-supply" entity by optimum use of upstream or downstream assets flexibility (management of hydropower stocks, interrupting consumption, timing shutdowns for power plant maintenance; etc.) and permanently seeking the best purchasing and sales opportunities on the wholesale markets.

The DOAAT deals with the supply in fossil-fired fuel, coal and oil, for the EDF's plants.

For the longer term, DOAAT is planning and proposing structural changes in the upstream and downstream asset portfolios, based on anticipated changes in the market and company strategy.

For transactions on the electricity wholesale markets, the DOAAT relies exclusively on EDF Trading, a wholly-owned EDF subsidiary. At the request of the DOAAT, EDF Trading performs the following for all commodities (electricity, gas, coal, oil,  ${\rm CO_2}$ , etc.): (i) arbitrage transactions that fall within the scope of the optimization strategies defined by the DOAAT and (ii) hedging transactions for EDF's commercial undertakings with a view to minimizing their physical and financial risks. EDF Trading also carries out its own trading activities within strictly defined limits.

Since September 2006, DOAAT has also ensured the balance of the upstream/downstream gas portfolio of EDF in France and Belgium for the following three years, as well as the associated transport and storage logistics from border delivery points, the Zeebrugge gas hub and Gas Exchange Points ("GEP") in France. It manages the exposure of the upstream/downstream gas portfolio to the risk of price increases and provides support for the organization of offers by EDF's marketers to its customers in France and Belgium.

The DOAAT aims to develop cooperation with the Group's other European companies. This is the objective of the professional optimization-trading division, which groups together the DOAAT, EDF Trading and the optimization-trading entities of EnBW (Germany), Edison (Italy), EDF Energy (the United Kingdom) and Everen (Poland).

In addition, the DOAAT manages EDF purchasing obligations (25 TWh in 2007) and several trading activities: the capacity auctions scheme (Virtual Power Plants, or "VPP") described in Section 6.2.1.3.4 ("Capacity auctions") (40 TWh in 2007) and long-term contracts with European energy providers described in Section 6.2.1.3.5 ("Purchase/sale contracts for long-term electricity") (55 TWh sold and 8 TWh purchased in 2007).

The DOAAT currently has approximately 800 employees, of whom a bit more than half work for EDF Trading.

## 6.2.1.3.2 UPSTREAM/DOWNSTREAM BALANCE OPTIMIZATION ACTIVITIES

The DOAAT is responsible for the management of physical risks to EDF's upstream/downstream electricity and gas portfolios and their financial consequences.

The DOAAT optimizes the energies generation-supply gross margin by using the available flexibility levers of the upstream, downstream and wholesale market portfolios, and proposing developments in value and

structure of these portfolios over different time periods:

## 6.2.1.3.2.1 OPTIMIZING THE ELECTRICITY UPSTREAM/DOWNSTREAM EQUILIBRIUM

**In the long term (5 years or more)**, the DOAAT will continue to contribute to the preparation of the generation investment program and, notably, the renewal of the fleet in parallel with the development of long-term downstream market opportunities.

In the medium term (3 to 5 years), the DOAAT's role is to continuously and coherently create an optimized view of the Generation-Supply portfolio and EDF's supply/demand balances, by determining the financial trajectories and the landscape of physical and financial risks. The main levers are as follows: seeking new maintenance or operating policies with a view to improving the availability or flexibility of resources and adapting the mix of facilities; segment-based market share strategies, tariff changes, scaling interruptibility and seeking new sales offers; and adapting existing long-term contracts and seeking structured contracts with suitable counterparts.

Management of the electricity supply/demand equilibrium can also be considered in **the short term** (1 month to 3 years) within the framework imposed by the extreme risk (volume risk) and price risks policies drafted in accordance with the directives of the Group Risk Management Division as approved by the Integration and Deregulated Operations France Chief Officer. From a physical point of view, the main risks for energy are variations in temperature, hydraulicity, availability of the generation fleet and market shares. Thus for example, a decrease in temperature of 1°C in winter leads to an increase in consumption of electricity in France of approximately 1,700 MW (source RTE-EDF Transport) and, in two extreme years, the difference in available volumes of hydropower can reach 15 TWh. The DOAAT also manages the exposure of EDF's upstream/downstream portfolio to energy wholesale markets' prices (electricity, gas, coal and oil products) and the CO<sub>2</sub> emission rights' market's prices variations.

In order to be able to face "volume risk", the DOAAT takes each week significant power margins to reduce the likelihood of EDF being obliged to make purchases on the spot market (next-day monitoring) to satisfy its portfolio of market commitments. DOAAT also has a group of leverage actions: the programming of generation way (in particular, nuclear power) maintenance operations, stock management (fossil fuels, hydropower reserves and customer removal capacity), sales and purchases on wholesale markets. The DOAAT manages the price risk through EDF Trading, the only entity authorized to conduct economic arbitrage on wholesale markets, depending on anticipated changes in market prices.

In the short term - (within the same day up to weekly) - the DOAAT is in charge of the "balance responsibility" in EDF's scope towards RTE-EDF Transport in mainland France, i.e., EDF undertakes to compensate RTE-EDF Transport financially in the event of a discrepancy within the scope of its equilibrium management. The optimization consists of informing RTE-EDF Transport the day before of an offer/supply balanced program for the next day which allows the reduction of the supply costs of EDF's contractual commitments. In order to ensure balance in EDF's scope, the DOAAT can benefit from the flexibility of the customer portfolio (namely, its interuptibility) or generation assets (moving shutdowns and trials, assets which can be mobilized within a few hours, such as the fossil fuel fleet, or within a few minutes, as it is the case for combustion turbines and hydropower assets), depending on their economic value and by hedging them with the "spot" sales and purchases of energy carried out by EDF Trading on the markets. Customer portfolio and generation flexibility go as far as allowing arbitrages within the same day.

The DOAAT's optimization activity becomes more visible when extreme climatic events occur, since it allows to limit their physical and financial consequences. Therefore, the net impact of July 2006 heat wave on EDF's margin was limited to €100 million, when compared to €300 million following a similar episode on August 2003. Due to the physical and organizational closeness between the optimizer and the trader and the other actors of the upstream/downstream generation and supply chain, it has been possible to efficiently use all available leverages: postponing facilities' shutdowns to the summer period, removal of long term and large industrial customers' contracts and optimizing wholesale markets' purchases through EDF Trading.

In addition, the DOAAT analyses and evaluates the impact of regulatory and institutional developments on the physical and financial balance of the generation-supply portfolio, which may affect EDF's businesses: system for allocating capacities at the borders; more stringent environmental constraints; and supply security and balance of the electricity network.

Under the framing of the French Electricity Union, some French producers (such as EDF, GDF, Suez and SNET), have implemented a daily information communication system concerning their facilities' generation and their availability prospects. As of November 15, 2006 this information is daily communicated on RTE-EDF Transport's website. It has been agreed on by generation professionals and it mainly concerns:

- information related to the reference fleet and to French generation, as well as a weekly information on the level of the French hydropower stock:
- information on the expected availability of short term, medium term and long term generation capacities.

This system was welcomed by market operators due to its contribution to transparency in the functioning of the European electricity market. It increases the visibility that all market operators have over the electricity offer / demand balance in France over a period of three years.

## 6.2.1.3.2.2 OPTIMIZING THE GAS UPSTREAM/DOWNSTREAM EQUILIBRIUM

DOAAT optimizes the upstream/downstream equilibrium of EDF in the domain of natural gas over a three year horizon and manages all corresponding gas movements.

Upstream gas comprises medium to long term gas supply contracts (gases and LNG) negotiated by the Gas Division, purchase and sales on the natural gas wholesale markets by EDF Trading, and the associated logistics: capacities for the transit and transmission of natural gas, regasification at methane terminals and storage of natural gas.

Downstream consists of the customer portfolios of EDF, EDF Belgium and from April 2008, Electricité de Strasbourg.

Optimizing means reducing the costs of procurement and the associated logistic capacities, in compliance with the risk and sales projection policy of the company. Minimizing procurement costs is achieved by arbitrage over all time periods, between recourse to the wholesale market via EDF Trading and mobilizing available portfolio flexibilities: procurement contract deliveries, use of storage capacities, supply interruptions provided for in contracts with various customers. For management of market price fluctuation risks, DOAAT decides on the necessary financial hedging, which is implemented via EDF Trading.

#### 6.2.1.3.3 EDF TRADING

Electricity and fossil-fuel trading is a key element in optimizing EDF's

generation and supply activities insofar as, in the context of wholesale markets, the constraints of generators and suppliers must be accounted for jointly, and not separately.

EDF Trading is the entity in charge of trading on the wholesale markets for electricity, natural gas, fossil fuels and CO<sub>2</sub> emission permits on behalf of EDF. It benefits from EDF's leading position in Europe. EDF Trading is also in charge of the purchase and sale of transmission capacities within the European transmission networks, interconnections of France and gas trading activities on the wholesale markets in support of the development of the Group's gas strategy and the supply of coal and oil to EDF's power plants. In 2007, EDF Trading traded approximately 1,207 TWh of electricity, 186 Gm³ of natural gas, 454 millions tons of coal and related transmission capacities, 205 million barrels of oil (primarily by-products), and emission certificates for 325 million tonnes of CO<sub>2</sub>.

The trading activities of EDF Trading are integrated into DOAAT's optimization strategy. Thus, the Director of DOAAT is a member of the Board of Directors of EDF Trading. The Chief Executive of EDF Trading is also a member of DOOAT management team.

Since 2006 EDF Trading has maintained a trading subsidiary in France, charged with day ahead and intraday trading activities related to electricity, in particular in France and in Germany. In addition to an immediate increase in the market optimization of EDF in France which resulted, this entity develops important new creative activities for the Group using EDF Trading's market expertise for more dynamic management of the EDF asset portfolio in France. This entity is controlled by EDF Trading London and relies on the latter for its risk management. It is a subsidiary of EDF Trading Markets Limited, itself a wholly-owned subsidiary of EDF Trading located in London and regulated by the British Financial Services Authority "FSA, Financial Services Authority".

The reduction of the credit risk associated with trading activities is ensured by means of collateral agreements entered into by the market operators ("netting agreements").

#### 6.2.1.3.3.1 TRADING IN ELECTRICITY

EDF Trading is the exclusive interface between EDF and the electricity wholesale markets. It is therefore responsible for optimizing and carrying out daily purchases and sales and executing the futures hedging transactions decided upon by DOAAT.

This responsibility originally enabled EDF Trading to develop rapidly in the main electricity wholesale markets in Europe. EDF Trading is now known as one of the most important and high-performing traders in continental Europe and the United Kingdom. Since the end of 2007, EDF Trading is also active on the wholesale electricity market in Poland.

The majority of EDF Trading's electricity-related activities are based essentially on bilateral over-the-counter transactions. The proportion of transactions carried out using financial instruments, for which delivery and settlement take place for cash only, has increased gradually and consistently over recent years, due to the wish of newcomers to reduce their exposure to physical and credit risks. Nevertheless, this development remains limited, in as much as market operators create, use and sell underlying products, and frequently require the products to be physically delivered.

#### 6.2.1.3.3.2 TRADING IN CO,

EDF Trading has a significant role on the European market for  ${\rm CO_2}$  emissions permits. EDF Trading is in addition the exclusive interface for EDF and EDF Energy with the wholesales market for their hedging opera-



tions. EDF Trading is also active on the market of clean development mechanisms. This program defined by the Kyoto protocol allows the acquisition of emission credits generated by reduction of green house gas emission projects in emerging countries (China, India, Brazil). In November 2006, EDF set up a Carbon Fund Group, the management of which was handed over to EDF Trading, combining companies of the EDF Group: EDF , EDF Energy, EnBW and Edison. By mutualising of the Group's capacities regarding the purchase of emission credits, this fund has a purchase capacity of approximately  $\leqslant\!300$  million and places it as one of the principal actors on the clean development market. With the creation of this fund, the different companies of the EDF Group consolidate their CO2 hedging strategy by diversifying their resources in emission allowances. This enables them to ensure that their environmental commitments are met with optimal economic conditions.

EDF Trading was rewarded for its activities in the  ${\rm CO_2}$  and emission credit markets by winning the first prize in the 2007 Energy Business Award in the emission permits markets category.

#### 6.2.1.3.3.3 TRADING IN GAS

EDF Trading is one of the main traders on the European gas markets and operates in the United Kingdom, Belgium, The Netherlands, Germany and France. EDF Trading is involved at every step in the supply chain, from the purchase of the product directly from offshore platforms through to the supply of the product to the customer. It is also involved with transmission and storage. EDF Trading's gas activities are based on a large number of structured transactions.

EDF Trading has exclusive responsibility for the interface between EDF and the gas wholesale market. It optimizes and implements daily buying and selling transactions and conducts long term hedging operations decided on by DOAAT.

EDF Trading has since 2006 also been active on the liquefied natural gas market (LNG). EDF Trading holds regazification capacity at the Montoir gaz terminal for 2007 and 2008. On June 7, 2007 EDF Trading signed a contract with Ras Laffan Liquefied Natural Gas Company Limited (II) (RasGas), a Qatar gas company (see Section 6.4.2 "Gas Activities").

In 2007, EDF Trading obtained a license to supply natural gas in Spain.

### 6.2.1.3.3.4 TRADING IN COAL AND IN COAL FREIGHT

EDF has entrusted EDF Trading with the exclusive responsibility for supplying its fossil-fired power plants with coal. EDF Trading is also responsible for supplying the EDF Energy's thermal power stations with the international coal purchases. EDF Trading is one of the major operators on the physical and notional markets for coal and for the corresponding freight. EDF Trading purchases coal from the main generation sites in the world, including South Africa, Australia, Colombia, Indonesia and Poland, and is one of the main coal importers in Europe. EDF Trading has entered into long-term purchase contracts in the Pacific and Atlantic basins and has specialized teams who are highly experienced in maritime and land logistics.

In July 2007, EDF Trading acquired the company Amstuw BV, which manages three coal terminals with a total capacity of 15 million tonnes per annum in the port of Amsterdam. In November 2007, EDF Trading and Chubu Electric Power Company announced an agreement on supplying and trading coal in Japan.

#### 6.2.1.3.3.5 TRADING IN OIL

In view of the fact that the price of gas contracts is indexed to oil product

prices, EDF Trading takes financial positions on the oil market. Trading activities in this area consist mainly of executing hedging transactions on the gas contracts portfolio and developing trading around these positions, based on arbitrage opportunities arising on the markets, always strictly within the risk limits set by the Board of Directors.

#### 6.2.1.3.3.6 BIOMASS TRADING

In July 2007, EDF Trading acquired the company Renewable Fuel Supply Limited (RFSL). RFSL supplies biomass, the associated logistics, and technical support services for electricity generators wishing to use a dual fuel supply (biomass and coal) for their coal-fired power stations.

#### 6.2.1.3.4 CAPACITY AUCTIONS

The DOAAT manages the capacity auctions mechanism ("VPP"). Capacity auctions result from a commitment made by EDF to the European Commission in the context of EDF's acquisition of EnBW shares. Since 2001, EDF has therefore committed to making part of its generation capacities available to the market for an estimated initial period of 5 years which means in principle until February 7, 2006. This commitment, made at the beginning of 2001, was intended to facilitate access of competitors to the French market by mitigating for a few years the difficulties of supply existing on the emerging French market. It aimed at mitigating the effects of the EDF-EnBW deal on the French competition situation.

In 2007, almost 40 TWh (for 41 TWh in 2006) was made available to the market.

Since February 2006, EDF has had the possibility to file a motivated request to remove itself from the auction process. As of today, EDF decided to not make this choice. In September 2006, after discussions based on proposals made by EDF, the European Commission authorized a certain number of changes to the auction process, notably the introduction of a basic product for a four year period, on sale since September 2006, without any changes to the annual volume of energy made available by EDF.

Auctions therefore still continue every quarter. If the termination of auctions is planned, EDF would be in favor of a progressive exit, to avoid too much disturbance in the market.

## 6.2.1.3.5 Purchase/sales contracts for wholesale electricity

EDF has trade relationships with important European operators, such as Electrabel-Suez, Enel, EnBW, REE, NOK, EGL, Atel, Poweo and SNET-Endesa, through numerous energy purchase and sales contracts.

In 2007, the volumes sold and purchased represented 55 TWh and 8 TWh, respectively.

There are several types of contracts, relating to:

- rights to energy generated by generation plants, mostly nuclear, in which the contracting parties have a stake as long as the installation is in operation (see Section 6.2.1.1.3.1 ("EDF's nuclear fleet") above);
- drawing rights for electrical power, totally or partially guaranteed for a period lasting generally from 15 to 25 years;
- rights and obligations contracted for with formerly related generators (mainly SNET, which became independent of EDF when markets opened).

The portfolio of contracts is representative of the structure of EDF's generation facilities, mainly comprised of nuclear plants. EDF sells energy at basic load and purchases it at mid-merit or peak load.

As for what concerns interconnections, as of January 1, 2006, the French regulator made the decision to eliminate priority access at the interconnections networks between France and adjacent Member states. Access to interconnections now involves a horizontal auction system of at most one year to reserve exchange capacities, which applies to all transactions, including historical long term contracts. Half of the energy processed in 2007 was delivered to counterparties on the French main transport network. The other half was delivered on interconnection points with Swiss electrical systems pursuant to rights of access recognized to EDF's counterparties despite interconnection capacities reservations' market mechanisms.

#### 6.2.1.3.6 SUPPLYING ELECTRICITY TO ALTERNATIVE SUPPLIERS

By its decision of December 10, 2007, the Competition Council accepted and made mandatory the commitment proposed by EDF on making available to alternative suppliers a substantial capacity of electricity of 1,500 MW base load, i.e, a volume of approximately 10 TWh/annum over periods going until fifteen years, at price levels allowing competition with EDF offers on the free mass market (see Section 20.6 ("Significant changes in the financial or supply situation")).

For an initial five year period from 2008 to 2012, the price in current euros fixed at €36.8/MWh for 2008, will increase progressively to reach €47.2/MWh in 2012, for an average of €42/MWh in current euros.

Concerning the second ten year period, it is anticipated the price will be fixed to cover the expansion costs of the EPR at Flamanville (estimated to €46/MWh in 2006, in euros 2005).

These volumes will be allocated during three succesive invitation to tender in 2008 and 2009 open to all alternative electricity suppliers in France. The awards will be at prices the purchasers are willing to pay to benefit from the electricity offered for the second ten year period. The minimum capacity accessible to each purchaser is 1 MW. The first award was on March 12, 2008. 12 companies have participated to this award which had allowed 5 companies to purchase the 500 MW proposed by EDF. The second award will be organized during the second semester of 2008.

## **6.2.2 Regulated activities in France**

In France, EDF's regulated operations consist of the following:

- transmission, handled by RTE-EDF Transport;
- distribution, handled by ERDF and the joint operator with Gaz de France;
- EDF activities in Island Energy Systems (Corsica, French overseas departments and Saint-Pierre-et-Miquelon), which are managed by the Island Energy Systems Division (Systèmes Energétiques Insulaires, or "SEI").

The tariffs for these regulated operations are established on the basis of the Tariffs for Using the Public Electricity Transmission and Distribution Networks (*Tarif d'Utilisation des Réseaux Publics de transport et de distribution d'électricité*, or "TURP") and on the basis of compensating the additional generation costs in zones that are not interconnected with the network in metropolitan France (*Compensation des Surcoûts de Production dans les Zones Non Interconnectées au réseau métropolitain continental*, or "CSPE ZNI") (see section 6.2.2.4 ("Tariffs for Using the Public Electricity Transmission and Distribution Networks ("TURP")")).

#### 6.2.2.1 TRANSMISSION - RTE-EDF TRANSPORT

Created on July 1, 2000, RTE is the operator of the French power transmission network, which it owns, operates, maintains and develops. With some 100,000 km of high and very high voltage circuits and 44 cross-border power lines, this network is the largest in Europe. Its geographical position places RTE-EDF Transport at the heart of the European electricity market. RTE-EDF Transport is the entity responsible for the correct operation and safety of the electricity network. It guarantees equitable access of all users of the network and, before its incorporation as a subsidiary, was to such purpose within EDF, an independent service with separate management, accounting and financial arrangements. RTE was converted into a subsidiary, RTE-EDF Transport, in 2005, and has since been a wholly-owned subsidiary of EDF, fully consolidated in the financial statements of the Group.

In 2007, RTE-EDF Transport recorded sales of  $\leqslant$ 4,126 million, EBITDA of  $\leqslant$ 1,588 million and net income of  $\leqslant$ 466 million. The financial liabilities amounted to  $\leqslant$ 6,363 million as of December 31, 2007 (source: RTE-EDF Transport 2007 annual report).

The table below sets forth a simplified evaluation of energy flow on the RTE network over 2004 to 2007:

(TWh)	2004	2005	2006	2007*
Injections				
Generation	521.6	522.7	520.6	514.8
Withdrawals				
Energy withdrawn for pumping	7.2	6.5	7.4	7.7
Deliveries (including losses)	452.5	455.8	449.6	450.1
EXPORT BALANCE OF PHYSICAL EXCHANGES	61.9	60.4	63.6	57.0

<sup>\*</sup> Provisional figures.

In 2007, the net balance of physical exchanges of RTE-EDF Transport with countries abroad remained that of an export balance, except the cold periods of the last quarter, during which the net balance became of an import balance for a period of approximately 500 hours spread over 43 days. It falls however regarding 2006, essentially by the fall of exportations with England and with continental Europe States. On the other hand the balance increases with Italy and Spain.

#### **6.2.2.1.1 RTE-EDF Transport Activities**

RTE-EDF Transport:

 manages power flows: RTE-EDF Transport is responsible for the supply/demand balance and makes adjustments, manages electricity flows and manages access rights to international interconnections, in collaboration with neighboring network operators. It mobilizes reserves and compensates for losses. It makes the necessary accounting adjustments and resolves imbalances:



- manages the transmission infrastructure: RTE-EDF Transport operates and maintains the public transmission network and is responsible for its development, for minimizing costs for the community and for ensuring the safety of the system, people and property; and
- guarantees access to the transmission network: it enters into contracts with transmission network users on the basis of network access tariffs and in accordance with rules of non-discrimination.

#### 6.2.2.1.1.1 POWER FLOW MANAGEMENT

#### Cost allocation

The costs corresponding to the balancing offers activated by RTE-EDF Transport as a result of negative imbalances are passed on to the balance responsible entities (generators, traders, suppliers, etc.) proportionately, based on their imbalance. In the event of positive imbalances RTE-EDF Transport financially compensates the balance responsible entities for positive imbalances.

#### Interconnections

RTE-EDF Transport manages access to international interconnections in collaboration with the transmission system operators of neighboring European countries.

The European electricity transmission networks are interconnected, and ensure that energy can be transmitted from one country to another. These interconnections are used to ensure the operating safety of the electricity transmission networks (in particular using neighboring generators and transmitters to compensate for a major generating or transmission unit outage in France and conversely) and to develop the European electricity market by enabling an electricity supplier to sell its energy to a customer in another country in the European Union. Moreover, these interconnections, by working on the basis of time differences between peak-loads on different sides of borders, enable generation capabilities to be better shared at a European level.

Concerning the project of the line between France and Spain, the European Commission has appointed a "European coordinator". During the Franco-Spanish summit of January 10, 2008, the Heads of State recalled they expected proposals by the June 30, 2008. At the end of the summit, RTE-EDF Transport and REE (manager of the Spanish transmission network) signed a memorandum of understanding intended to create a joint company responsible for developing an electrical link via the Eastern Pyrenees. The legal and financial formation of this company remains to be implemented.

An agreement between RTE-EDF Transport and TERNA (manager of the Italian transmission network) was signed on November 30, 2007, to foster development of the electrical connection between France and Italy. This agreement will increase the existing connection capacity by 60%. RTE-EDF Transport and TERNA undertake to improve the existing network and study the feasibility of a new electrical interconnection between the two countries.

#### Tri Lateral Market Coupling

Due to the existing limitations in cross-boarder exchange capacities, the European regulation n° 1228/2003 sets forth new rules at European level to handle problems related to the network congestion for the allocation of interconnection capacities (see Section 6.5 "Legislative and regulatory environment")). For practical purposes, there are two methods which allow to comply with this regulation:

- allocation of an interconnection capacity by open auctions: the sale of exchange programming rights;
- allocation by implicit auctions: interconnections access priority is given

to the less expensive energy blocks.

In this last case, "market coupling" will be carried out. Market coupling is based on the performance of energy markets and boils down to merging purchase and sale book buildings of two nearby markets and creating a common price for such markets, within the import and export exchange capacities' limit.

The coupling of the three electric markets France-Belgium-The Netherlands, called "Tri Lateral Market Coupling" started on November 21, 2006. It is the first experience of this kind in Europe (except for Nordpool).

#### 6.2.2.1.1.2 Management of the transmission infrastructure

#### Maintenance

RTE-EDF Transport is responsible for maintaining the transmission network, through everyday maintenance, emergency repairs and the renewal of installations that are at the end of their service lives or that are damaged.

Following the storms of 1999, RTE-EDF Transport implemented a "mechanical safety program". Undertaken with numerous external subcontractors, the program's objective is to strengthen the mechanical resistance of overhead lines to enable them to withstand wind speeds of up to 150 km/hr and to transform or install approximately 16,400 "anti-cascade" towers in order to prevent a domino effect when faced with higher wind speeds. Completion of the entire network security program by 2017, as agreed with the public authorities (public service contract) in preparation for major climatic events, will require, after studying all the technical arrangements to be implemented and changes in the initial scope of the project, a gradual increase between 2008 and 2011 in financing for operating costs, which will increase from €105 million (in euros 2007) in 2008 to €175 million (in euros 2007) from 2011.

#### Development

RTE-EDF Transport is also developing the transmission network. The aim of the new projects is to strengthen the national network and anchor the French transmission network in the European system.

Every year, RTE-EDF Transport prepares an investment program for several years which is approved by the Energy Regulation Commission. In 2007, RTE-EDF Transport spent €792 million for the development of its network, as opposed to €638 million in 2006.

#### New investments carried out in the transmission network

• The Chaffard-Grand Ile and Marlenheim-Vigy lines

In October 2007, the new 400 kV Chaffard-Grand lle link between Lyon and Chambéry, and the first section of the new 400 kV Marlenheim-Vigy line were brought into service on schedule. These lines will reinforce the security of the electric supply of respectively the Chambéry area and the Alsace area.

• Cotentin - Maine

The project of the 400 kV Cotentin and Maine electric line, which should be approximately 150 km long, is meant to ensure the security of the French electric system at the time of the commissioning of the Flamanville 3 generation site.

## A new stage in increased investment in RTE-EDF Transport networks

Integration of the European market, fundamental restructuring of the

generation fleet, and societal changes that reinforce the constraints on integrating new infrastructure in the public interest and maintaining industrial resources to meet customer and local authority needs: these are the challenges RTE-EDF Transport must confront in its mission as manager of the electricity transmission network. To meet these demands, RTE-EDF Transport is entering a new phase in terms of investment, which has experienced substantial growth since 2004, and will increase to approximately €950 million per annum during the period 2008-2011.

#### The Energy Balance in 2007

## Moderate increase in domestic electricity consumption and increase in peak demand

French domestic electricity consumption in 2007 (480.3 TWh) increased 0.4% (+1.9 TWh) in relation to 2006. Direct customers connected to the RTE-EDF Transport network also recorded an increase in consumption (+2.6%, i.e. +2.1 TWh). The increase in domestic consumption and of direct customers connected to the RTE-EDF Transport network is linked to the behavior of major industrial customers in the energy sector; excluding major energy sector customers, consumption of direct clients connected to the RTE-EDF Transport network fell by 1.4% and domestic consumption by 0.3%.

The varying climatic conditions encountered in 2007 compared with 2006 resulted in a reduction in consumption of 8.6 TWh in 2007 as against the previous year. As a result, domestic consumption corrected for climatic factors (480.8 TWh) increased by 2.2% in 2007 compared with 2006; excluding major customers of the energy sector, growth in domestic consumption corrected for climatic factors was adjusted to 1.6%. This growth was generated by greater use of electricity by customers connected to low voltage networks (residential customers, small businesses, public services, public lighting, miscellaneous tertiary) whose consumption increased by approximately 2.6% corrected for climatic factors, whereas SMEs serviced by the high voltage network recorded an increase of approximately 1% in consumption corrected for climatic factors.

In 2007, a new absolute maximum for consumption in France was recorded on Monday, December 17 at 18.58, peaking at 88,960 MW for an average daily temperature of  $-0.8^{\circ}$ C ( $-6.0^{\circ}$ C compared to the normal level).

The sum of cross-border commercial exchanges (exports + imports) reached 110.5 TWh in 2007, lower than in previous years except for 2002. The difference was -7.3 TWh (-6.2%) compared with 2006.

Such results confirm RTE-EDF Transport's analysis presented in the 2007 Provisional Balance sheet which predicts more moderate growth in electricity consumption, the expansion of new generation resources (wind, gas combined cycles, etc.) and an adequate supply/demand equilibrium until 2014.

#### 6.2.2.1.1.3 RTE-EDF TRANSPORT INTERNATIONAL ACTIVITIES

RTE International, a subsidiary of RTE-EDF Transport created in September 2006, is the RTE interface for all engineering and consultancy services outside France in response to invitations to tender or negotiations.

During 2007, twenty-three contracts were won in the context of international bids or negotiated in the framework of general agreements, notably:

- in Turkey, the European invitation to tender for twinning with the Turkish GRT TEIAS was awarded to RTE-EDF Transport;
- in Serbia, financed by the European Reconstruction Agency, a contract was won to reinforce the technical, economic and commercial capacities of the Serbian GRT EMS;

- in Algeria, on conclusion of an invitation to tender, the General Engineering Division of the Sonelgaz gas and electricity company awarded RTE International a contract for technical support for a period of three years;
- in Libya, RTE International will support the GECOL electricity company (General Electricity Company of Libya) in transforming its company management to achieve enhanced global performance commensurate with international standards.

#### 6.2.2.1.2 Organization of RTE-EDF Transport

## RTE-EDF Transport is a French société anonyme with an Executive board and a Supervisory board

Pursuant to Law n° 2004-803 of August 9, 2004 and Decree n° 2005-1069 of August 30, 2005 which approved the RTE-EDF Transport's articles of association, the company is managed by an Executive board under the control of a Supervisory board.

RTE-EDF Transport's Supervisory board comprises twelve members, including six members appointed by the ordinary Shareholders' Meeting, four members representing employees and two members representing the French state. They are appointed for five years.

RTE-EDF Transport's Executive Board comprises a maximum of five individuals, appointed for 5 years, who carry out their responsibilities under the control of the Supervisory Board. Subject to the approval of the Minister of Energy, the Supervisory Board appoints the Chairman of the Executive Board as well as, based on the Chairman's recommendations, the other members of the Executive Board.

Pursuant to Article 14 of the French Law of February 10, 2000, the Chairman of the Executive Board submits to the CRE, on an annual basis, the investment program for the public electricity transmission network, in accordance with RTE-EDF Transport's medium-term financial plan.

In France, management of the Public Transmission Network (PTN) is performed by RTE-EDF Transport pursuant to Article 7 of the Law of 2004-803 dated August 9, 2004. Article 12-II of Law 2000-108 dated February 10, 2000 provides that the PTN manager should perform its mission under the conditions set out in model concession specifications approved by decree of the French Council of State following an opinion by the Energy Regulation Commission. The PTN concession model specifications were approved by Decree no. 2006-1731 dated December 23, 2006. These specifications will only become applicable after a concession agreement is concluded between the State and RTE-EDF Transport (anticipated in the next few months) incorporating in its appendix, specifications that conform to the model specifications. The new specifications will replace those dating from 1995, which are inappropriate for the new legal framework created by directives 96/92/EC dated December 19, 1996 and 2003/54/EC dated June 26, 2003 (legal separation of accounting and management for the transmission and generation activities and the supply of electricity).

## 6.2.2.1.3 Tariff for using the public transmission network

The tariff for using the public transmission network is a component of TURP (see Section 6.2.2.4 ("Tariffs for Using the Public Electricity Transmission and Distribution Networks (*Tarif d'Utilisation des Réseaux Publics de transport et de distribution d'électricité*, or "TURP")")).

## **6.2.2.2** DISTRIBUTION – ERDF (ÉLECTRICITÉ RÉSEAU DISTRIBUTION FRANCE)

The main purpose of distribution activities is to deliver the electricity sold



by electricity suppliers to end-users. Following the French Law related to the energy sector passed on December 7, 2006, EDF contributed all its distribution operations into a wholly-owned subsidiary, ERDF, operational since January 1, 2008. ERDF serves approximately 34,000 out of some 36,500 French municipalities, or 95% of the volume of electricity distributed in France, 5% being distributed by non-nationalized distributors or local distribution companies.

ERDF delivers electricity to the installation terminals (meters) of network customers, where the withdrawals are made. A number of different operators inject electricity into the distribution network. The main operators are as follows:

- RTE-EDF Transport, which is responsible for energy transmission in France (see Section 6.2.2.1 ("Transmission – RTE-EDF Transport")): the corresponding injections are made from the source substations spread over the network; and
- generators with installations whose size allows electricity to be injected directly into the distribution network.

These injections must compensate, at all times, for customer withdrawals and network losses. Failure to do so may result in a deterioration in the quality of the supplied product (quality of the wave, voltage and even the continuity of supply).

The electricity volumes (preliminary information) transmitted on ERDF's network in 2007 are as follows:

- injections:
- by RTE-EDF Transport: 335.8 TWh;
- by decentralized generators: 17.1 TWh;
- withdrawals: 330.0 TWh; and
- losses: 22.9 TWh.

The distribution network generates losses, which are in part due to physics (the Joule effect) and depend directly on the quantity of electricity transmitted. ERDF must compensate for these losses in order to supply the quantity of electricity required by the end-users. In 2007, the loss rate was 6.5% of the electricity injected into the network, *i.e.*, 22.9 TWh. The cost to ERDF was €1,418 million in 2007. To compensate for these losses, ERDF purchases the corresponding electricity on the market by means of invitation to tender, placing approximately 20 qualified suppliers in competition.

ERDF operates through the following businesses:

- investment and asset management: as licensee, managing the licensed assets (extension, strengthening and renewal of the network);
- network access management: conducting relations with network users within the context of the applicable contractual mechanisms;
- operation and maintenance: operating and maintaining the network in an optimal operational state:
- execution of works: carrying out work on the network either directly or by using subcontractors; and
- metering services:
  - managing the meter system;
  - acquiring, processing and transmitting the consumption data of network

#### Distributor preparations for the 2007 market opening

The distributor has participated in several sub-groups within the 2007 electricity working group and the 2007 consumer working group under the supervision of the French electricity regulatory commission. These

sub-groups were responsible for outlining the procedures customers would have to follow when the markets opened, and more generally, the operating rules for all the market's actors (see Section 6.2.1.2 ("Sales and Marketing")). In this context, a new version of the contract between the suppliers and the distribution network manager has been prepared, which must be agreed to before suppliers can enter into a single contract with their customers

#### 6.2.2.2.1 DISTRIBUTION NETWORK

#### **TECHNICAL CHARACTERISTICS**

As of December 31, 2007, the distribution network for which EDF is the licensee (see Section 6.2.2.2.2, "Concessions" below) comprises approximately:

- 596,200 km of 20,000 volt high voltage lines (HTA);
- 669,300 km of 400 volt low voltage lines (BT);
- 2,203 HTB/HTA source posts; and
- 732,200 low voltage/high voltage transformers.

Generally speaking, this network's limits are:

- upstream: the source substation owned by ERDF for the part that it operates, which forms the interface between the transmission network and the distribution network;
- in certain cases, and still upstream, the substation connecting to generation installations that are directly connected to the distribution network; and
- downstream: the meters and circuit breakers installed at the premises of the customer, which fall within the scope of the concession.

#### **EVOLUTION IN INVESTMENTS**

In 2007, €1,737 million were invested, €727 million of which were mainly allocated to the connections of new customers and producers. The new launch of investments thereby represents an increase of more than 12% in the distribution network between 2005 and 2007. The additional resources engaged thereby are applied to ensuring networks' security, to safety in general and to environmental protections, three fields in which customers and local authorities' expectations are particularly high. In total, between 2005 and 2007, EDF has invested approximately €5 billion in distribution networks in mainland France. In addition, the conceding authorities invested approximately €800 million in 2007, bringing the total investment in distribution networks in mainland France in 2007 to approximately €2.5 billion. ERDF plans to spend almost €2 billion in 2008 in order to meet growing customer demand, upgrade its facilities, and reduce its network's vulnerability to weather conditions (sticking snow, storms, floods, heat waves, etc.).

Significant efforts are aimed at reducing imbalances among geographic regions, with the aim of maintaining quality and improving performance in areas where a need for better quality has been identified.

In order to comply with the public service agreement's objectives as well as with environmental and aesthetic objectives, EDF has also undertaken to bury 90% of the new high-voltage lines and to apply "discreet techniques" to two-thirds of the new low-voltage lines. ERDF does not plan to bury its entire network, as a buried network is subject to the same supply interruption risks as an overhead network. It may be subject to external shocks (heat waves, floods, works, etc.), and the time required to locate the incident and to re-establish the customer's supply may be longer than in the case of overhead networks.

#### DISTRIBUTOR'S PROJECTS

In an effort to improve productivity, ERDF decided to test a new generation of connected meters. These meters let distributors act at a distance and bill customers based on a real index. This experiment opens new opportunities, such as lower costs through electronic meter-reading and maintenance, and better service to customers and suppliers through more options for consumers and more efficient network management (e.g., careful control of supply quality, improved load curve, and fewer non-technical losses). The French electricity regulatory commission is overseeing this experiment, which will involve 300,000 customers before 2010. This will allow to foresee the eventual renewal of all ERDF's 35 million meters. This wide project, if implemented, would take 10 years and could cost several billion euros.

#### QUALITY OF CONSOLIDATED SERVICE PROVIDED

The quality of service provided, which is ERDF's main purpose, implies the maintenance of a regular voltage, keeping close to its contractual value and eliminating service interruptions. As for what concerns voltage quality, over 99% of customers were considered to be well supplied in 2007, according to current applicable rules. On the contrary, the recent build-up of extreme climate conditions (sticking snow, freezing rain, violent storms in 2006, and episodes of heavy snowfall in early 2007) have led to an increase in the cumulated average length of interruption from 60 minutes in the last few years to 94 minutes in 2006 and 72 minutes in 2007.

A climate contingencies action plan was developed and implemented in 2006, in accordance with the public service agreement (see Section 6.4.3.4 ("Public service in France")). This plan is based on a complete evaluation of the network's potential weaknesses in respect to climatic events, and provides, in particular, for the burying of over 30,000 km of medium-voltage lines within 10 years.

In order to be able to face major incidents, ERDF created a special rapid-response task-force (*Force d'Intervention Rapide* or FIRE) which allows it to focus teams from all regions in the affected area, in order to end the service interruption as quickly as possible.

#### 6.2.2.2.2 CONCESSIONS

In France, local governments own electricity distribution networks and issue concessions for their development and operation, as well as for the distribution and supply of electricity at regulated tariffs. EDF, jointly with ERDF since January 1, 2008 is the only licensee authorized by a French Law passed on April 8, 1946, to operate public distribution networks in France, apart from municipalities which had previously chosen to operate their networks themselves through local utilities or other legal structures called non-nationalized distributors or local distribution companies. ERDF operates the distribution networks through concessions granted to local licensing authorities which, in 97% of cases, form a syndicate of municipalities. ERDF manages approximately 1,200 concession contracts distributing electricity to 94% of French municipalities and 95% of the French population.

## TERMS OF THE CONCESSION CONTRACTS

A framework concession contract and specifications were adopted (with adjustments, depending on whether the contract was entered into with an urban municipality or a syndicate of municipalities) in June 1992 following negotiations between EDF and the National Federation of Licensors and Local Utilities (Fédération Nationale des Collectivités Concédantes et Régies, or FNCCR) and were validated by public authorities. This concession was updated in July 2007 to account for new French legislation (see Section 6.5.3, "Public electricity distribution concessions"). To date, approximately 95% of the concession contracts have

been signed according to this framework.

As of December 31, 2007, the concession contracts of 56 municipalities expired and were tacitly renewed pending the conclusion of renewal negotiations. These municipalities represent less than 1% of the population served by EDF. The contract for the city of Paris, signed on July 30, 1955, and expiring on December 31, 2009, has been updated regularly; the most recent update was on June 28, 2007, with an amendment to account for the separation of the distribution and supply operations.

The concession contract is negotiated locally on the basis of the standard framework specifications, the specific provisions of which are described in note 2.12 to the consolidated financial statements for the year ended December 31, 2007.

#### **DURATION OF THE CONCESSION CONTRACTS**

Concession contracts are generally entered into for a period of between 20 and 30 years. Weighted by consumption in kWh delivered to blue, yellow, and green tariff customers, the remaining duration of the concessions averages 15 years.

## EXECUTION OF WORK ON THE DISTRIBUTION NETWORKS: SHARED SKILLS

Contracting work on the networks (the lead contractor coordinates, carries out, and finances the work) is divided, on the basis of the principles established in the standard specifications, as follows:

- with respect to connection (network extensions and creation of connections) and installation modifications (network improvements as a result of an increase in electricity demand or to improve service quality), ERDF and the licensor share the contracting of work for rural electrification networks on a case-by-case basis. For urban networks, ERDF is generally responsible for contracting the work;
- ERDF is the lead contractor for maintenance and renewal work (maintenance, pruning, renewal, displacement and compliance); and
- the local authorities are the exclusive lead contractors for integrating installations into the environment (burying work, improvement of aesthetics, etc.).

#### MAIN FEES AND CONTRIBUTIONS

Contracts provide for the payment of a fee that enables the licensor to fund concession-related expenditures.

ERDF pays a fee for electricity installations that occupy public property. This fee is calculated according to a formula based, in particular, on the number of people served, and was revised by an order passed in March 2002. It is paid to the licensing municipalities or licensors unions and to the department.

ERDF and non-nationalized distributors pay into a French fund for electricity depreciation and amortization expenses (Fonds d'Amortissement des Charges d'Electrification, or FACE) based on the number of kWh supplied. The FACE redistributes the collected funds to the local authorities to fund their rural electrification expenditures. ERDF and non-nationalized distributors also pay into a French electricity rate balancing fund (Fonds de Péréquation de l'Electricité, or FPE), which splits the equalization charges among the distribution network operators. Equalization charges relate to the obligation to ensure that all customers across the domestic market benefit from the same electricity delivery tariff.

### 6.2.2.3 ORGANIZATION

Since 1951, all of EDF's distribution activities have been undertaken in conjunction with Gaz de France. This "mixed" model ensures greater effi-



ciency and better regional coverage. As a result, approximately one-third of technical and metering services carried out at customer premises relate to both electricity and gas.

This model has created synergies by pooling metering operations, minor maintenance work at customer sites, and the reception of network users (customers, producers, suppliers, and third parties). The model also provides a greater range of career development and motivation opportunities for employees.

Recent EU directives require that electricity and gas distribution operations are independent of a parent company's other businesses. As a result, EDF has contributed its distribution operations into a separate subsidiary, ERDF. However, a new law was passed in 2004 in order to preserve the synergies arising from the "mixed" model.

More specifically, before the ERDF subsidiary was set up on January 1, 2008, the organization was based on the Law of August 9, 2004, concerning:

- an electricity distribution network service within EDF (EDF Réseau de Distribution) serving mainland France; and
- a joint EDF-Gaz de France operator (EDF Gaz de France Distribution) responsible for operational activities of the local public service.

Gaz de France also had gas distribution network operator (Gaz de France Réseau de Distribution).

At the same time that EDF created its distribution subsidiary, ERDF, Gaz de France created its own distribution subsidiary, GRDF (*Gaz réseau Distribution France*), which began operations on January 1, 2008. GrDF is wholly owned by Gaz de France and is responsible for managing public gas distribution networks.

Since January 1, 2008, ERDF has been operating EDF's electricity distribution network in mainland France, and as set forth in Article 27 of French Law passed on December 7, 2006, ERDF and GRDF have been jointly carrying out some of EDF's distribution activities – but not through a structure with the status of a legal entity. The activities carried out jointly by ERDF-GRDF include construction and maintenance of electricity and gas networks, project management, network operation and management, and metering activities.

#### Conversion of the distributor into a subsidiary in 2007

Article 15 of Directive 2003/54/CE of June 26, 2003 states that if the manager of a distribution network belongs to a vertically integrated company, its distribution operations must be legally independent from its other operations in terms of organization and decision-making.

A French Law concerning the energy sector passed on December 7, 2006, amended an earlier law passed on August 9, 2004, in order to transpose Directive 2003/54/CE related to the legal separation of distributors. At EDF, the operations that must be set up as a separate subsidiary are EDF Réseau Distribution (ERD) and EDF Gaz de France Distribution (EGD). EDF and Gaz de France decided to create separate subsidiaries for their respective network operators (electricity and gas), both subsidiaries sharing a joint service as permitted by law.

On June 14, 2007, the EDF Board of Directors approved an agreement to transfer assets to its fully-owned C6 subsidiary (subject to regulations concerning spin-offs), in order to implement the law passed on August 9, 2004, and following consultations with labor union representatives. This agreement was amended on November 7, 2007, to include, in particular, several changes agreed between June 14, 2007, and

November 7, 2007.

In accordance with the law passed on August 9, 2004, this agreement allows EDF to transfer to C6 its public electricity distribution network sites and other property related to electricity distribution. It also allows EDF to transfer the rights, authorizations, obligations, and contracts related to managing its public electricity distribution network. The transferred assets and obligations were allocated by C6 to the joint service.

In accordance with law passed on August 9, 2004, this transfer did not entail any amendments to ongoing contracts nor was used to justify the termination or amendment of any of their clauses, or the reimbursement of any of their associated debts.

The net book value of the transferred assets was €2.7 billion, and the transfer was recognized in EDF's tax and accounting statements retroactively on January 1, 2007.

In exchange for the assets, EDF received 540 million fully paid-up C6 shares, issued as part of a €270 million capital increase with €2.43 billion of additional paid-in capital.

The EDF Extraordinary General Meeting approved the transaction on December 20, 2007, and the C6 Annual General Meeting approved the transaction on December 21, 2007. The transaction became effective at midnight on December 31, 2007. The C6 Annual General Meeting also resolved to change the name of C6 to ERDF. The ERDF Management Board recognized the final completion of transaction on January 2, 2008.

ERDF is a *société anonyme* governed by a Management Board and Supervisory Board. The Supervisory Board has 15 members: eight appointed by an Annual General Meeting; five employee representatives (elected according to French Law 83-675 passed on July 26, 1983); and two representatives of the French government. The Supervisory Board member term of office is five years.

The ERDF Management Board has five members, all natural persons appointed for a five year term, and is monitored by the Supervisory Board. The Supervisory Board appoints the Management Board Chairman, and the other Board members based on the Chairman's recommendation. The Chairman, who is appointed for the same term as a member of the Management Board, represents the company to third parties.

## ERDF, EDF'S ELECTRICITY DISTRIBUTION SUBSIDIARY IN MAINLAND FRANCE

ERDF is a wholly owned EDF subsidiary and operates the public electricity distribution network in mainland France according to conditions specified in concession contracts, and provides other public services assigned by French Law. More specifically, ERDF:

- outlines and implements operating, investment, and expansion policies for its electricity distribution network;
- ensures that users and other electricity grids can access its network in a non-discriminatory, objective, and transparent manner, and also provides interconnections with other networks;
- gives users the information needed to access its network efficiently (except for information protected by regulations or law);
- handles relations with energy regulatory bodies (e.g., the French Ministry of Energy, the French energy regulatory commission, and government agencies granting public distribution licenses) in connection with its activities;
- handles relations with local governments;

- negotiates, signs, and executes concession contracts;
- operates, repairs and maintains its electricity distribution network;
- oversees the design and construction of network equipment, and provides project management for these networks;
- provides metering services to network users, including the supply, installation, maintenance, weather checking, and replacement of meters, and the management of data collected from the meters, as well as all responsibilities related to these activities;
- provides non-nationalized distributors, other distributors, and government organizations the services that are specified in Article L2224-31, paragraphs III and IV, of the French General Code for Local Governments; and
- and, more generally, carries out all operational, commercial, financial, or property-related activities necessary to achieve the above.

In 2007, ERDF and GRDF took over 89 million meter readings and performed 10 million customer visits. This work was carried out by approximately 13,000 joint technicians based at over 500 customer service centers.

In order to prepare for the opening of the residential market, EDF and Gaz de France have developed separate sales and marketing strategies, whereby each company manages its own customer portfolio.

The contract reference information for customers using both electricity and gas (on 12 million customers) were separated in the IT system during the first half of 2006, so that they now receive two bills (one for electricity and one for gas). In addition, during the second half of 2006, contracts and customer accounts for electricity were separated from those for gas, and two distinct departments (one for electricity and one for gas) were set up within EDF Gaz de France Distribution to manage them. On January 1, 2007, these contracts and customer accounts were transferred to EDF and Gaz de France sales staff.

### CONTRACTUAL RELATIONS FOR THE JOINT ERDF AND GRDF SERVICE

Article 2 and Article 27 of the French Laws were passed on August 9, 2004, and December 7, 2006, respectively, amended Article 5 of French Law n° 46-628 passed on April 8, 1946, and state that "each company is liable for the consequences of its operations carried out under joint services agreements that have no status as a separate legal entity"

On April 18, 2005, EDF and Gaz de France entered into a joint service agreement specifying their respective roles. This agreement outlines the scope of operations of the joint service and how costs will be shared. It was entered into for an unlimited duration and may be terminated at any time upon 18 month's notice, during which the parties must undertake to renegotiate a new agreement. If a new agreement is not entered into at the end of this period, the parties will refer the issue to the dispute resolution procedures described below.

This agreement also specifies how the joint service will be governed (e.g., organized, monitored, and modified). It gives each company the freedom to develop its own operations within the joint service. If a decision made by a company has an impact, notably financial, on the other company, an impact study is conducted and any damage would be covered by payment of financial compensation and/or by an amendment to the agreement. Decisions relating to joint operations are made jointly by the two companies.

Neither EDF nor Gaz de France can impose a decision without the prior consent of the other party.

The joint service agreement can be amended:

• at the initiative of EDF or Gaz de France. An impact study may be carried out to that effect, if necessary;

- in the event of an amendment of the law. The agreement would be adapted to take into account the applicable legislative and regulatory changes while maintaining the agreement's overall equilibrium;
- in the event of a change in economic circumstances. The conditions set forth in the agreement, in particular the financial conditions, have been determined in accordance with accounting, tax and cash management provisions that were in force at the date of the agreement's execution. They were also determined in relation to economic or legal circumstances applicable at the time of the agreement's execution. Consequently, if subsequent to a change of circumstances that had led EDF and Gaz de France to enter into the agreement:
- if one of the parties becomes subject to any tax, legal, economic, financial or other actions or events or legal proceedings implying significant consequences, particularly financial, for such party; or
- if the provisions of the agreement become irregular or illegal, with the effect of increasing the costs incurred by a party through the commitments undertaken pursuant to the terms of the agreement, significantly decreasing the benefits that such party receives from the agreement or rendering the agreement irregular or illegal,

then the party in question would immediately notify the other party. The parties will negotiate in good faith to take into account the new circumstances.

Furthermore, the agreement sets forth the methods for resolving disputes between the parties. If needed, the parties will meet to take whatever measures necessary to reach an amicable resolution within one month maximum. In the absence of an amicable agreement at the end of this one-month period, and as long as the possibility of litigation does not impact the independence of the management of the distribution networks, EDF and Gaz de France both agree to forward, pursuant to the required confidentiality rules, the litigious issues immediately to the members of the Management Board who have been delegated for this purpose, in order to reach an amicable resolution within 20 days.

In the absence of an amicable resolution between the parties, the dispute will be submitted, before submission to any court with jurisdiction, to an external mediation procedure. Upon mutual agreement, the parties will appoint a mediator and define his mandate and the time-frame within which such mandate should be accomplished. The resolution recommended by the mediator is neither obligatory nor enforceable.

In the event that either party rejects the mediator's resolution, the dispute may be submitted to the Paris courts, which have sole jurisdiction over any dispute related to the formation, validity, execution or interpretation of the agreement.

In 2007, EDF and Gaz de France agreed to amend the agreement dated April 18, 2005 in response to the French Law passed on December 7, 2006 requiring that the management of electricity and gas distribution networks be legally separated. The amendment arranges, in particular, for the companies' new distribution subsidiaries (ERDF and GrDF) to assume all the rights and obligations set forth in the agreement, and modifies or deletes technical clauses that have become irrelevant as a result of the creation of the two subsidiaries. The amendment also sets forth a procedure for future modifications to the agreement if there are changes in the governing legislation or in the control of either subsidiary (through negotiations between the parties and consistent with the financial equilibrium before negotiations were requested), as well as the composition and duties of the supervisory bodies for the joint service (Management Board and Steering Committee).



#### ALLOCATION OF COSTS AND PROPERTY

The ERDF-GRDF joint service incurs different types of costs:

- costs connected with the joint service that are related directly to one of the companies, whatever their nature, are allocated directly to the relevant company. They do not, therefore, give rise to any financial flows. For example, with respect to joint service employees who are permanently and solely assigned to electricity activities, the corresponding costs are allocated directly to ERDF;
- costs related to activities that are performed simultaneously, and without distinction for both ERDF and GRDF, whatever their nature, are allocated between the parties according to contractual allocation formulas. These costs are allocated at source between ERDF and GRDF; *i.e.*, when the expense is incurred, and each company's share is entered directly into the accounts of the respective parties. These costs do not give rise to any financial flows between ERDF and GRDF. The elements used for the calculation (cost base and allocation formula) are defined in exactly the same manner for ERDF and GRDF. Cost will usually be allocated based pro rata on the number of network users. By way of example, the allocation formulas resulted in an overall allocation of 75% for ERDF and 25% for GRDF in 2007. Regarding the joint service employees who are permanently assigned to both electricity and gas operations, the corresponding costs are allocated directly and entered into the accounts of ERDF and GRDF according to the applicable allocation formula;
- on the other hand, some costs may first be incurred and entered into the accounts of one of the two companies and then be invoiced to the other company. For example, some joint service employees are assigned for administrative reasons – and in accounting terms – to one of the two companies but may, on occasion, undertake work for the other company. The hours worked for the other company are recorded daily and are invoiced each month. In 2007, €76 million were thus invoiced by EDF to Gaz de France and €65 million were invoiced by Gaz de France to EDF. The other joint services are performed by – and entered into the accounts of- one of the two companies, which then bills the other on the basis of the contractual allocation formula. These services mainly involve IT and telecommunications, automobile services and real estate. In 2007, these joint services (excluding real estate) resulted in €73 million of billings from EDF to Gaz de France and €24 million from Gaz de France to EDF. As regards the EDF Gaz de France Distribution real estate, EDF billed €68 million to Gaz de France and Gaz de France billed €53 million to EDF in 2007. In 2006, EDF billed €129 million to Gaz de France and Gaz de France billed €89 million to EDF for these joint services.

#### **6.2.2.3** ISLAND ENERGY SYSTEMS

The Island Energy Systems (*Systèmes Energétiques Insulaires*, or "SEI") comprise the electricity networks operated by EDF that are not interconnected or only connected to a very small extent to the continent: mainly Corsica, the French overseas departments, and overseas communities Saint Barthélémy, Saint-Martin and Saint-Pierre-et-Miquelon. All of these territories correspond to "zones that are not interconnected with the network in metropolitan France" (*Zones Non Interconnectées au réseau métropolitain continental*, or "ZNI"), refered to in article 2 of the French Law n° 2000-108 of February 10, 2000 as amended by the French Law n° 2006-1537 of December 7, 2006. They share the following characteristics:

- these territories benefit from tariff equalization with continental metropolitan France; and
- the small size of their electrical network and the lack or the insignificance of their interconnection with a continental network means that the generation costs are structurally far higher than those in metropolitan France and, for this reason, much higher than the portion reflected in the tariffs.

This situation has two consequences:

- the legislator considers the additional generation costs in these SEI to be a public service charge and these costs are therefore compensated by means of a contribution to the public electricity service (*Contribution aux Charges de Service Public de l'Electricité*, or "CSPE") (see Section 6.4.3.4 ("Public Service in France")); and
- maintaining tariff equalization with continental metropolitan France means that the development of a competitive electricity market is as a matter of fact impossible.

EDF's organization in each of these territories is therefore based on maintaining an integrated structure that guarantees the main part of generation and all supply-demand balance management functions, network operator functions (HTB, HTA and BT) and supplier functions.

In these networks, given the existing imbalance between the MWh generation cost and the sale price at the equalized tariff, EDF's sales activities consist of managing electricity demand, either alone or in partnership with the Environment and Demand-Side Management Agency (Agence de l'Environnement et de la Maîtrise de l'Energie, or "ADEME") and local institutions

Most of the Island Energy Systems, however, have experienced significant growth in their consumption (high rate of demographic growth and/or late technological developments in household equipment). This increase in demand must be met by the creation of new generation plants, which are decided upon by the Minister of Industry within the scope of the Multi-Year Investment Program, either by means of invitations to tender or by authorizing projects developed by private operators. The operators' interest, including EDF, to invest in SEI generation was strengthened by an order taken by the Minister of Industry, on March 23, 2006, setting to 11% the nominal remuneration rate before tax of fixed capital in production investments made in Corsica, overseas department, St Pierre and Miquelon and Mayotte.

#### RECENT EVOLUTIONS AND MID-TERM PROSPECTS

## Projected investments in generation between now and 2015

The ministerial order that defined this Multi-Year Investments Program (*Programmation Pluriannuelle des Investissments*, or "PPI") was taken on July 7, 2006: it gives a figure of the objectives of implementation of centralized means of generation for the SEI of 1,230 MW in 2015. This figure covers the need to upgrade 6 of the 7 main diesel power stations.

On the basis of the strategy adopted, to remain, the leading actor in each of the Island Energy Systems, as regards installed capacity the EDF Group has undertaken:

- a project to upgrade 6 of the 7 main diesel power stations beginning in 2010 in Corsica and in French overseas departments. This project, which will also help satisfy emerging needs, will be conducted by a wholly-owned subsidiary of the Group "EDF Production Electrique Insulaire SAS", created for this purpose in December 2006. The project will provide a total of 900 MW by 2015;
- starting construction of a hydropower station at Rizzanèse, in Corsica.
   This plant, representing an investment of €200 M, will be brought into service in 2012;
- extending the Rivière de l'Est Hydro Power Station on La Réunion. The extension, representing an investment of €20 M, will be brought into service in 2009.

## PROJECTED INVESTMENTS FOR DISTRIBUTION UP BETWEEN NOW AND 2010

Following the passage of Cyclone Gamede over La Réunion (February 2007), followed by Hurricane Dean in Martinique and Guadeloupe (August 2007), EDF has initiated a €40 M program for reconstructing the networks in these overseas departments or improving resistance to tropical storms.

# **6.2.2.4** TARIFFS FOR USING THE PUBLIC ELECTRICITY TRANSMISSION AND DISTRIBUTION NETWORKS (TARIF D'UTILISATION DES RÉSEAUX PUBLICS DE TRANSPORT ET DE DISTRIBUTION D'ÉLECTRICITÉ, OR "TURP")

Pursuant to the French Law n° 2000-108 of February 10, 2000, the tariffs for using the public electricity transmission and distribution networks are adopted jointly by the Ministers of Economy and of Energy upon a proposal from the Energy Regulation Commission (*Commission de Régulation de l'Energie*, or "CRE").

The current Tariffs for Using the Public Electricity Transmission and Distribution, approved on September 23, 2005, by the public authority, are into force since the January 1st, 2006 for an initial two year period. Given the uncertainty relating to the organization of distribution activities within the context of the full opening of the market on July 1, 2007, the CRE believed that the tariff rules should be adjusted again towards the

end of 2007. In October 2007, the CRE opted to extend the tariff for 2008. The CRE started on February 18, 2008 a public consultation (a second one is foreseen during spring) aiming to define the new tariff which will be applied on January 1, 2009.

The Tariffs for Using the Public Electricity Transmission and Distribution Networks are set up in order to cover:

- the cost of transmission and distribution, while integrating the productivity gain targets given by the regulatory authority;
- a financial remuneration equal to the regulated assets base, estimated on January 1st, 2006 to €10,799 million for transmission and to €26,324 million for distribution, multiplied by a fixed remuneration rate corresponding to a nominal rate before tax of 7.25% (instead of 6.5% for the former TURP)

Moreover, the CRE considered it necessary to deploy a mechanism to compensate for the effects of external factors on the income and expenditure of network managers that are beyond their control. The income and expenditure adjustment account ('CRCP') records off-balance sheet, in previously identified headings, all or part of the excess or shortfall of the network manager, then covered by a reduction or an increase in the charges to be recovered through the tariffs for using the public electricity networks over the following five years (see note 31.7 to the consolidated financial statement as of December 31, 2007).

## 6.3

## Presentation of the EDF Group's international activity

In 2007, the EDF Group had a strategy of consolidating its assets portfolio around the business model of an integrated energy company in Europe. Furthermore, in China and the United States it has manifested its growth objective in the nuclear generation domain as an investor and future operator by concluding partnerships with CGNPC in China and the Constellation Energy Group in the United States.

## **6.3.1** Europe

### **EUROPEAN CONTEXT**

The energy market environment in Europe is undergoing a transformation. Proven political willingness, especially in the European Commission, to open up markets has already considerably changed the energy landscape with the following principal effects:

- a complete change in the rules of operation, which have yet to stabilize, of these markets;
- the sensitivity and volatility of energy prices, customary in a commodity market, but amplified by the world energy context; and
- a vision based on national markets, which still continues in most countries due to inadequate interconnections.

Renewal of the fleet of generation facilities is a relatively long-term major imperative, depending on the country: between 500 and 600 GW of new capacities are to be built or renewed before 2030 at the European Union level over the medium to long term, depending on the countries. (source: survey of DG Tren – Trends to 2030 – update 2005). In any event, increasing environmental constraints will have an impact on the composition of the fleets of generation facilities and on price levels.

Significant restructurings of integrated energy groups have happened in 2007.

In this context, the EDF Group's goal is to be a major operator in the development of a fluid energy market in Europe by actively participating in the construction of this new market (interconnections, compliance with EU regulations, etc.).

#### THE GROUP'S AMBITIONS IN EUROPE

The Group's ambition is to create a coherent industrial group with its current main positions in Europe. The Group will review any new opportunity of profitable development, especially in the Benelux countries, on the Iberian peninsula and in the PECO. Thus, Europe is the "core market" of the EDF Group with an integrated upstream-downstream business model, balanced between regulated and deregulated activities. Besides, the Group intends to continue building its gas assets, which are necessary to its ambition of becoming an important European gas operator, in order to secure its offer, to provide its customers with a multi-energy offer and to have competitive means of electricity generation through gas.

This coherent industrial group, to be built from the Group's industrial base and shareholdings, will enable its main European subsidiaries to fully contribute to its strategy.

The Group is implementing operational synergies among its various entities in France and Europe with the following objectives:

- to improve the operational performances by sharing the best practices observed within the Group;
- to have a number of entities on a single network in order to optimize



- the fleet, reduce the costs of peak consumption coverage and to be able to propose an offer to multi-site customers in Europe;
- to use the opportunity of construction projects of generation assets in the various subsidiaries in order to standardize the conception and to group the purchase orders to equipment manufacturer; and
- to coordinate the gas supplies and investments in order to further the Group's ambitions in the gas market.

The table below sets forth the general features of the EDF Group's main subsidiaries and holdings in Europe (as of December 31, 2007):

Company Name	Main Activities	Technical data
Germany		
EnBW	Electricity Generation,	Number of customers: approximately 6 million <sup>(1)</sup>
	Electricity Transmission, Distribution,	Electric Installed capacity: 15.0 GW
	Gas Transmission, Distribution,	Gas activity: 75.2 TWh <sup>(2)</sup>
	Electricity and Gas Sales Services	•
United Kingdom	•	
EDF Energy	Electricity Generation,	Number of customers- accounts: approximately 5.5 million <sup>(1)</sup>
3,	Electricity Distribution,	Electric Installed capacity: 4.9 GW
	Electricity and Gas Sales Services	Gas activity: 39.6 TWh <sup>(2)</sup>
Italy	,	,
Edison	Electricity Generation,	Number of customers: 187,000 customers <sup>(1)</sup>
	Electricity Sales,	Electric Installed capacity: 12.5 GW
	Gas Production, Storage and Sales	Gas activity: 13.8 Gm <sup>3(2)</sup>
Fenice	Electricity Generation,	Electric installed capacity: 328 MW
Terrice	Services, Energy and Environment	Thermal installed capacity: 2,886 MWth <sup>(3)</sup>
Spain	Services, Energy and Environment	mermai installed capacity. 2,000 MWM.
Hispaelec Energia S.A.	Electricity Sales	Number of customers: approximately 50 sites
Elcogas	Electricity Gales	Electric installed capacity: 335 MW
Poland	Electricity derieration	Electric ilistalled capacity. 333 iviv
	Florida, and Host Committee	Florini installad compait a 2F2 MAA/
ECW	Electricity and Heat Generation	Electric installed capacity: 353 MW
		Thermal installed capacity: 1,225 MWth <sup>(3)</sup>
Elektrownia Rybnik S.A. (ERSA)	Electricity Generation	Electric installed capacity: 1,775 MW
ECK	Electricity and Heat Generation	Electric installed capacity: 460 MW
		Thermal installed capacity: 1,258 MWth <sup>(3)</sup>
Kogeneracja	Electricity and Heat Generation	Electric installed capacity: 363 MW
		Thermal installed capacity: 1,059 MWth <sup>(3)</sup>
Zielena Gora	Electricity and Heat Generation	Electric installed capacity: 221 MW
		Thermal installed capacity: 322 MWth <sup>(3)</sup>
Hungary		
BERt	Electricity and Heat Generation	Electric installed capacity: 356 MW
		Thermal installed capacity: 1,471 MWth <sup>(3)</sup>
DÉMÀSZ	Electricity Distribution	Numbers of customers: 770,887
	Electricity Sales	
Slovakia		
SSE	Electricity and Heat Distribution	Number of customers: 699,665
	Electricity, Gas and Heat Sales	
Austria	•	
ESTAG Group	Electricity, Gas and Heat Distribution	Number of customers: 406,459
,	Electricity, Gas and Heat Sales Services	
Switzerland	,,	
Atel Group	Electricity, Generation, Trading and Sales	Electric installed capacity: 3,714 MW
	Electricity Transmission, Distribution Services	Thermal installed capacity: 918 MWth <sup>(3)</sup>
Emosson Chatelôt/Mauvoisin	Hydropower Generation	0.4 TWh made available
Belgium	Tryatopower deficiation	5.1 TVVII IIIdde dvalidbie
EDF Belgium <sup>(4)</sup>	Electricity Generation	Electric installed capacity: 419 MW
EDI DEIGIGITI		Electric installed capacity. 413 IVIVV
	Electricity and Gas Sales Services	

Gross values, not adjusted for percentage of ownership interests (including the minority interests).

- (1) Including gas.
- (2) Gross global gas volumes handled by the Group's companies including plants' internal consumption.
- (3) MWth: thermal MW for cogeneration, as opposed to electric MW.
- (4) EDF Belgium owns 50% of the Tihange 1 nuclear power plant.

For more information on the consolidation method at December 31, 2007, see note 42 in the annex to the consolidated financial statements as of December 31, 2007.

In addition, EDF has a 50% interest in Dalkia International<sup>(23)</sup>, through its subsidiaries and holdings operating in the energy-related services sector (see Section 6.4.1.3 ("Dalkia") below).

#### **6.3.1.1** EDF ENERGY

EDF Energy, a wholly-owned subsidiary of EDF, is an integrated energy company that participates in the generation and distribution of electricity and supply of electricity and gas in the United Kingdom through its Customer, Energy and Networks Branches. In 2007, it was the number one distributor of electricity (by volume of electricity distributed and by regulated asset value) (source: Ofgem) and number 5 ex aequo energy supplier (by TWh sold) in the United Kingdom (source: Cornwall Energy Associates).

EDF Energy is also a significant generator of electricity with a total capacity (excluding PPAs) of 4.9 GW.

In 2007, EDF Energy distributed electricity to over 7.9 million homes and businesses in London and in the east and south-east of England over a network of 181,000 km and it supplied 52.4 TWh of electricity and 28.7 TWh of gas. At the end of 2007, EDF Energy had  $5.5^{24}$  million customer product accounts including residential customers, small and medium enterprises ("SMEs") and major business account holders.

For the year ended December 31 2007, EDF Energy's sales were €8,353 million. EDF Energy employed 13,158 people at the end of December 2007.

The following chart sets forth the key figures for EDF Energy for the last two years:

End of December	2007 <sup>(1)</sup>	2006(1)
Sales (millions of €) <sup>(2)</sup>	8,353	8,319
Electricity	5,667	5,866
Gas	997	889
Other	1,693	1,564
Profit before tax (millions of €) <sup>(2)</sup>	498	593
Electricity (GWh)	52,435	53,462
Gas (GWh)	28,685	25,849
Number of customer accounts (thousands)	5,539	5,497
Employees	13,158	12,319
Networks Regulated Asset Value (billions of £) (end of March)	3.2	3.0
Networks Regulated Asset Value (billions of €) (end of March)	4.4	4.5

<sup>(1)</sup> The exchange rates applied to the balance sheet are £1 per 1.4892 in 2006 and per €1.3636 in 2007 and for the figures in the income statement, 1 per €1.4665 in 2006 and per €1.4550 in 2007.

## 6.3.1.1.1 OVERVIEW OF THE MARKET STRUCTURE IN THE UNITED KINGDOM – PRICE MOVEMENTS

At the end of 2006, GB electricity year ahead base load prices were trading around £33/MWh, with corresponding GB gas prices at 33p/therm. At the end of December 2007, year-ahead prices were £53/MWh and 51p/therm respectively. The increases can be attributed to the market factoring in steep rises in the wider energy commodity market, particularly in the second half of the year.

Year-ahead oil prices rose to \$90.2/bbl. Gas prices averaged £0.30 per therm during 2007, a fall from the year end position in 2006. Year-ahead coal rose from \$68/tonne to around \$117/tonne at the end of the year.

In addition current electricity prices also reflect the EU Emissions Trading Scheme Phase II which began on January 1, 2008, Phase II allowances were trading at €22.23/tonne at December 28, 2007 (equivalent to £15/MWh for coal-generated electricity) whereas the price of Phase I allowances declined in 2007 to a negligible value.

These prices are more volatile than those in France and Germany mainly due to a stronger correlation with gas prices and the limited interconnection capacities compared to those between France and Germany.

Coal prices in the United Kingdom have increased significantly under pressure on freight and increased activity in Asia, reaching US\$127.63 per tonne as of December 31, 2007.

#### **6.3.1.1.2** EDF ENERGY'S ACTIVITIES

### 6.3.1.1.2.1 GENERATION

EDF Energy operates three major generation power plants in the United Kingdom with a total generation capacity of 4.9 GW, namely:

- Sutton Bridge located in Lincolnshire. Sutton Bridge is a Combined Cycle Gas Turbine ("CCGT") power plant with a capacity of 803 MW. It was commissioned in May 1999.
- Cottam located in Nottinghamshire. Cottam is a coal-fired power plant with a capacity of 2,008 MW generated by four units. The final unit was commissioned in 1970.
- West Burton located in Nottinghamshire. West Burton is a coal-fired power plant consisting of four coal-fired units and two 20 MW OCGTs, with a total capacity of 2,052 MW. The final unit was commissioned in 1970

<sup>(2)</sup> EDF Energy contributions to EDF consolidated financial statements.

<sup>&</sup>lt;sup>23</sup> Excluding indirect holding of EDF through Véolia Environnement.

<sup>&</sup>lt;sup>24</sup> A customer can have up to two customer accounts, one for electricity and one for gas.



EDF Energy also holds interests in other generation activities, including combined heat and power plants in London and wind farm schemes in north-east and eastern England.

EDF Energy's generation portfolio is diversified between gas-fired and coal-fired power plants which can undertake either base load or cycling duties. Overall, in 2007, it generated 25.5 TWh of electricity for sales. The output from EDF Energy's generation plants broadly covers the customer demand from EDF Energy's SME and residential customers, while demand from large business customers whose consumption is measured on a half-hourly basis is covered back to back through wholesale market purchases.

### Fuel and energy purchasing and risk management

#### General principles

EDF Energy buys and sells residual power and purchases gas, coal and other required commodities on the wholesale markets to fulfill the needs of its generating plants and EDF Energy's customers.

The Company is adopting a risk management strategy which differs according to customer, as follows:

- customers whose consumption is measured and recorded every half-hour; and
- other customers, especially residential customers and SME.

For residential customers and SME, the risk hedging strategy implemented by EDF Energy entails determining a minimum exposure to the risk of variations in energy costs on wholesale markets and sale prices compared to competition. Once this exposure has been determined, maximum and minimum hedging levels and limits on risk management are set and provide the basis for the supply strategy for all raw materials (coal, gas, power, fuel/gas oil and carbon).

For customers whose consumption is measured and recorded every half-hour, the risk management strategy is to hedge energy sales contracts back to back through forward purchasing agreements as soon as practicable.

#### Electricity provision

Over and above its own generation, EDF Energy buys electricity through:

- long-term purchase contracts with Barking (in London) and Teesside CCGT (in north-east England) power stations and with Scottish and Southern Energy with the first of these expiring in 2008. These electricity purchase contracts represented approximately 5 TWh of electricity in the year 2007;
- contracts with generators who are connected directly to distribution networks, without the need for the transmission network. These are mainly electricity generators using renewable energy sources. Purchase of generation from these sources allows EDF Energy to provide itself with its own electricity as close as possible to where the demand for the electricity is required, thus reducing its transmission costs. EDF Energy purchased approximately 2.3 TWh in the year 2007 from this market; and
- wholesale purchase contracts based on quantities and variable periods, designed to meet EDF Energy's policy within the bounds of risk parameters set out in advance. EDF Energy purchased approximately 23.4 TWh in the year 2007 by this method.

In distributing the electricity generated and purchased, losses of approximately 3.8 TWh per year were incurred.

#### Gas and coal provision

Gas procurement, both for end-users and for the Sutton Bridge power plant (39.6 TWh), relies on a contract portfolio that is diversified in terms of types of contract, terms and conditions and counterparties.

Purchases of coal are based on generation forecasts and coal stock target levels. The EDF Energy contract portfolio is drawn up for approximately 40% of coal from the United Kingdom and 60% from international sources. In 2007 and early 2008, EDF Energy entered into various coal provision contracts with indigenous coal producers at a price that is lower than the market price for imported coal.

#### Partnership with EDF Trading

During 2007 it was decided to further strengthen the links between EDF Energy and EDF Trading through a partnership.

This partnership aims at allowing the appropriate entity to manage in the most efficient way the differents risks related to market exposure In addition, this will allow in particular:

- To present a single face to the market;
- To eliminate duplication of activities;
- To clarify liabilities and responsibilities.

In order to maintain the entirety and durability of the business in United Kingdom and to maximize the assets and customers value, EDF Energy will maintain a direct contact with the large companies and will remain responsible for optimizing its power plants and managing its relationship with national coal producers.

EDF Trading will have to create value by optimizing the assets time value (extrinsic value), by managing price risks and by optimizing its assets portfolio against the market.

#### **UK Government Energy Market Review**

On July 11, 2006 the UK government announced the conclusions of its Energy Review. The major energy challenges are stated to be carbon emissions and security of supply. Without further action by the government carbon emissions are forecast to be at the same level in 2050 as they were in 1990, whereas the government has previously accepted the objective of reducing them by 60%. Regarding security of supply, the government forecasts 80-90% dependence on imported gas by 2020, compared with near self-sufficiency in 2005.

A key conclusion to the review is that the government is committed to there being a continuing carbon price signal which investors can take into account when making decisions. The government aims to achieve this through negotiating a stronger EU Emissions Trading Scheme (ETS) post 2012. At the same time they will keep open the option of reinforcing ETS through other measures if necessary.

Action on the supply side is particularly focused on renewables and nuclear. Currently electricity suppliers will have to source 15% of their supplies from renewables by 2015. The government wants to raise this to 20% by 2020, but at the same time to avoid this increase imposing extra cost on customers.

The government stated in the report that it wished to see replacement nuclear power stations but there will be no subsidies or special inducements to achieve this. The government launched in this report a consultation with a view to creating a policy framework for new nuclear build by means of an Energy White Paper early in 2007.

Following the publication of the Energy Review conclusions, Greenpeace launched a legal challenge questioning whether the Government had consulted fully before the decision to allow private investors to invest in new nuclear was taken. The court found in favour of Greenpeace and the Government launched a new consultation into new nuclear in May 2007 alongside the Energy White Paper, which turned the conclusions of the Energy Review into Government policy. The Government stated that their preliminary view was that it is in the public interest to allow private investor to invest in new nuclear.

Following the nuclear consultation, which closed on the 10th October 2007, the Government published on the 10th January 2008 a Nuclear White Paper which stated "The Government believes it is in the public interest that new nuclear power stations should have a role to play in this country's future energy mix alongside other low-carbon sources; that it would be in the public interest to allow energy companies the option of investing in new nuclear power stations; and that the Government should take active steps to open up the way to the construction of new nuclear power stations. It will be for energy companies to fund, develop and build new nuclear power stations in the UK, including meeting the full costs of decommissioning and their full share of waste management costs".

#### Generation capacity development

To reinforce its vertical integration strategy despite the decreasing volumes gained through long-term contracts and the potential reduction of volumes produced by coal-fired power plants due to environmental constraints, EDF Energy is exploring opportunities to enter into long-term purchasing contracts, acquire stakes in power plant generation capacity, purchase additional generation resources or create new generation capacity on its existing sites.

#### Combined Cycle Gas Turbine

In order to meet its ambition of growth and sustainable development (EDF Energy's objective is to reduce the intensity of carbon dioxide emissions from its electricity production by 60% by 2020), in 2005 EDF Energy carried out an extensive review of its future energy generating requirements. Progressively building a vertically integrated portfolio, robust with respect to the risk of lack of liquidity of the wholesale market, is now the aim.

This review confirmed the requirement for a 1,300 MW Combined Cycle Gas Turbine Station (CCGT), to commence generation by 2011.

As a result, the West Burton II project, which was granted consent under Section 36 of the Electricity Act on October 30, 2007, is to build a CCGT with a net capacity of 1,311 MW, comprising three 437 MW multi-shaft units. The new plant will be designed to an EDF Group design and will be managed by EDF Engineering and Edison in the role of Managing Contractor. The procurement strategy will adopt a Group approach, providing synergy benefits through reduced engineering costs and procurement savings from economies of scale.

EDF Energy is looking into the opportunity to invest in a second CCGT of a similar size to be operational during the course of 2013.

#### Renewables

EDF Energy is planning to increase its stake in renewable generation plant to 1,000 MW (onshore wind equivalent) in the next decade.

## New Nuclear

A 'Nuclear Project' team was established in London in 2006 to make possible investment in new nuclear capacity in the UK, drawing on the unrivalled expertise of the Company. Any such investment will help maintain security of supply, help keep the economy growing and help address glo-

bal warming. The team has grown to over 11 full time staff in the UK, and will continue to do so as the project develops.

EDF Group has been actively engaged in the consultation, and is looking into considering the possibility of building and operating up to 5 new nuclear power stations, either on its own or in partnership, subject to the implementation of an appropriate policy and regulatory environment described in the Government's white paper.

EDF Group has said that it wishes to deploy EPR technology. This is the same technology already employed at the new nuclear power station being constructed by EDF at Flamanville, in France. This strategy will enable the efficiencies that come with standardisation of design in the construction and operation of a series of plants. In the second half of 2007 EDF Energy, with Areva, initiated the licensing process. This process is scheduled to last for three and a half year.

As part of its strategy, the EDF Group has contacts with all British actors to achieve its goal to be involved in the development of nuclear energy in the United Kingdom.

It is anticipated that the first new nuclear plant could be operational by the end of 2017. A final investment decision by EDF is expected around 2010-2011.

#### 6.3.1.1.2.2 SUPPLY

UK energy market liberalisation was launched as early as 1986 and as market liberalisation started early, the market in the United Kingdom is deemed one of the most competitive markets across Europe.

Churn rates in the UK are persistently significantly high (between 18% and 20% for gas and electricity). 1 customer out of 2 has switched once since market opening, unrivalled statistics for Europe.

Commodity prices are very volatile and can easily double or plummet within a year. Retail tariffs follow the overall trend but limit short term volatility. As a result a hedging strategy that efficiently smoothes market volatility is a key competitive factor for all suppliers.

EDF Energy decreased their sale prices for residential gas customers by 10.2% on June 15, 2007. However, due to market conditions, on January 18, 2008 EDF Energy raised its prices by 7.9% for electricity and 12.9% for gas.

During 2007 EDF Energy stepped up the nationwide promotion of the EDF Energy brand, an increasingly well-known replacement of the legacy supply brands. As of December 31, 2007, EDF Energy had 4.1 million customers and 5.5 million customer accounts. It supplied 19.2 TWh of electricity to 3.5 million residential accounts, 271,000 SME accounts and 33.2 TWh of electricity to 191,000 major business accounts. It also had 1.6 million gas customer accounts to whom 28.7 TWh of gas were sold in 2007. While EDF Energy's residential and SME customers are primarily located in London, the south-east and the south-west of England, its major business customers have sites throughout the country.

EDF Energy has a growing exposure on gas through increased retail, I&C demand and CCGT generation. It is therefore, with EDF Group, looking into investment opportunities in gas storage. In the next few years it aims at stabilizing its market share while increasing its profitability and then renewing customer growth.

#### 6.3.1.1.2.3 DISTRIBUTION

The Networks Branch of EDF Energy operates the three contiguous licen-



sed distribution networks in London, the east of England, and the southeast of England along with a number of private networks and infrastructure projects. As required by Ofgem in its regulation of Distribution Network Operators ("DNOs"), the Networks Branch is managed and operated as a separate legal entity from the rest of the EDF Energy group and its financing is ring-fenced so as not to restrain or hinder competition or create distortions in competition in relation to the supply of electricity or gas, electricity generation or the transmission of gas.

#### **Public networks**

EDF Energy's network covers over 29,000 km² and distributes 87 TWh of electricity annually through 47,500 km of overhead wires and 133,900 km of underground cables. EDF Energy is the largest distributor of electricity (by volume and regulated asset value) in the United Kingdom, distributing electricity to 7.9 million customers.

Each distribution network operates under very different operating conditions with a concentrated urban network in London and a mix of rural and urban networks in the South and East of England. EDF Energy invested over £465 million in its network during 2007 on asset replacement, reinforcement and extension. The network performance is stronger in London in terms of continuity of supply due to the fact its network is almost entirely underground and is less affected by the extremes of weather, whereas a proportion of the network serving the other regions is above ground.

The networks business generates income through Distribution Use of System ("DuoS") charges levied against the supply companies that the end customer has a contract with. The charges levied by EDF Energy's DNOs are among the lowest in the United Kingdom.

#### **Distribution price controls**

Key issues for the review conducted by Ofgem during 2005 included the level of capital expenditure for the current 2005-2010 five-year period commencing April 1, 2005, the efficient level of operating expenditure, further productivity improvements to be expected and the remuneration of the asset base. New prices came into force on April 1, 2005. The outcome of the review was to allow for an increase in capital expenditure of £2.2bn over the regulatory period but reduced allowed operating expenses, following which the Networks Branch initiated a significant cost reduction programme. This tariff review is considered, on the whole, to be satisfactory by EDF Energy.

EDF Energy is on target to deliver the agreed capital plan and has made significant progress towards the cost reduction programme. Initiatives include the introduction of a new organisational model leading to more effective resource planning, reduced traveling time and a reduction in properties occupied.

## **Underground cables**

Like all distributors in the United Kingdom, EDF Energy's networks contain Fluid Filled Cables ("FFC"). These cables can leak and pollute ground soil. The Environment Agency, Ofgem and distributors have had discussions concerning this problem.

Ofgem has suggested that during the current price control period (2005-2010), DNOs prepare more robust leakage management strategies and, as a better understanding of the necessity to replace FFC is developed, discussions will continue with the DNOs regarding expenditure profiles. Ofgem confirms that, if it is necessary to incur significantly higher levels of expenditure than those allowed during the current price control period, it will seek to agree on the treatment of such expenditure with DNOs in advance.

Ofgem's general view is that the price control mechanisms for the current 2005-2010 period allow for a significant level of replacement expenditure. This amounts to £58 million of capital expenditure for EDF Energy which will be spent primarily replacing FFC where a problem has occurred or where replacement is necessary to prevent such a problem from occurring.

EDF Energy has conformed to current best practice in developing its leak management strategy whilst monitoring and analysing leakage rates. Most of the FFC owned by EDF Energy have now been mapped to the Environment Agency's environmental sensitivity map, which enables the business to understand where FFCs are close to, or cross, a high sensitivity area. This, together with FFC condition enables the business to determine replacement policy.

Operational techniques have also developed alongside the longer-term strategic view. The business has developed a new leak location technique over several years. This has been successfully field tested during 2007 and will be fully implemented in 2008. The technique is delivering benefits of more accurate leak detection and has given EDF Energy an improved and more cost effective operational response.

## Competition Act and license compliance investigations involving EDF Energy

In January 2007, following an investigation into EDF Energy's conduct regarding the proposed withdrawal of electricity meter reading and related services to non-affiliated electricity suppliers, Ofgem found that EDF Energy had not abused its dominant position (which would have been an infringement of the Chapter II prohibition of the Competition Act 1998 and Article 82 of the EC Treaty).

During 2007, Ofgem also investigated EDF Energy's three distribution licensees regarding their respective compliance with Standard License Condition 4C, which requires the licensee not to discriminate in the provision of non-contestable connection services. Ofgem found no evidence of breach and formerly closed its investigation in July 2007.

## 6.3.1.1.2.4 PRIVATE NETWORKS AND PRIVATE FINANCE INITIATIVES/PUBLIC PRIVATE PARTNERSHIPS

EDF Energy provides a wide range of commercial and technical solutions for infrastructure projects and a number of PFI/PPP asset infrastructure and electrical distribution networks projects.

The basic premise for PFI and PPP contracts is that a private-sector company or consortium finances, constructs/refurbishes and then manages a public asset over a long-term contract, typically 25 to 30 years. While the private sector funds the initial capital-intensive construction/refurbishment phase, it is subsequently reimbursed for the capital, finance and maintenance costs by a relatively flat monthly payment from the owner of the public assets throughout the period of the contract.

EDF Energy has built up a portfolio of contracts through successfully winning PFI/PPP asset infrastructure and electrical distribution networks projects such as:

- the London airports of Heathrow, Gatwick and Stansted;
- the Docklands Light Railway Lewisham Extension;
- several commercial buildings in the London Docklands;
- public lighting for Dorset County Council and the London Boroughs of Islington and Ealing (currently in the process of being sold, see below).

EDF Energy also has a number of joint venture investment projects:

- an 80% interest in the Powerlink consortium. This project, which was won in 1998, is a 30-year contract to maintain and upgrade the high voltage electrical distribution network for the London Underground system. Annual sales from this contract is approximately £84 million;
- a 49.9% interest in MUJV Limited, a joint venture formed between EDF Energy and Thames Water Services to design and lay all water, wastewater, gas and electricity pipes/cables to the new buildings that Aspire Defence is building for the Ministry of Defence.

EDF Energy's contracting business has several major contracts with customers including Network Rail (Power Supply Upgrade), Pfizer, London Underground and Islington Highway Lighting.

#### **Street Lighting**

EDF Energy runs three Street Lighting PFI projects; Dorset, Ealing and Islington. The PFI projects require the delivery of capital replacement works (in the first 5 years) and maintenance and renewal over a 25 year period. Strategic reviews, following the decision to integrate Networks and Development branches into a single organisation, resulted in the decision to concentrate on core business and sell these projects. Preferred bidders were selected in November 2007. Deal closure is expected early in 2008.

#### Metronet

Metronet is a 30-year Public-Private Partnership (PPP) contract with London Underground to maintain, renew and upgrade two third of London Underground Network's Infrastructure through its two Infracos. Operation of Metronet consortium commenced In April 2003.

EDF Energy's interests in Metronet are:

- a 20% interest in the Metronet Consortium, which holds two of the three London Underground Infrastructure PFI concessions;
- a 25% interest in Metronet Alliance, which manages the delivery of station modernisations and refurbishments as well as the maintenance, remediation and development of civil assets.

As Metronet was not able to renegotiate a sufficient share of anticipated cost overruns on the contracts in place, that were identified during a detailed cost review, the Directors of Metronet placed both Metronet Rail SSL Holdings Limited and Metronet Rail BCV Holdings Limited into administration on 18 July 2007, the mandate of the administrator having been extended on January 18, 2008.

In addition, on 23 July 2007, Trans4m Limited, one of the members of the Metronet Consortium gave notice to London Underground to withdraw from the contract.

The termination came into effect on 30th August 2007. At the request of London Underground and Metronet, EDF Energy entered into a Secondment Agreement with Metronet with effect from 30th August 2007 for a period of 3 months to second those EDF Energy staff who had been involved in the project to Metronet. Negotiations are still ongoing between the various parties to terminate all contractual links and liabilities.

## 6.3.1.1.2.5 LONDON 2012

During 2007 EDF Energy entered into an arrangement on behalf of the whole EDF Group to become a tier one partner of London 2012.

EDF Energy is the Official Utility Services Partner as well as a Sustainability Partner. It was the first Sustainability partner to be announced and the

second tier one partner to be announced after Lloyds TSB. At the end of 2007 there were three tier one partners with Adidas also becoming a partner.

Under this partnership EDF Energy will supply energy from renewable sources for the London 2012 games from renewable sources. EDF Energy will also provide a low carbon fuel for the cauldron. Sustainability will continue to be a central theme in the activation of the partnership.

#### 6.3.1.1.3 FINANCING - PENSIONS

#### **FINANCING**

The net debt of EDF Energy and its subsidiaries was £4.20 billion at December 31, 2007, the average cost of servicing this debt has been reduced since 2002 to 6.3% in December 2007. Liquidity is maintained by committed credit lines totaling £2.05 billion at December 2007. These comprise a committed line of £1.80 billion provided by EDF, of which £1.70 billion was drawn at December 2007 and an undrawn syndicate credit line of £250 million. Both lines are subject to compliance with certain covenants and at present, EDF Energy complies with these covenants

Most cash flows are denominated in pounds sterling. Cash flows denominated in other currencies are immediately subject to hedging operations to limit exposure to exchange rate fluctuations.

#### **PENSION SCHEMES**

EDF Energy sponsors two pension schemes:

- The EDF Energy Pension Scheme ("EEPS") which was established in March 2004 and includes a number of legacy pension schemes from London Electricity and Seeboard. Membership of EEPS is open to all employees
- The EDF Energy Group of the Electricity Supply Pension Scheme ("ESPS") which was created in September 2005 as a result of the merger of the London Electricity and Seeboard groups of the ESPS. ESPS is closed to new members.

Both EEPS and ESPS are final salary pension arrangements and they both undertook formal triennial actuarial valuations as at March 31, 2007 in line with the new scheme specific UK funding requirements. This showed a total deficit of £127m. To repair this deficit, EDF Energy agreed a recovery plan in which it would make an additional payments over the period April 1, 2007 to March 31, 2015 (with the deficit payments front loaded during the first three years).

From a Company accounting perspective the funding position for each pension scheme is as follows:

- ESPS has improved over the period 2004 to 2007 due to improvements in equity markets and the deficit repair contributions of £126m paid by EDF Energy between April 2005 and December 2007. At the end of 2007 ESPS was in deficit by £246 million vs. £298 million at December 31, 2006.
- EEPS has grown in terms of members, assets and liabilities. The funding position has not changed greatly over the period 2004 to 2007.
   At the end of 2007 EEPS was in deficit by £11 million vs. £13 million at December 31, 2006.

#### **6.3.1.2** GERMANY - ENBW

As of the date of this Document de Référence, EDF owned 45.01% of EnBW's share capital and, excluding treasury shares, which have no voting rights, 46.07% of EnBW's voting rights.



In 2007, the EnBW group recorded sales of €14.7 billion (as published by EnBW) and EBITDA<sup>25</sup> of €2.3 billion (source: EnBW 2007 annual report). EnBW was consolidated by proportional integration at 46.07% in the consolidated financial statements of the EDF Group as of December 31, 2007.

EnBW, whose shares are traded on the Frankfurt stock exchange and the Stuttgart stock exchange, publishes certain information (including its annual report) available on its website at www.enbw.com. EnBW ranks third among German energy companies after E.ON and RWE in terms of sales and number of customers. Furthermore, it is the top electricity company in its historical development area, Baden-Württemberg. Its business includes generation, transmission, distribution, supply and electricity trading. EnBW also operates in the gas fields (transmission, distribution, supply and trading), energy-related services, waste management and water. EnBW holds equity participations in several local utilities in Baden-Württemberg. Elsewhere in Germany, EnBW also holds interests in local utilities and has developed, on a national scale, an independent electricity retailer, Yello, the electricity supplier in Germany with the highest number of customers outside its historical area.

## 6.3.1.2.1 Strategic interest of EDF's stake in EnBW

EDF's stake in EnBW followed a long collaboration between the two companies, especially in the technical field and that of electricity exchanges with Baden-Württemberg. EnBW has a strong presence in this region, which is also one of the most developed in Europe, with a population of 11 million and dynamic companies focused on exports.

EnBW's Yello brand gives the company a strong marketing advantage with its residential and small business customer base, which has been open to competition since 1998, and an expertise which EDF may use to its advantage. EDF's holding in EnBW also allows it to service major multi-site customers of both companies.

EnBW's equity holdings in the "Stadtwerke" (see Section 6.3.1.2.3.1 ("Electricity business – Supply")) in Baden-Württemberg, as well as in Düsseldorf and in Saxony in eastern Germany allow it to operate outside of its historical area.

As well, EnBW's gas business, with sales of €2.5 billion (as reported by EnBW, *source*: EnBW 2007 annual report) in the leading gas market in Europe, is a major advantage for the EDF Group's gas strategy.

Moreover, EDF estimates that a presence in Germany, the largest market in Europe in terms of numbers of customers and electricity consumed, is essential from the perspective of a European energy market.

The EDF Group's strategic interest in Germany is also based on the size of the "German" marketplace encompassing Germany, Austria and, to a certain extent, Switzerland, which gives access to almost 90 million consumers. This regional marketplace may be considered a single market as interconnections between the countries concerned are highly developed and transmission lines are not saturated, which leads to flexibility in exchanges. Wholesale prices for different products (base-load, peak-load and forward spot markets) are also globally the same in the three countries. This network occupies a key position in Europe and is likely in the medium term to create, with France and the Benelux countries, a "regional market", if network congestion is alleviated.

The interest of a presence in Germany is reinforced by growth opportunities in the countries of central and eastern Europe since the enlarge-

25 EnBW'S 2006 annual report defines EBITDA as "earnings before interest, taxes, depreciation and amortization". ment of the European Union. EnBW is present in these markets through a number of mainly minority shareholdings in electricity generation and distribution companies, especially in Switzerland, Austria, Poland and Hungary, and intends to develop in central and eastern Europe.

Finally, the geographical proximity of EDF and EnBW, the similarity of the sectors in which they operate – and especially the large proportion of nuclear energy generated by the two companies – open the path to the sharing of expertise and the realization of synergies.

#### 6.3.1.2.2 DETAIL OF EDF'S HOLDING IN ENBW

#### **FNBW SHARFHOLDERS**

As of the date of this *Document de Référence*, EDF held 45.01% of EnBW's share capital and, excluding treasury shares that have no voting rights, 46.07% of EnBW's voting rights. With EDF, the other main EnBW shareholder is OEW, a group of local authorities in Baden-Württemberg, which held, like EDF, 45.01% of EnBW's share capital and 46.07% of EnBW's voting rights as of the date of this *Document de Référence*. EDF and OEW entered into a shareholders' agreement that gives them joint control of the company (see below).

As of the date of this *Document de Référence*, the remaining balance of EnBW's share capital is held as follows: 5.89% by different municipalities and municipality federations in Baden-Württemberg, 1.79% by the general public and 2.30% as treasury stock by EnBW (source: EnBW 2007 annual report).

#### SHAREHOLDERS' AGREEMENT

EDF and OEW entered into a shareholders' agreement on July 26, 2000, under the terms of which they agreed to hold, jointly and in parity, the majority of EnBW's share capital and to control the company jointly. The agreement provides that EnBW must be EDF's exclusive vehicle in Germany for any investment relating to the electricity, gas and waste businesses, unless OEW or EnBW declines the proposed investment. Furthermore, the agreement distinguishes between two categories of shares:

- shares subject to the shareholders' agreement, which represent 50.01% of EnBW's share capital (25.005% for each party) (the "Shares subject to the Shareholder's Agreement"); and
- shares not subject to the shareholders' agreement, which represent the balance of the holdings of each party.

With regard to Shares subject to the Shareholder's Agreement, the agreement provides that since January 1, 2005 and until December 31, 2011, OEW is required to obtain EDF's prior agreement to sell its Shares subject to the Shareholder's Agreement to a third party that is not part of OEW

However, OEW has:

• a put option against EDF for some or all of its Shares subject to the Shareholder's Agreement (25.005%), which may be exercised at any time between January 1, 2005 and December 31, 2011 at a price of €37.14 per share. The EDF Group has recorded an amount of €2,322 million in its off-balance sheet commitments at December 31, 2007 (see note 24.5 to the consolidated financial statements as of December 31, 2007);

- a preemption right on Shares subject to the Shareholder's Agreement held by EDF; and
- the right to oppose a sale by EDF of its Shares subject to the Shareholder's Agreement if the third party buyer is not ready to purchase OEW's shares at the same price (tag-along clause).

Regarding shares which are not subject to the Shareholder's Agreement, the agreement provides for a reciprocal preemption right mechanism.

EDF and OEW are required to uniformly exercise their voting rights at Shareholders' Meetings and to adopt a uniform position on decisions examined by the supervisory board and are also required to adopt a common position on any decision concerning EnBW that is considered important by at least one party and to uphold it in respect of the company.

To this end, EDF and OEW have formed, in accordance with the stipulations of the shareholders' agreement, a shareholders' committee (led by EDF) allowing them to adopt common positions. However, EDF has a decisive vote for decisions relating to the implementation of the EnBW's medium term development plan ("plan de développement à moyen terme") as drawn up by the parties.

Out of the 20 members on the supervisory board, EDF has four representatives and OEW has three (including the Chairman, who has the decisive vote). Two members were appointed by the Shareholders' Meeting of EnBW (one suggested by OEW and the other by EDF), ten members were appointed by EnBW's employees and the remaining member is appointed jointly by EDF and OEW.

One of the members of EnBW's Executive Board, currently composed of six members, is appointed by EDF.

The agreement's earliest expiry date is December 31, 2011, but the agreement will remain in force for as long as EDF and OEW own: jointly, the majority of the share capital; and individually, at least 17% of the share capital.

#### OTHER SHAREHOLDERS' AGREEMENTS

OEW had a put option against EDF for some or all of the shares it purchased from Deutsche Bank and HSBC Trinkhaus & Burkhardt KgaA on January 28, 2005 (5.94% of EnBW's share capital). This option was exercisable at any time from January 28, 2005 to November 30, 2006, but was not exercised by OEW. From December 1, 2006 until December 31, 2011, in the event that OEW sells the aforementioned shares to a third party, EDF will have a right of preemption.

#### **EVOLUTION OF ENBW SHAREHOLDING**

For EDF, an ongoing quality partnership with OEW is a major objective. On the occasion of its return to parity with EDF in the capital of EnBW in April 2005, OEW expressed its objective of holding its shares until at least 2011. However, this situation could change before 2011 as OEW may exercise its sale option relating to Shares subject to the Shareholders' Agreement before this date.

#### 6.3.1.2.3 DETAIL OF ENBW'S BUSINESS

The table below sets forth key figures for the EnBW group for the last two financial years (source: EnBW 2007 annual report):

	Financial Year as of December 31, 2006	Financial Year as of December 31, 2007
Sales (€ billions) <sup>(1)</sup>	13.22	14.71
Of which electricity	9.64	11.54
Of which gas	2.76	2.48
Electricity sales (TWh) <sup>(2)</sup>	119.4	139.5
Gas sales (TWh)	83.5	75.2
Energy customers (millions)	6	6
Employees	21,148	20,265

<sup>(1)</sup> Net sales, after deduction of taxes on electricity and gas.

<sup>(2)</sup> Includes sales of electricity by companies where EnBW has (i) fully consolidated majority holdings for which the volume of sales is taken into account at 100%, and (ii) proportionally consolidated minority holdings for which the volume of sales is taken into account according to the percentage of the stake.



#### 6.3.1.2.3.1 ELECTRICITY BUSINESSES

#### Generation

In 2007, sales of electricity by the EnBW group (including the net volumes traded and all holdings) amounted to 139.5 TWh. Its installed capacity was approximately 15,000 MW and is broken down as follows:

(MW)*	Capacities
Nuclear (including EDF contracts)	4,842
Classical Fossil-fired	6,620
Hydropower	3,415
Other renewable energies	86
TOTAL	14,963

<sup>\*</sup> Gross data, EnBW group consolidated figures including participations.

(Source: EnBW 2007 annual report)

EnBW's generation assets in Germany are mainly located in Baden-Württemberg. They are characterized by their well balanced and relatively low carbon dioxide emissions generation mix, compared to other energy producers in Germany. Baseload generation is provided by nuclear power and hydropower, mid-merit generation is provided by coal-fired power plants and peak generation is provided by gas-and oil-fired power plants, as well as pumping stations. Overall, fossil-fired and hydropower means

intended to meet peak demand are adequate, even allowing peak energy to be sold on the market

The following table sets forth electricity supplies, of a total of 139.5 TWh, by type of primary energy used, obtained on the basis of the EnBW group's consolidated data, including subsidiaries:

Coal, gas, oil	16%
Nuclear energy	27%
Hydropower and other renewable energies (*)	17%
Others (**)	40%

<sup>\*</sup> According to paragraph 42 of the German Law of July 7, 2005 concerning electricity and gas.

(Source: EnBW 2007 annual report)

Through its own generation, long-term supply contracts and its holdings in power plants, EnBW satisfies approximately 52% of the EnBW group's requirements, *i.e.*, 73.5 TWh produced out of 139.5 TWh sold in 2007 (Source: EnBW 2007 annual report).

## Investments in production capacity

EnBW intends to invest in the renewal and the improvement of its capacity to produce electricity.

In December 2006, EnBW thus decided to go ahead with the construction of coal-fired power plant with a gross capacity exceeding 900 MW in Karlsruhe. The investment amounted to approximately one billion euros. Finally, the study for the construction of a gas-fired power plant in Karlsruhe continues.

EnBW also entered into a supply agreement for a 20-year period too, with the STEAG generator (located in the Ruhr region), which, as from 2010, will give to EnBW a generation capacity of 250 MW.

Extension projects for hydropower sites have been developed (for example, hydropower plant extension plan for an installed capacity of 26 MW to 100 MW on the Rheinfelden site, which will be operational in 2010). EnBW also plans to strengthen its investments in other renewable energies.

Nuclear power represents 32% of EnBW's installed capacity (which includes power supplied by EDF under energy supply contracts). If the expected exit from nuclear power were to occur, this would force EnBW to replace approximately 4,450 MW of installed capacity, excluding EDF contracts, by 2012.

The schedule for closing EnBW's nuclear power plants is set forth in the table below:

Inctalled

Nuclear Plant	Commissioning	Capacity (MW)	Forecast Closure
Neckarwestheim 1	1976	633 <sup>(*)</sup>	2010(**)
Philippsburg 1	1980	890	2012
Philippsburg 2	1985	1,392	2018
Neckarwestheim 2	1989	1,096(*)	2022(**)

<sup>\*</sup> Corresponds to the EnBW quota in the power plant.

<sup>\*\*</sup> Undetermined energy source, most of this volume being provided by trading.

<sup>\*\*</sup> This calendar does not take into account the prolongation of the lifespan of the first unit at the Neckarwestheim power plant requested by EnBW at the end of 2006.

The nuclear plant of Obrigheim (net power: 340 MW) has been shut down on May 11, 2005 in view of its future dismantling.

Future costs of eliminating irradiated fuels and operational waste as well as the decommissioning and dismantling of the nuclear power plants are estimated by EnBW at €4,606 million on a discounted basis at the nominal rate of 5.5%, which is the amount provisioned in EnBW's accounts as of December 31, 2007. These provisions are calculated on the basis of regulatory obligations and provisions for operating licenses.

The President Minister of the Land of Baden-Württemberg repeatedly took a position in support of the prolongation of nuclear power, particularly of the Neckarwestheim 1 plant. In this context, EnBW also declared that it supported the idea of an update on the consensus relating to the end of the nuclear power, and at the end of 2006 filed an official request for authorization to transfer production volumes from unit 2 to unit 1 of the Neckarwestheim power plant.

#### Supply

In 2007, EnBW sold 139.5 TWh of electricity (including trading business and participations) to 6 million customers (source: EnBW 2007 annual report).

The EnBW group markets electricity through its VSG subsidiary (*EnBW Vertriebs- und Servicegesellschaft GmbH*, wholly-owned), ODR (*EnBW Ostwürttemberg DonauRies AG*, 99.72%-owned) and ED (*Energiedienst Holding AG*, a 75.97%-owned subsidiary, operating in Baden-Württemberg and Switzerland) (source: EnBW 2007 annual report). EnBW also markets through several majority holdings, including *Energie Sachsen Ost GmbH*, ENSO in Land Sachsen (64.84%-owned at the date of this *Document de Référence*) and Stadtwerke Düsseldorf in North Rhineland Westphalie (54.95%).

EnBW has a 15.07% stake in MVV (Mannheimer Verkehrs-und Versorgungsbetriebe), which is a major electricity supplier in the Mannheim region. EnBW has no significant influence on the company (EnBW is not represented on its supervisory board). MVV is not a direct or indirect supply channel for EnBW.

Outside Baden-Württemberg, supply to residential and small business customers are mainly provided by the company Yello Strom GmbH. Yello has over 1.4 million customers throughout the German market (source: Yello website).

Establishing the brand was an expensive process with high fixed costs and low selling prices, but, since 2004, Yello has made a recorded profit before tax due to a significant reduction in its costs and to the regionalization of its tariffs.

In September 2007, Yello entered the Swedish market to pursue the development of the brand.

Since the beginning of 2007, there is an upgrading of the competition on the German electricity market with the arrival of new competitors on the B2C (business to consumer) market and competitive offers of the German major competitors on the B2B market (business to business).

In order to face this competition, EnBW in engaged in a multi-brand approach: on the B2C with the EnBW and Yello brands, together with Naturenergie (the domestic supply brand for the energy produced from renewable energies). On the B2B market, EnBW is active with

the EnBW and Watt (subsidiary specialized in the intermediary and small accounts without Baden-Württemberg) brands.

Moreover, EnBW pursue its strategy to propose different services in order to retain and gain new clients. In this context, EnBW and Yello launched a pilot project of intelligent meters on the market B2C allowing to follow the consumption of electricity on Internet and opening propects of new product and service development.

#### Transmission - Distribution

EnBW manages one of the four balance areas in Germany and is thus the only electricity transmission system operator in Baden-Württemberg. In its area, EnBW is responsible for providing stability and managing the 380/220 kV very high voltage transmission network, in addition to interconnections with other networks.

EnBW owns the majority of the high and medium voltage network (110 kV to 20 kV) in its historical area and is also very active in distribution (20 kV to 400 V). EnBW has eight regional centers that operate distribution networks in Baden-Württemberg under concession agreements. EnBW has entered into more than 1,000 concession agreements, including approximately 750 agreements directly with municipalities, with the balance entered into indirectly through subsidiaries or holdings.

EnBW also holds approximately 50 stakes in *Stadtwerke* and municipal corporations that operate distribution networks, which means it can operate in areas where it has no direct distribution concessions.

At the beginning of 2007, EnBW increased its stakes in three regional corporations:

- Erdgas Südwest GmbH of which it now holds a stake of 79% (i.e., a 28% increase compared to December 31, 2006);
- Energie Sachsen Ost GmbH (ENSO) of which it now holds a stake of 64.84% (i.e., a 14.5% increase compared to December 31, 2006);
- Gasversorgung Sachsen Ost Wärmeservice GmbH & Co. KG of which it now holds a stake of 100% (*i.e.*, a 76.5% increase compared to December 31, 2006).

Increasing its stakes in the share capital of these corporations allows EnBW to strengthen its position in Baden-Württemberg and in east Saxony, which are two important markets for EnBW.

As of the date of the present document, EnBW holds a 54.95% stake in the share capital of the Düsseldorf Stadtwerke AG, ("SWD") located in the center of the area where its competitor, RWE, operates. In December 2005 City of Düsseldorf's exercise of one put option granted by EnBW on a 25.05% stake in the share capital of SWD, allowed EnBW to take control of SWD in March 2006, after the European Commission consented to this acquisition. The city of Düsseldorf also holds a second put option on EnBW, also on 25.05% of SWD's share capital. The exercise period of the second put option began on January 1, 2005 and expires on December 31, 2008. EnBW may extend these exercise periods, by one-year periods, upon written notice sent no later than October 31st of the year in which the exercise period expires. As of December 31, 2007, the exercise price of the second put option was accounted for as €248 million in the other debts of EnBW's balance sheet (source: EnBW).

The table below illustrates the size of the EnBW network:



#### Length of the EnBW Group network

Very high voltage:	
380,000 volts	1,992 km
220,000 volts	1,787 km
High voltage:	
110,000 volts	9,796 km
Medium voltage:	
30,000, 20,000 and 10,000 volts	48,571 km
Low voltage:	
400 volts	103,004 km

(Source: EnBW 2007 annual report)

Like German distribution networks in general, the EnBW distribution network is characterized by a level of quality of service that is among the best in Europe.

#### EnBW owns the transmission network.

The distribution networks belong to it for the duration of the concessions. Networks granted under a concession are accounted for as tangible assets in EnBW's balance sheet. Concessions held by utility companies in which EnBW has a minority stake are shown on the balance sheet of such utility company. Where EnBW has a majority stake, this concession appears in the EnBW group accounts.

Most of the concession agreements entered into by EnBW will have to be renewed between 2008 and 2012. The company has prepared itself for these deadlines and several years ago drew up a structured action plan consisting of various measures: situation analysis by municipality, definition with the associations of the municipalities of Baden-Wurtemberg of a standard contract for concessions, allocation of special investment budget for concessions, etc. Thus, in 2007, EnBW renewed nearly 140 contracts of concessions concerning distribution networks of electricity.

The non-renewal of a concession does not necessarily mean that EnBW ceases to operate in the municipality concerned. Often, a municipality that does not renew its concession may create a *Stadtwerke* and allow EnBW to participate in its share capital, which would allow EnBW to continue to secure the related area. If a concession is lost, EnBW must sell the network to its competitors or to *Stadtwerke* at market price ("*Ertragswert*"). If the non-renewed concession is granted to a competitor, EnBW does not necessarily lose its customers as they have sales contracts with EnBW. However, the "new" network operator will have a strong interest in acquiring these customers.

EnBW aims to increase its presence in the distribution business outside Baden-Württemberg by purchasing stakes in regional utility companies.

Following the implementation in July 2005 of a new law on energy and the creation of a regulatory entity, the access tariffs were reduced for transporters and distributors in 2006. EnBW was compelled in 2006 to reduce its tariffs by 8% for its electricity transport network, 14% for its electricity supply network and 17% for its gas supply network, compared to the tariffs requested by EnBW. The important competitors of EnBW were also compelled to impose significant reductions. At the beginning of 2008, a new decrease in tariffs for the access to the electricity transport and supply networks of 11% compared to the 2007 tariffs was notified to EnBW by the regulator.

In September 2007, the German Government decided to pass from a control of the network access charges based on the costs to the incentive

control of the electricity and gas networks from 2009. The regulation schedules for the electricity two periods of 4 to 5-year control (2009-2013 and 2014-2018) for the gas, a first period of 4 years, then a second of 5 years (2009-2012 and 2013-2017).

Although EnBW assesses the network access charges are relatively low compared to its competitors, the Company should still be subject to the pressure of the regulator.

#### **Trading activity**

EnBW Trading GmbH is a wholly-owned subsidiary of EnBW, responsible for managing the upstream-downstream balance, *i.e.*, the balance between different means of sourcing (including its own generation capacity) and demand for electricity. It is responsible for managing generation capacity, fuel purchases and the management of associated risks, as well as EnBW's supply contracts. It also deals with CO<sub>2</sub> quota transactions and trades on its own account.

EnBW Trading operates on the wholesale markets and on the electricity stock market. It has been a leading operator in the German electricity stock market.

#### 6.3.1.2.3.2 GAS BUSINESS

At the end of 2007, the EnBW group had approximately 530,000 gas customers. In 2007, EnBW sold 75.2 TWh of gas and recorded sales of €2.48 billion (source: EnBW 2007 annual report).

#### Transmission and storage

In the midstream sector, EnBW operates mainly through Gasversorgung Süddeutschland GmbH (GVS) and EnBW Trading. GVS, of which EnBW owns, in parity with ENI, 50% of the share capital, is one of the largest regional German gas transportation companies and has a 1,892 km network of gas pipelines and 90 million cubic meters of storage capacity (mainly in Baden-Württemberg). GVS sells gas almost exclusively to redistributors and its only direct customers are industrial.

GVS is mainly supplied by E.ON Ruhrgas, but also Wingas, a joint venture between Gazprom and Wintershall, which is wholly held by BASF. Since 2004, ENI has also provided gas to GVS.

In 2007, EnBW Trading extended its activities to physical gas transactions in Germany and neighboring countries.

There is an upgrading of the competition on the German gas market, leading to the necessity of the access to capacities of gas at competitive prices. In this context, EnBW's objective is to develop its midstream activities. EnBW executed a memorandum of understanding in June 2007 with respect to a strategic partnership with 4Gas concerning the LNG LionGas terminal project in Rotterdam. The memorandum of understanding will enable EnBW, in the long term, to access a capacity of 3 Gm³ of natural gas.

EDF and EnBW also executed agreements under which they are allowed to use salt caves in Etzel in the north of Germany to store the natural gas. This storage should enter into service by 2011 and allows an effective capacity of about 0.4 Gm<sup>3</sup> (see Section 6.4.2 "Natural gas businesses").

## **Distribution and Supply**

In Baden-Würtemburg, EnBW supplies gas to residential customers mainly through its subsidiaries EnBW Gas GmbH and ODR. EnBW Gas GmbH brings together several regional and local distribution channels (in particular Erdgas Südwest GmBH). It has a presence in Saxony and Düsseldorf through ENSO Erdgas GmbH (previously Gasversorgung Sachsen Ost GmBH) and Stadtwerke Düsseldorf respectively.

These subsidiaries, which are active in the marketing of gas, hold concessions. The gas supply concessions regulatory framework is the same as for electricity supply concessions. During 2007, EnBW renewed approximately 10 concession contracts concerning the gas distribution network in Baden-Würtemberg.

Competition on the gas market intensifies with the launch of a domestic offer to final clients by E.ON in January 2007 and the arrival of new competitors on the market.

Similarly to a large number of German electricity producers, EnBW has raised the price of gas to residential customers on January 1, 2008. For an average household using 20,000 kWh per year, the increase is of 6.9%, against 5.8% on average in Germany.

In October 2007, Yello also launched a gas offer bounded for the moment to the cities of Essen in North Rhineland Westphalia and Nuremberg in Bavaria, which constitute major local markets offering good conditions for the new competitors. Within the framework of the gas offer, the client benefits of the installation of an intelligent meter.

#### 6.3.1.2.3.3 ENERGY AND ENVIRONMENTAL SERVICES

Energy and environmental services include waste elimination businesses, water distribution and energy-related services for industry. EnBW's consolidated sales in 2007 in these areas were €693 million, which represents an increase of 17% compared to 2006 (source: EnBW 2007 annual report).

## Industry and services

EnBW supplies energy-related services to companies through its wholly-owned subsidiary Energy Solutions GmbH ("ESG"). ESG brings together all of EnBW's expertise in terms of energy and engineering services for industrial customers.

#### Waste treatment

In the waste treatment sector, EnBW operated mainly through its whollyowned subsidiary U-plus, combining several domestic and industrial waste removal and treatment companies.

U-Plus was sold in April 2007 to the waste collection company ALBA.

Through its wholly-owned subsidiary T-plus, EnBW also manages waste treatment businesses. Technical difficulties on both mechanical and biological treatment of U-plus facilities have led EnBW to shut down 2 facilities in 2007.

#### 6.3.1.2.3.4 DEVELOPMENT AREAS

EnBW carried out over the 2003-2006 period a cost reduction program named "Top Fit". At the end of 2006, EnBW exceeded the targets defined in that Top Fit program (cumulative achievement at the end of 2006 of €1.056 billion in recurring savings compared to a target of €1 billion) (source: EnBW 2007 annual report). All of the actions taken led to a significant improvement in its performance and its financial structure.

At the beginning of 2007, a new program called "Operative Exzellenz" was launched. This program intends to optimize continuously the operational processes by an strong implication of the operators, but also to realize quick earnings on a short term basis. After a pilot phase in 2007, the program Operative Exzellenz will continue to be developed in 2008.

While maintaining its objective of financial discipline over the coming years, EnBW's ambition is to consolidate and develop its position as the

third German energy group with a strong regional base. To this effect, EnBW's Management has stated that priority would be given to strengthening its positions in Baden-Württemberg and expanding in Germany. Furthermore, EnBW wishes to strengthen its position in central and eastern Europe. Certain growth opportunities in this region and in south Western Europe will also be explored (source: EnBW 2007 annual report).

#### 6.3.1.2.3.5 POTENTIAL SYNERGIES WITHIN THE EDF GROUP

Since the end of 2003, EDF and EnBW have embarked on a common program to create synergies. They have therefore developed approximately 40 projects.

With regards to generation, cooperation is centered on internal projects within the Group:

- Study for the construction of new EnBW fossil-fired power plants.
- In the area of hydropower, EDF and EnBW continue to cooperate in a study for a fifth turbine in the Iffezheim power plant (increase of capacity of 30 MW) and in the construction of a new power plant at Kehl and Breisach (capacity of 4 MW).
- In the operation of nuclear power plants, benchmarks for maintenance and safety costs have been defined in order to optimize generation costs of power plants. In addition, a joint program of recruitment and training of bilingual engineers allows to strengthen the cooperation.

In the sales and marketing field, EDF and EnBW are implementing a common strategy with regards to certain major industrial customers. This has allowed them to work side by side with customers and to increase sales. In the context of this strategy, EnBW has gained as new clients, the German steel producers RIVA, representing a capacity of 3,500 GWh of electricity on the 2008-2009 period.

Moreover, in some countries, such as Poland, the EnBW and EDF sales teams have been merged. In the research and development field, in particular through the EIFER (the European Institute of Energy Research, created by EDF in collaboration with the Karlsruhe University) EDF and EnBW entered into an agreement in January 2003 regarding renewable energy, distributed generation and fuel cell batteries.

In the gas business, relationships between EDF and EnBW have continued to grow. Joint operations have already been carried out with regards to supply and transmission. EDF and EnBW executed together agreements for storage capacities of natural gas in Etzel in the north of Germany.

#### 6.3.1.2.4 Modifications of the board of EnBW

- Hans-Peter Villis succeeds to Utz Claassen as the Chairman of the Board.
- Pierre Lederer, COO of EnBW, has been appointed as Vice-President of the Board of EnBW.
- Hans-Josef Zimmer, previously member of the Board of EnBW Kraftwerke AG, has been appointed as Technical Director.

### **6.3.1.3** ITALY

The EDF Group operates in Italy mainly through its shareholdings in Edison, the second operator on the Italian electricity market and third in the gas market. As of December 31, 2007, the Group held 19.36% of Edison's share capital directly (18.96% of its economic interests after accounting for shares in the employees savings plan), and 50% of the share capital of Transalpina di Energy (TdE), which in turn holds 61.28%



of Edison's share capital (60% of its economic interests). Therefore EDF's direct and indirect stake in Edison is 50% of the voting shares or 48.96% of the economic interests.

The agreements entered into during the year 2005 by the Group with AEM S.p.A. (Milan's local electricity company, previously called AEM Milan, now A2A S.p.A ("A2A")) provided for the joint takeover of Edison by EDF and AEM Milan (now A2A). The terms and conditions of this takeover are described in Section 6.3.1.3.1.2, "Joint takeover of Edison by EDF and AEM Milan (now A2A)".

Furthermore, the EDF Group operates in Italy through the following subsidiaries and shareholdings:

- Fenice: as of December 31, 2007, the Group wholly owns Fenice, which specializes in electricity generation, supply of energy-related services, solid and liquid industrial waste treatment, and environmental activities;
- Siram: the Group holds, through Dalkia and Dalkia International, a 50% interest in Siram. Siram specializes in energy-related services to customers in the service sector, industrial companies and local authorities;
- EDF Energies Nouvelles Italia: this subsidiary (95% held) brings together EDF Energies Nouvelles' stakes in various energy projects in Italy, primarily in the area of wind energy.

#### 6.3.1.3.1 EDISON

Edison is the oldest Italian electricity company. Edison is the second largest operator in the Italian electricity market (after the historical operator Enel) and the third largest operator in the gas market after ENI and Enel. In 2007, net electricity generation by Edison was 53.4 TWh, which accounted for 17.7% of net electricity generation in Italy, and gas activities, excluding stock variation, accounted for 13.2 Gm³, or 15.8 %, of Italian gas demand.

Between 2006 and 2007, Edison made two disposals; it sold its electricity grid, Edison Rete, to the Italian company Terna (in November 2006), and its 66.3% stake in Serene's 400 MW CIP6 plants to BG Italy, subsidiary of British Gas Group (in February 2007).

In 2007, Edison generated €8,276 million<sup>26</sup> of revenue and an EBITDA (margine operativo lordo) of €1,605 million (source: Edison's 2007 annual report). In EDF Group's consolidated financial statements as of December 31, 2007, Edison is consolidated by proportional integration at 48.96%.

Edison is listed on the Milan stock exchange pursuant to whose regulations it publishes a certain amount of information (in particular, its annual report) that is available on its website (www.edison.it).

## Market environment and price trend

Electricity demand in Italy totaled 339.8 TWh in 2007, up 0.7% over 2006. An increasing competition, due to the starting, in 2007, of new combined-cycle gas turbines (CCGTs) for a capacity higher than 5,000 MW, and to the energy demand slowing down, had consequences on wholesale prices, which have fell of approximately 5%. Nevertheless, the more significant prices fall in the French-German plate have lead to an increase in net imports in Italy (overseas net trading increased by 2.1% relative to 2006).

Net national demand of natural gas reached 83.6  $\mbox{Gm}^{3}$  (increase of 0.1%

relative to 2006 (source: Edison). This stability is mainly due to the reduction in consumption related to the particularly soft climatic conditions of the first months of the year, which has been compensated by the increase in the needs for supply of natural gas for the generation of electricity due to the start of new CCGT power stations.

#### 6.3.1.3.1.1 STRATEGIC INTEREST OF EDISON SHAREHOLDING

The Italian electricity market is, in term of consumption, the fourth largest market in the European Union with a high growth rate and price levels. The development of new generation capacities is a major challenge. Competition is encouraged by the Italian government, which has taken measures to reduce the market share controlled by the historical operator.

The position and ambitions for growth of Edison allow the Group to implement a balanced strategy in Italy based on Edison's ambitions to develop its electricity production facilities, its portfolio of customers and its gas business.

Edison continues to increase the installed capacity of its generation assets in Italy, to 12.5 GW at the end of 2007 and a planned 13.7 GW by 2013 (including its share in Edipower), mainly by building an 800 MW CCGT plant in Italy and projected capacity of 1,000 MW in other countries.

In terms of supply, Edison's goals for the coming years are to significantly develop its electricity sales to small and medium-sized companies as well as its gas sales to large industrial customers. Furthermore, Edison intends to develop a dual electricity-gas offer for its business customers in order to significantly increase its sales in these sectors.

In addition to the EDF Group's strategic interest in the growth of Edison and that of the Italian electricity market, Edison's development plan provides opportunities for synergies with the EDF Group in the short term notably in the fields of engineering, equipment purchases, supply to large customers' services.

In the gas market, Edison offers opportunities for synergies and holds an important position in the gas component of the Group's strategy. Edison is also implementing different infrastructure projects for the delivery of natural gas to Italy. Edison plans to have independent import infrastructures permitting the delivery of gas coming from the Mediterranean and Caspian Seas for onward transportation to continental Europe. This will allow the Group to gradually reduce its reliance on the infrastructures of its main competitors. If these projects materialize, they could contribute to turning Italy into the gas transit center from South through North, creating opportunities to satisfy Group's needs in France and in Germany. A Natural Gas Assets Committee, co-chaired by the Executive Vice President of International Subsidiaries and Business Development and the Edison CEO, reviews plans for potentially expanding the company's natural gas assets.

For the implementation of its natural gas business strategy, the Group can benefit from the experience that has been developed over the course of many years by Edison along the entire gas value chain, from exploration/production to direct supply of natural gas.

## 6.3.1.3.1.2 Joint takeover of Edison by EDF and AEM Milan (now A2A)

On May 12, 2005, EDF, AEM Milan (now A2A), WGRM Holding 4 S.p.A. (a wholly-owned subsidiary of EDF) and Delmi S.p.A. (a subsidiary held at

<sup>26</sup> Of which €6,783 million before writing off intra-group electricity transactions and €3,937 million before writing off intra-group gas transactions.

that time at 95% by AEM Milan (now A2A)) entered into a Structure Agreement and a Shareholders' Agreement governed by Italian Law, relating to the implementation of their joint takeover of Edison and the exercise of their joint control. To further this goal, they formed Transalpina di Energia S.p.A. (TdE), a jointly-held holding company in which WGRM and Delmi each hold 50% of the share capital.

AEM Milan (now A2A) is an integrated Italian operator, listed on the Milan Stock exchange, active in the markets of generation, importation, supply, transmission, distribution and sales of electricity and gas to endusers. On January 1, 2008, AEM merged with ASM S.p.A. (the utility serving Brescia in Lombardy) to create A2A S.p.A., which is the secondlargest energy provider in Italy due to its stake in Edison's consolidation.

As at the date of the present Document de référence, Delmi is controlled by AEM Milan (now A2A), which holds 51% of its share capital and voting rights, by industrial partners with 35% (ENIA, SEL and Dolomiti Energia) and by Italian banks with 14%.

#### Edison's voting rights after the exercise of warrants

On January 2, 2008, Edison disclosed that 1,094,740,583 warrants were exercised in 2007 at an exercise price of €1. (A further 91,877 warrants were not exercised by their expiration date on December 31, 2007 and were therefore cancelled.) These warrant exercises provided Edison with an additional €1,094,740,853 of capital, bringing its total share capital to €5,291,664,500. The total number of ordinary Edison shares outstanding is now 5,291,664,500, and the number of shares without voting rights (i.e., shares for the employee savings plan) is now 110,592,420.

In December 2007, EDF (including its wholly owned WRGM subsidiary) and TdE (50%-owned by EDF) exercised all their Edison warrants -281,549,617 and 210,012,399 warrants, respectively – and consequently received the same number of ordinary Edison shares with voting rights.

However, these warrant exercises did not alter Edison's governance structure, because the governance agreement with AEM was arranged on a fully-diluted basis (i.e., accounting for the exercise of all warrants). In consistency with these agreements, after the warrant exercises were completed in December 2007, EDF owned 50% of Edison voting rights and 48.96% of its economic interests (i.e., after accounting for the employee savings plan shares, which do not have voting rights).

### Specific provisions of the Structure Agreement

The Structure Agreement whose provisions would stay in force until December 31, 2020, contains a provision relating to the change of control of A2A or Delmi. In the case of a third party other than the city of Milan acquiring the control of AEM Milan (now A2A), or in the case of a third party other than A2A appointing the majority of the members of the Board of Directors of Delmi, this provision gives EDF a call option to purchase Delmi's stake in TdE. The Structure Agreement has a similar provision as to EDF and WGRM towards AEM.

### Joint control of Edison

The Shareholders' Agreement provides for rights and obligations of TdE shareholders, the exercise of joint control of Edison and the rights and obligations of EDF and AEM Milan (now A2A) in respect of TdE and Edison.

#### TdE

The Board of Directors of TdE shall be comprised of 10 members elected by the shareholders, five appointed by EDF and five appointed by Delmi. Delmi will appoint the TdE Chief Executive Officer, and EDF will appoint the Chairman of the Board of Directors. The meetings of the Board of Directors require a quorum of eight members, and decisions are made by a qualified majority of eight members. No director holds the right to a deciding vote.

#### Edison

In accordance with the Shareholders' Agreement, the Board of Directors of Edison will be comprised of 12 members elected by the shareholders. These members will be the five directors of TdE appointed by EDF, the five directors of TdE appointed by Delmi and two independent directors, one appointed by each of EDF and Delmi. In addition, Delmi will appoint the Chairman of the Board of Directors and the Chief Financial Officer of Edison (who can also be a director), whereas EDF will appoint the Deputy Director and the Chief Operating Officer. The meetings of the Board of Directors require a quorum of 10 members and the decisions will be made by a qualified majority of 10 members. No director will hold the right to a deciding vote.

New legislation passed in Italy requires that Italian listed companies modify their bylaws before June 30, 2007, so that minority shareholders can appoint at least one Board member through a list voting system. Edison changed its bylaws accordingly; minority shareholders can now appoint a thirteenth Board member provided that a list of candidates is presented.

#### Specific provisions of the Shareholders' Agreement

The Shareholders' Agreement came into effect on September 15, 2005, and establishes the fundamental principle that the management of Edison will be determined exclusively by TdE. Consequently, EDF, WGRM, AEM Milan (now A2A), and Delmi have agreed in relation to shares of Edison that they hold, or may hold in the future, directly or through their subsidiaries:

- to exercise their right to vote (or abstain from voting or participating in Shareholders' Meetings of Edison), in accordance with the position of TdE; and
- not to use their shareholder's rights in a way which would be inconsistent with a decision made by TdE or which would be contrary to the above-mentioned principle, or in their own interests.

The Shareholders' Agreement has a minimum duration of three years (five years if Edison ceases to be listed) and is then automatically renewed for the same duration, unless terminated by one of the parties under the terms of the agreement, in which case TdE will be dissolved.

As the Shareholders' Agreement has not been terminated before March 15, 2008, it will be extended by tacit renewal from mid-September 2008 for a new three-year period.

During the initial period of three years, no party may sell its holdings in TdE to a third party. The by-laws of TdE contain, in addition, a mutual preemptive right which will apply during the life of the company, but which does not apply in the event that WGRM sells all of its holdings to EDF.

The Shareholders' Agreement will be automatically terminated if EDF, directly or indirectly through WGRM, or if AEM Milan (now A2A) indirectly through Delmi, ceases to hold more than 50% of the voting rights which can be exercised at the Shareholders' Meetings of TdE or if the assets of Delmi are liquidated. EDF may also terminate the Shareholders' Agreement if AEM Milan (now A2A) ceases to hold the majority of the voting rights of Delmi or ceases to appoint the majority of the members of the Board of Directors of Delmi. AEM Milan may also terminate the Shareholders' Agreement if EDF ceases to directly hold 100% of the share capital of WGRM or if WGRM exercises any substantial activity other than the management of its holdings in TdE or Edison.



#### 6.3.1.3.1.3 Edison's business in the electricity sector

After Enel, Edison occupies the number two position in the Italian electricity generation market.

#### Generation

The Edison group's installed generation capacity amounted to 12.5 GW as of December 31, 2007 (including 50% of Edipower's installed generation capacity) with a net electricity generation of 53.4 TWh in 2007 (source: Edison).

This generation includes 11.9 TWh of Edipower's generation, which is at Edison's disposal pursuant to the Tolling Agreement (right to benefit from generation capacities at an agreed price) for the fossil-fired power plants and pursuant to a Power Purchase Agreement for hydroelectric power plants. Under these contracts, Edison will benefit from a right to 50% of Edipower's existing and future thermoelectric and hydroelectric generation capacities between January 1, 2004 and December 31, 2011. The remaining 50% is divided between Atel (20%), AEM Milan (now A2A) (20%), and Iride (10%). The co-contractors are jointly committed to Edipower. If any of the parties fails to perform its obligations, the remaining co-contractors would have to purchase a quantity of energy equal to that of the defaulting co-contractor up to its respective share.

On July 16, 2007, Edison exercised its call options on Edipower's securities held by the financial institutions Interbanca and Albojo (Royal Bank of Scotland Group). The transfer of these securities (5% of Edipower's share capital) took place on July 31, 2007. In addition, in 2007, Edison has received notice of the exercise by Unicredit of its put option concerning 5% of Edipower's share capital. The transfer of these shares took place on January 31, 2008. Therefore Edipower was 50%-owned by Edison.

The economic interest of each industrial partner of Edipower is now

equal to its percentage of the power generated by Edipower. Edipower was created in order to acquire Eurogen from Enel on May 31, 2002, following the opening-up of the Italian generation market. Edipower had 3.8 GW of generation capacity in 2007.

ACEA, Rome's municipal utility, and Endesa Italia started an action against EDF before the Civil Court of Rome arguing that the takeover of Edison by EDF and AEM led to the indirect crossing of the threshold of 30% of the capital of Edipower by public entities, which, according to ACEA and Endesa Italia, would constitute an act of unfair competition. The next hearing is expected in June 2008. (See Section 20.5.2 ("Legal proceedings concerning EDF's subsidiaries")).

Following the startup in 2007 of the Simeri Crichi 850 MW combined-cycle gas turbine (CCGT) plant in Calabria and Edipower's 850 MW plant in Turbigo (which is 50%-owned by Edison), Edison completed in 2007 the 7,000 MW capacity increase program started in 2001. This program was one of the largest power generation capacity increase programs to take place in Europe over the past decade, and involved building eight CCG units, four of which are owned by Edipower, and connecting them to the grid. Edison sold seven older, small-scale units (540 MW total) to Cofathec at the begining of 2008. Edison is also expanding into renewable energy, and put 10 MW of wind energy capacity into service in 2007.

Edison's generation capacities are mobilized mainly to meet the base-load and mid-merit electricity requirements of the Italian market. Edison has drawn upon imports and other Italian suppliers and dealers to cover the balance of its requirements (10.4 TWh in 2007).

Edison's generation capacity (including its share in Edipower) in the European Union is as follows:

## 2007 Installed Capacity of the Edison Group (GW)

	Edison <sup>(1)</sup>	Edipower (Edison's share 50%)	Total	%
Thermoelectric	7.0 <sup>(2)</sup>	3.4	10.4	83
Hydroelectric	1.4	0.4	1.8	14
Wind power	0.3	_	0.3	3
TOTAL	8.7	3.8	12.5	100

<sup>(1)</sup> Source: Edison

(2) The installed thermoelectric capacity of Edison at the end of 2007 includes 540 MW from the CIP6 plants sold to Cofatech.

The power generated in the European Union by Edison and its share in Edipower in 2007 was broken down as follows:

## 2007 Generation of the Edison Group (TWh)

	Edison <sup>(1)</sup>	Edipower (Edison's share 50%)	Total	%
Thermoelectric	38.0	11.2	49.1	92
Hydroelectric	3.0	0.7	3.7	7
Wind power	0.5	_	0.5	1
TOTAL	41.5	11.9	53.4	100

(1) Source: Edison

#### Development projects

Edison has launched an investment program in order to increase its generation capacity and build sites outside Italy. The main ongoing investment programs are the following:

New capacity

Edison's medium-term capacity expansion plan includes the start-up of an 800 MW CCGT plant in the center of Italy in December 2011.

In addition, Edison intends to repower some of the plants receiving CIP6/92 subsidies.

The company thus aims to increase its capacity to 13.7 GW (including its share of Edipower's generation) by 2014, through around 350 MW of new wind energy facilities and 175 MW of new hydroelectric facilities – which will also allow Edison to obtain the corresponding green certificates.

Edison plans to invest approximately €1 billion in renewable energy, in Italy as well as other countries, between now and 2014.

• Expansion outside Italy

By the end of 2007, Edison had achieved most of its goals for electrical generation capacity, and will now focus on bolstering its position in the Italian market and expanding into other European markets such as Greece, other Mediterranean countries, and the Balkan region. The main focus areas for the company's international expansion are:

- Greece: In July 2007, Edison has been authorised by the Board of Director to sign a memorandum of agreement to create a 50/50 joint venture with the Greek company Hellenic Petroleum, which will own a 390 MW CCGT unit (already running) and one CCGT unit and one coal-fired unit under construction, for a total capacity higher than 1,400 MW;
- Romania and Turkey Edison is reviewing several projects for thermoelectric and renewable energy plants.

### Renewal of Hydropower concessions

Edison's and Edipower's hydroelectric assets are operated under a series of concessions granted by the Italian authorities for a limited period of time. The concessions in relation to these assets are scheduled to be renewed between 2008 and 2020.

The terms of renewal of the concessions set forth in the Italian Bersani Decree have been subject in 2005 to an infraction proceeding brought by the European Commission which contemplated referring the case to the European Court of Justice. In order to avoid such a proceeding, the Italian government promulgated the Law 266 dated December 23, 2005 (*Legge Finanziaria 2006*), which abrogated the provisions of the Bersani Decree relating to the attribution of the right of preference to the current licensee, and extended the period for hydroelectric concessions relating to "important derivations" in operation as of January 1, 2006 for a period of ten years over the expiration date. The Italian parliament approved a law which specifies that the 10-year extension will not apply in the autonomous provinces of Trent and

Bolzano. In November 2007, Edison and Dolomiti Energia (an Edison shareholder controlled by the province of Trent) agreed to form a joint venture that will be 51% owned by Dolomiti Energia. Ownership of the plants will be transferred to the joint venture, so that the corresponding concessions can be extended. Edison is in talks with SEL (an Edison shareholder controlled by the province of Bolzano) for a similar agreement.

#### Expiry of CIP6/92 agreements

Edison's CIP6/92 sale agreements, entered into with GRTN, have a term of 15 years and will expire between December 2007 and 2017. These contracts constitute an important element of Edison's profitability through:

- their tariffs, which are attractive, given average market prices;
- dispatching priority to call upon power plants; and
- the existence of an additional payment over the first eight years of the contract.

The progressive phasing out of the additional payment by 2009 and the termination of the CIP6/92 agreements by 2017, present a challenge to Edison in terms of margin and opportunities. As a result, Edison has, for several years now, adapted its industrial base through the development of new CCGTs, the reduction of its dependence on ENI for gas supplies, the plan to repower CIP6/92 plants and the sale of some CIP6/92 power plants. Thus, Edison has sold its shareholding in Serene SPA (66.3%) to British Gas Italia in February, 2007, which represents a total capacity of 400 MW. Following the sale of seven plants to Cofathec with a combined capacity of 540 MW, the total capacity of Edison's plants receiving CIP6/92 subsidies is approximately 2 GW.

In November 2006, the AEEG (Autorita per l'Energia Elettrica e il Gas) decided to reduce, from January 1, 2007, the amount of fuel taken into account in the formula used to calculate the subsidies awarded to the producers benefiting from CIP6/92 agreements. The decision has been confirmed on January 22, 2008 by the Conseil d'Etat. Edison estimates that this has reduced its 2007 EBITDA by around 10%. However, the impact will gradually decrease over the next few years as CIP6/92 agreements expire.

## Supply

In 2007, Edison sold 18.7% of the total net Italian electric power demand 63.6 TWh in Italy (and 0.2 TWh in export), 53.4 TWh of which was generated by Edison and 10.2 TWh was imported or purchased on the Italian wholesale market. Edison's 2007 sales break down as follows:

- 4.3 TWh sold on the markets (single-buyers<sup>27</sup>, wholesalers, and endusers):
- 41.2 TWh sold directly to end-users under long-term contracts (mainly electricity generated on a customer's site by a power plant built by Edison):
- 18.1 TWh sold under CIP6/92 sales contracts; and
- 0.2 TWh of exports.

Edison's supply activity is focused on its business customers and SMEs. The company intends to develop a dual electricity and gas offer for its business customers.

<sup>&</sup>lt;sup>27</sup> Public entity purchasing electricity from CIP6/92 producers, the wholesale market and imports, in order to supply distributors for the share corresponding to the consumption of non-eligible customers and the eligible customers who have not exercised their eligibility rights.



#### 6.3.1.3.1.4 Edison's business in the gas sector

Edison ranks third after ENI and Enel in the Italian market for the supply and marketing of gas, with a 16.1% market share in 2007 (source: Edison).

In 2007, Edison purchased 12.9 Gm³ of gas, in addition to 1 Gm³ from its own production capacity (of which 0.7 in Italy). Of the 12.9 Gm³ of purchases, 6.8 Gm³ (including stock variation and network losses) have been purchased on the Italian wholesale market, and 6.1 Gm³ are imported.

In 2007, Edison consumed 9.1Gm³ of gas to generate electricity and sold 1.1 Gm³ of gas to industrial customers, 2.6 Gm³ to small business and residential customers, 0.7 Gm³ on the wholesale market and 0.3 Gm³ outside Italy.

Following a strong increase in the prices of gas worldwide, the regulator tried to limit the increase for final customers by setting a ceiling for prices in 2005 and 2006 (resolution 248/04 et seq). AEEG's resolution 79/07, passed with the agreement of market participants, limits the gas prices charged to small customers and ultimately established conditions that are more favorable for suppliers.

The large volume of gas consumed by Edison is due to the fact that gas is the main source of its electricity generation, as it has gradually moved away from fuel oil.

Securing gas supplies in the medium and long term is a major imperative for Edison. Hence Edison is involved in the construction of an offshore regasification terminal in Rovigo (8 Gm³ per year), which should be completed by the end of 2008, through a joint venture with ExxonMobil (45%) and Qatar Petroleum (45%), with Edison owning the remaining 10%. The agreement entered into in May 2005 with these two partners gives Edison access to an annual volume of gas of 6.4 Gm³ over 25 years.

In terms of exploration and production (E&P), Edison obtained five new exploration permits in Norway and signed an agreement with Petrobras for a deepwater exploration project off the coast of Senegal. Edison aims to increase the percentage of gas it produces itself from 1.5 Gm³ in 2006 to 3.1 Gm³ in 2015, so that it reaches 15% of its supply for the long-term.

Moreover, Edison is involved in the following import infrastructure projects:

- GALSI Project: A pipeline to link Algeria and Italy via Sardinia with an annual capacity form 8 Gm³. The first phase relating to the feasibility study is finished. The project should be finalized by a realization decision by the end of 2008. Edison has already entered into an agreement with Sonatrach for the delivery of 2 Gm³ of gas, subject to the completion of this project. The Italian and Algerian governments signed an agreement for the building of this pipeline in November 2007, and it should go into service in 2011.
- *IGI Project*: A pipeline to link Greece and Italy with an annual capacity of 8 Gm<sup>3</sup>, to allow the transit of gas notably from Caspian sea countries via Turkey. The Italian, Turkish, and Greek governments signed an agreement for the building of this pipeline on July 26, 2007, and it should go into service in 2012.

In the medium term, Italy could become a gas transit country of gas from the south to the north of Europe. With this prospect, Edison is continuing its development and consolidation in gas delivery to reduce its reliance on ENI and make its prices more competitive, while helping to secure and diversify Italy's gas supply.

Edison has two subterranean storage sites, Cellino and Collalto, with a total capacity of 0.3 Gm<sup>3</sup>. The development of Collalto and the new storage sites of Cotignola and Mafalda should increase the capacity to 2.2 Gm<sup>3</sup> in 2012 (including 0.3 Gm<sup>3</sup> of the strategic reserves required by Italian Law).

#### 6.3.1.3.2 FENICE

Fenice is a wholly owned EDF subsidiary that operates the electricity, heat, and compressed air production plants and associated distribution networks, along with the historically associated environmental assets, that EDF acquired from Fiat when EDF purchased Fiat's stake in Fenice. These facilities are located in Italy, Spain, and Poland. Today, Fenice focuses on supplying electricity and environmental services to manufacturing companies and public agencies, alongside with a rapid building of new co-generation facilities.

Fenice generated €547 million of sales in 2007.

#### 6.3.1.3.2.1 FENICE'S ACTIVITIES IN THE ENERGY SECTOR

Fenice operates mainly in the field of outsourced management and operation of co-generation and tri-generation plants, electricity substations, fossil-fired power plants that produce both superheated water and steam for industrial use or site heating, cold generation power plants, compressed air generation units, and internal electricity distribution units, cold or hot, industrial compressed air and gas.

In terms of energy assets, Fenice has on December 31, 2007, electricity generation capacities of 328 MW and heat generation capacities of 2,886 MWth.

In Italy, Fenice has 43 generation sites, among which:

- 32 with thermal power generation facilities (steam, superheated water, and hot water) of a total power of 2,482 MWth;
- 10 with electric power generation facilities of a total power of 301 MW; and
- 33 with compressed air generation power plants of a total capacity of 920.000 m<sup>3</sup>/h.

In addition, Fenice operates and maintains, for third parties, at this date, 8 CIP6/92 combined-cycle gas turbines for a total capacity of 500 MW and 197 MWth.

These businesses represented 78% of Fenice's 2007 sales in Italy.

At the time of the sale of Fenice to EDF, it was decided to maintain and develop industrial and commercial relations with the Fiat group. The Fiat group therefore entered into service agreements with Fenice prior to 2002 for a minimum duration of eight years, which led to the transfer of assets to Fenice. These agreements were renegotiated in end of 2006, and as a result, their duration has been extended until 2012 and new development projects have been agreed on (construction and management of three cogeneration facilities with planned starting dates on the first quarter of 2009). If these agreements were to be renewed in 2012, Fiat is committed to buy back from Fenice all of the assets used for these agreements for an amount equal to the net book value of these assets. This would greatly compensate for the reduction in Fenice's future cash flows. The corresponding workforce would be re-transferred to Fiat.

Outside Italy, Fenice owns a subsidiary in Spain, Fenice Instalaciones Iberica, and one in Poland, Fenice Poland S.p.z.o.o. These wholly owned subsidiaries operate combined power, heating, and cooling plants for

third parties, and provide the associated energy and environmental services (heating and cooling systems, compressed air, industrial gases, and waste and wastewater treatment).

Since its acquisition by the EDF Group, Fenice has been diversifying its customer base and sectors of activity. Fenice offers customers in the public and private industrial sector industrial cogeneration and a broad range of environmental services.

## 6.3.1.3.2.2 OTHER FENICE BUSINESSES

Fenice is active in the environmental sector. The company builds and operates wastewater treatment plants, runs an incinerator for industrial and municipal waste, provides environmental consulting services, etc.

#### 6.3.1.4 REST OF EUROPE

#### **6.3.1.4.1** SWITZERLAND

Switzerland represents an industrial interest for the Group due to its geographic position in the center of European electricity transfers and because of its important capacities in terms of peak generation.

#### THE EDF GROUP'S ACTIVITIES IN SWITZERLAND

The Group operates in Switzerland through:

- 1. the EDF Group's holdings in hydropower generation facilities on the border, which generated 0.56 TWh of energy rights for EDF in 2007;
- 2. EDF's ownership of a stake in Atel Holding AG (formerly Motor-Columbus). Atel Holding AG currently owns 96.05% of Atel's (Aare Tessin Electricité) share capital and 99.81% of Atel's voting rights (after accounting for treasury shares), following its voluntary share swap offer for Atel shares. EDF now owns a 23.03% stake in Atel Holding pursuant to the voluntary share swap offer in 2007 and a mandatory swap of cross-held shares within Atel Holding that took place in 2006 (described below). EnBW has a 2.87% stake in Atel Holding. As part of this voluntary share swap, EDF transferred its 1.13% stake in Atel to Atel Holding.

#### (a) Description of Atel activities

Atel is an integrated electricity company, and is very active in the European electricity trading market. Atel's sales (as published by Atel) make it the main Swiss electricity companies, with sales of CHF 13.5 billion in 2007 (source: Atel 2007 annual report). In 2007, Atel sold 129 TWh mainly on wholesale markets and to major European customers, mainly in southern Europe and in the Eastern and Central Europe countries (PECO). Atel also supplies approximately 100,000 customers in north-western Switzerland. This business is based on major generation and transmission assets in Switzerland and in countries where Atel is developing its business. In 2007, Atel had a total installed capacity proportional to its holdings of 3,714 MW as follows: 1,567 MW in Switzerland 860 MW of hydropower, and 707 MW nuclear power), 1,323 MW in Italy and 824 MW in the PECOs.

Atel has recently embarked upon a strategy to expand into other European countries, including France, and to diversify its skills. The company has developed an energy-related services business through its subsidiary, AIT, and through the German energy-related services company, GAH.

## (b) Evolution of EDF's shareholding interest in Atel Holding AG (formerly Motor-Columbus)

In September 2005, EDF entered into a share purchase agreement concerning 17.32% of the share capital of Motor Columbus following UBS' sale of its 55.6% stake in this company.

On this occasion, EDF entered into a consortium agreement with the other principal shareholders of Atel and MC, *i.e.*, EOSH and the subconsortium of Atel's Swiss minority shareholders (with EDF, EOSF and these Swiss minority shareholders of Atel constituting the Consortium), as well as with Atel. EDF thus favored a solution that would allow it to protect its long-term interests without taking control of the company but through permanent shareholder rights within an enlarged holding company.

Following the definitive completion of the transfer of UBS' shareholding in Motor-Columbus to Atel and the Consortium on March 23, 2006, these latter were required to initiate a public exchange offer for the Atel shares. This mandatory offer was launched by Motor Columbus on behalf of the Consortium and Atel as a share swap offer.

In order to comply with Swiss regulations on cross-held treasury shares, Atel, EDF, and some of the members of the Swiss sub-consortium agreed on February 8, 2007 to swap the Motor-Columbus shares held by Atel (36,000 cross – held treasury shares) for the Atel shares held by the other parties in the agreement (114,444 Atel shares in all). The share swap transactions were carried out on June 29, 2007, bringing EDF's stake in Motor-Columbus from 36.94% to 37.13%, and in Atel from 1.23% to 1.13%.

The consortium agreement was amended on October 5, 2007, by agreement of the members of the Consortium to allow for the restructuring of Motor-Columbus/Atel through a voluntary share swap between Motor-Columbus shares and all Atel shares, followed by the steps necessary for Atel to obtain full control of Motor-Columbus. The consortium members also agreed to contribute all their Atel shares to the voluntary share swap.

The voluntary share swap took place between November 12, 2007, and January 10, 2008. A squeeze-out of the minority shareholders who did not contribute their Atel shares to the swap was initiated in January 2008 in accordance with Swiss stock exchange regulations. After the squeeze-out is complete, Atel will delist from the Swiss Exchange (SWX) and the new Atel Holding/Atel entity will be restructured. The new entity will also be merged with EOSH's operations and assets, and possibly with EDF's Swiss assets. The consortium agreement stipulates that EDF can have a minority stake of at least 25% in the new entity.

The new entity will operate power generation assets in the Swiss region and possibly EDF's Swiss assets as well. It will have all the resources needed to become a leading energy supplier in western Switzerland. It will rely on a complementary services portfolio in order to offer energy-related services across Europe, and will thus benefit from a strong position on the Swiss market and from a significant size at the heart of European electricity transfers in each of the different business areas (generation, networks, trading, and distribution).

- 3. Of the company EnAlpin, a wholly-owned subsidiary of EnBW, which produces and supplies run-of-river hydropower on the banks and valleys of the Rhône;
- 4. A 75.97% EnBW holding as of December 31, 2007 in Energiedienst which produces and supplies run-of-river hydropower from dams on the Rhine (6.2 TWh sold in 2007).

Apart from this commercial and capital presence, the Group has decided for several years to develop its presence on the Swiss electricity market through operational cooperation with the main Swiss operators (in particular Atel EOS).



#### 6.3.1.4.2 BENELUX

The Benelux countries constitute a consistent electricity zone with significant links with the Franco-German market place, thus presenting profitable development opportunities in electricity generation. Furthermore, Benelux countries form an important hub for the European gas market due to its numerous import and transit infrastructures and to the Zeebrugge hub<sup>28</sup>

#### THE EDF GROUP'S ACTIVITIES IN THE BENELUX COUNTRIES

Through long-term cooperation with Electrabel in the nuclear energy field, EDF owns 50% of the Tihange 1 nuclear power plant through its wholly-owned Belgian subsidiary, EDF Belgium S.A. The power attributed to EDF represents 3% of Belgium's generation capacity. Tihange 1's generation, which is attributed to EDF Belgium S.A., is sold in Belgium to a Belgian operator through a long-term agreement which expires in 2015.

The trading business of EDF Belgium S.A is oriented towards the industrial market and that of SMEs. Sales of electricity in 2007 totaled 3.6 TWh and sales of gas, developed more recently, 0.2 TWh.

EDF provides approximately one-third of Belgian imports (Belgium imports 5% to 10% of its consumption).

In July 2006, EDF has entered into a partnership agreement with the Dutch company DELTA N.V. for the development and the construction of natural gas power plant of 870 MW in the southwest of the Netherlands. On March 29, 2007, EDF and Delta created a joint-venture, Sloe Centrale B.V., whose corporate purpose is the construction and operation of the new power plant. This partnership includes the sharing in half of investments, a joint operation of the facilities and the sharing in half of the electricity generated. Commissioning is expected to take place in 2009.

## 6.3.1.4.3 SPAIN

#### • Hispaelec Energía S.A.

Hispaelec, established in 1999, a wholly-owned subsidiary of the EDF Group, is involved in the supply business. It does not have its own generation capacity. Hispaelec was established as part of EDF's strategy to service its major customers in Europe. It offers customized electricity supply, advice and optimization services.

### Elcogas

As of December 31, 2007, the EDF Group owns 31.39% of the Elcogas share capital. Elcogas uses an innovative clean-coal project at Puertollano in a power plant with a gross power of 335 MW fueled, in GICC mode (coal gasification integrated in a combined cycle), through coal gasification and local petcoke. In addition to natural gas, this installation allows the use of coal and oil cokes, which produce atmospheric emissions that are far below European standards. This facility is the largest solid fuel power plant of this type in the world. In 2007, Elcogas produced 1.4 GWh, including 1.1 GWh in GICC mode.

#### • EDF Peninsula Ibérica S.L.

The EDF Group owns 100% of EDF Peninsula Ibérica S.L, which is intended to represent the Group on the Iberic Peninsula, provide promotion and support services to Group's subsidiaries and, if necessary, the implementation of projects in the field of electricity generation and gas production.

#### 6.3.1.4.4 AUSTRIA

Austria lies at the hub of electricity and, especially, gas interconnections of the European network. It is strongly integrated with the market in Germany and is therefore of interest to foreign investors. Hydropower plants represent 70% of Austria's fleet of generation facilities.

#### THE EDF GROUP'S ACTIVITIES IN AUSTRIA

The EDF Group owns 80% (and Gaz de France 20%) of the Investment Company for Austria (*Société d'Investissement*, or "SIA"), which itself owns 25% plus one share of ESTAG's share capital (corresponding to a minority blocking interest in Austrian Law). The Land of Styrie owns the remaining ESTAG shares and entered into a shareholders' agreement with SIA, giving SIA greater powers than its blocking minority. ESTAG heads a group of 41 Austrian subsidiaries operating in the fields of energy, water, waste treatment and associated services, but whose strategy is to focus on energy-related businesses. Centered around Styrie, the ESTAG group is developing its business in the other Austrian Lands and some neighboring countries. Its two main subsidiaries are Steweag-Steg , the main electricity distributor and retailer in the Land of Styrie, and Steierische Gas Wärme (STGW) transporter, distributor and retailer of gas and heat in the same region.

In addition, EnBW operates in Austria through:

- a minority holding in Energie-Versorgung Niederösterreich (EVN), an electricity, gas and heat transmission, supply and distribution company, in the Land of Lower Austria. EVN is held at 51% by this same Land. EVN is the top distributor-supplier in Austria in terms of number of customers; and
- electricity delivery and purchase agreements with TIWAG and VKW, two electricity transmission and distribution companies operating in the Lands of Tyrol and Vorarlberg, respectively.

#### 6.3.1.4.5 COUNTRIES IN CENTRAL AND EASTERN EUROPE

## GROUP OPERATIONS IN CENTRAL AND EASTERN EUROPEAN COUNTRIES

The Group operates in three central and eastern European countries (PECO): Poland (electricity generation, co-generation), Hungary (co-generation, distribution), and Slovakia (distribution). Apart from EDF's shareholdings, EnBW also has minority holdings in Poland (electricity generation, co-generation and heat distribution), Hungary (electricity generation, distribution) and the Czech Republic (electricity distribution, co-generation). The EDF Group also operates in these countries through its subsidiary Dalkia International, mainly in co-generation intended for major urban heating systems.

Now that countries have completed their privatization programs and all major European players have operations in the region, opportunities for further acquisitions are scarce. Most business expansion potential lies in upgrading existing power plants or building new plants.

Just outside the EU, Russia is in the process of reforming its electricity sector and privatizing its electricity companies; some European companies have already made acquisitions and EDF may consider doing so as well.

## 6.3.1.4.5.1 POLAND

## The EDF Group's activities in Poland

The Group operates through the following four main subsidiaries:

<sup>&</sup>lt;sup>28</sup> Gas market established at the junction point of infrastructures of transport where gas arrives from various sources offering the possibility of physical exchange of gas.

- The Group controls the EC Wybrzeze co-generator (ECW) in the Gdansk region. ECW has an installed generation capacity of 353 MW and 1,225 MWth;
- The Group controls the electricity generation company ERSA in the Rybnik region. Its installed capacity is 1,775 MW;
- The Group also controls the co-generator of the town of Krakow, ECK.
   ECK has an installed generation capacity of 460 MW and 1,258 MWth.
   ECK sells its generation to PSE (Polskie Sieci Elecktroenergetyczne S.A.)
   through a power purchase agreement (PPA) which should expire in 2013;
- In 2007, the Group through its subsidiaries held 50% plus one of the shares of the co-generator Kogeneracja in the Wroclaw-Czechnica region (the stake as a percentage is 35.61%). Its installed generation capacity is 363 MW and 1,059 MWth. Kogeneracja owns 99.87% of the heat and power generation company, EC Zielona Gora (whose installed capacity is of 221 MW and 322 MWth). The long term electricity sale contracts of ECK (which expires in 2013) and of EC Zielona Gora (which expires in 2024) are the subject of a formal enquiry by the European Commission which concerns all Polish long-term contracts. EC Zielona has filed an appeal before the Court of first instance of the European Union disputing the legal basis of the opening of the enquiry by the European Commission.

On June 29, 2007, the Polish government passed a law specifying the conditions for terminating long-term contracts, and submitted it to the European Commission for approval. This law was drafted after extensive consultations with power companies and labor unions. The European Commission gave a favorable, unqualified opinion on the law and stated that the compensations indicated for the power generation companies were in compliance. EDF also feels the compensation levels are acceptable given the rising electricity prices. With no repayment of what the European Commission would have classified as state aide since 2004 requested, the Group's two subsidiaries signed an agreement at the end of December 2007 to terminate their long-term contract, and the complaint filed by EC Zielona Gora was withdrawn.

The elimination of sales contracts is not expected to affect the Polish market, since electricity prices are now climbing after having remained stable for many years.

In the European Commission's National Allocation Plans for  $\mathrm{CO}_2$  emissions for 2008-2012, Poland was allocated 208.5 million tonnes of allowances, although the Polish government requested 284.6 million tonnes. Therefore the government has filed an appeal against this decision with the European Court of Justice. However, the government has also initiated consultations for how to distribute the 208.5 million tonnes of allowances; the initial proposal, published on December 27, 2007, was highly criticized by the energy sector for being too favorable towards the manufacturing sector. The EDF Group's subsidiaries consequently expect to be constrained by their allowances.

Nevertheless, the privatization program unveiled by the new Polish government could offer business development opportunities.

## 6.3.1.4.5.2 Hungary

Hungary has, at the end of 2007, a total installed capacity of approximately 9 GW. Hungarian consumption represents approximately 41 TWh, compared to a generation of 34 TWh. Hungary is therefore an importer of electricity.

## The EDF Group's activities in Hungary

In Hungary, the Group is developing its generation, supply and distribution businesses, through two main subsidiaries: BERt and Demasz Zrt:

- BERt As of December 31, 2007, EDF owned 95.57% of BERt, which is based in Budapest and generates heat and electricity. BERt has an installed electricity generation capacity of 356 MW and heat generation capacity of 1,471 MWth, and supplies 60% of Budapest's heat needs. Most of its electricity (1.7 TWh/yr) is sold to a single Hungarian purchaser, Magyar Villamos Muvek Zrt. (MVM) through three power purchase agreements (PPAs) expiring in 2011, 2021, and 2024. However, the European Commission objected to the nature of these agreements. In June 2007, Hungarian regulators began discussions with BERt and MVM in order to replace the PPAs with EU-compliant agreements. Negotiations are still underway. Meanwhile, government Decree 389/2007 setting forth requirements for purchasing power generated from waste, co-generation, or renewable sources came into effect on January 1, 2008, and is applicable to the facilities involved. If the PPA is terminated, regulated tariffs will be removed on around 40% of the electricity that BERt produces from cogeneration;
- Demasz Zrt was listed on the Budapest stock exchange until December 1, 2006, and was fully-owned by EDF as of December 31, 2007. Demasz distributes electricity in southeast Hungary (19.6% of the country) and markets electricity across the entire country. In 2007, Demasz supplied 4.49 TWh of electricity to 770,887 customers. Demasz has several subsidiaries of which two are wholly owned;
- Demasz Hàlozati Eloszto Kft was created on January 1, 2007, to comply with the legal requirement that regulated and non-regulated businesses be separated. It owns the electricity grid assets (31,337 km of high, medium-, and low-voltage lines) and operates the regulated distribution business, supplying power to 767,959 delivery points.
- D-Energia Kft was created in 2003 to supply electricity in Hungary to customers who opted for the free market.

EnBW also holds the following minority holdings in the country:

- 21.7% of the supplier Matrai (held by RWE at 51%), which had an installed capacity of 836 MW in 2006 (Source: EnBW and RWE 2007 annual reports);
- 27.25% of the distributor ELMÜ, held at 55% by RWE (ELMU serves an area of more than two million inhabitants);
- $\bullet$  26.83% of the distributor EMASZ held at 54% by RWE (Source: EnBW and RWE 2007 annual reports).

### 6.3.1.4.5.3 SLOVAKIA

## The EDF Group's activities in Slovakia

The Group operates in Slovakia through a 49% holding in the distribution and supply company, Stredoslovenská Energetika, a.s. (SSE), based in the center of Slovakia (province of Zilina), which covers approximately one-third of the country's territory. SSE has 32,193 km of high, medium-voltage and low power lines. As of December 31, 2007, SSE had 699,665 customers representing 6,306 GWh, *i.e.*, approximately 30%, of the Slovak market.

In order to be in compliance with regulatory requirement of regulated and non regulated activities separation, SSE's regulated activities have been transfered from July 1, 2007, to its wholly owned subsidiary Stredoslovenskà energetika – Distribucia a.s.

In accordance with the shareholders' agreement entered into on June 25, 2002 with the Slovak National Property Fund, the EDF Group names three of the five members of the SSE Executive Board, including the Chairman and has one representative among the nine members of the supervisory board. At the Shareholders' Meeting, decisions are made unanimously by the two shareholders.

Within the context of the continuing privatization process, the



aforementioned shareholders' agreement gives the Group a preemption right over 2% of SSE's shares and gives the Slovak National Property Fund a put option which it can exercise against the Group for 18% to 51% of SSE's share capital at an exercise price which will be determined by an independent expert. This put option may be exercised until October 31, 2008.

The Group intends to grow its share of this market and is looking into various capacity expansion projects.

#### 6.3.1.4.5.4 CZECH REPUBLIC

#### The EDF Group's activities in the Czech Republic

The Group operates in electricity generation and distribution in the Czech Republic through EnBW minority holdings in PRE-Holding and PT Holding, respectively, the electricity distribution, and the heat distribution companies of the city of Prague.

## **6.3.2 Latin America and the United States**

### PRESENCE OF THE EDF GROUP IN LATIN AMERICA

In 2007 the EDF Group continued its strategy to withdraw from the companies located in Latin America in which it had shareholdings.

#### 6.3.2.1 ARGENTINA

In 2007 the EDF Group completed its withdrawal from Argentina by selling its stakes in Edenor and its stakes in Distrocuyo, the disposal of the latter being still under way.

#### SALE OF EDENOR

EDF sold its remaining 25% stake in Edenor, an Argentinian company that distributes and markets electricity, on May 4, 2007 for \$171 million (€125 million). This sale was carried out during Edenor's IPO on the New York and Buenos Aires stock exchanges on April 10, 2007.

#### **SALE OF DISTROCUYO**

On September 28, 2007, EDF signed an agreement with Nucleamiento Inversor Sociedad Anonima (NISA) to sell its stake in Distrocuyo, a power transmission company and EDF's last asset in Argentina. The parties are awaiting local regulatory approval before finalizing the transaction.

#### **6.3.2.2** BRAZIL

#### 6.3.2.2.1 LIGHT

Light carries out an electricity generation, distribution, and supply business. It is located in the State of Rio de Janeiro covering a concession area of 10,970 km<sup>2</sup> and serves 31 towns (including Rio de Janeiro). Light also owns generation assets (mostly hydropower) with an installed capacity of 852 MW (*i.e.*, 1% of the power available in Brazil).

On March 28, 2006, EDF signed an agreement with Rio Minas Energia Participaóes SA (RME), a consortium of Brazilian companies, to sell a 79.4% stake in Light for US \$320 million. The sale was approved by French and Brazilian regulators and was completed on August 10, 2006. This left EDF with a 10% stake in Light, which was diluted to 6% after Banco Nacional de Desenvolvimento Economico e Social (BNES) exchanged its convertible bonds into shares. Light's remaining share capital is traded on the Brazilian stock exchange.

## 6.3.2.2.2 Norte-Fluminense

The EDF Group owns 90% of Norte-Fluminense, the company which

built and now operates the combined-cycle gas turbine at Norte-Fluminense in the State of Rio de Janeiro. This power plant has a capacity of 780 MW. Norte-Fluminense sells all of its generation to Light under a power purchase agreement (PPA).

#### 6.3.2.3 MEXICO

The EDF Group aims to get the most value from its businesses and manages them actively, which means that it may decide to sell some assets or begin new projects. As part of the company's strategy to focus on its core businesses in Europe and help in upgrading nuclear generation facilities worldwide, in early 2007 EDF began to sell its operations in Mexico.

The company signed an agreement on October 24, 2007 to sell to Gas Natural, a Spanish power producer, all its assets in Mexico for US \$1.448 billion. These assets comprise: five combined-cycle gas turbine plants with a total capacity of 2,233 MW (Saltillo, Altamira 2, Rio Bravo 2, Rio Bravo 3, and Rio Bravo 4); and Comego, the company that operates these power plants. and the 53 km natural gas pipeline (Gasoducto del Rio). This agreement amounts to a total value of US \$1.448 billion.

The sale was completed on December 27, 2007.

#### **6.3.2.4 UNITED STATES OF AMERICA**

The United States is the largest energy market in the world, with total sales of 3,670 TWh and a forecasted average annual growth rate of 2% between 2007 and 2010 (source: Energy Information Administration, 2006). The 2005 Energy Policy Act introduced incentives to encourage investments in nuclear power plants. These include a federal loan guarantee to reduce the borrowing costs of some types of construction loans, production tax credits for electricity companies, and standby support for regulatory risks. The procedures for receiving federal loan guarantees were finalized in October 2007, and nuclear plants are under development by many of the major US energy companies.

On July 20, 2007, EDF and US-based Constellation Energy (CEG) signed an agreement to create a 50/50 joint venture named UniStar Nuclear Energy LLC. UniStar will build, own, and operate European pressurized water reactor (EPR) nuclear plants in the US.

This joint venture follows a framework cooperation agreement established between the two companies on June 1, 2006, for purposes of supporting the construction of new-generation EPR nuclear facilities in the US.

Under the terms of the joint venture agreement signed on July 20, 2007, EDF has paid in an initial \$350 million of capital, and may contribute up to \$275 million of additional funding as approvals are granted to build EPRs at existing CEG sites. The first application of building and operating licence for the Calvert Cliffs 3 project has been filled on March 17, 2008 to the American Nuclear Regulatory Commission. The commissioning should intervene, according to the current timetable, at the end of 2015. In compensation, CEG will bring to the joint venture its holding in UniStar Nuclear and the rights to use its Calvert Cliffs, Nine Mile Point, and R.E. Ginna nuclear plants in order to build up to four standard EPRs. UniStar will be governed by an eight-member Board of Directors, comprising a Chairman and three members appointed by CEG, and four members among whom the President appointed by EDF.

US regulators have approved the joint venture agreement.

Also on July 20, 2007, EDF secured the right to purchase up to 5% of CEG's shares on the open market in the immediately following 12 months of the agreement and until 9,9% between the first anniversary of the agreement and the fith.

On December 31, 2007, EDF owns 3.1% in CEG.

Lastly the two companies have established a second cooperation agreement to study options for other joint projects in the US.

The US energy market incorporates a great deal of innovation, with substantial R&D activity for both upstream and downstream operations. Numerous companies and international organizations, including EDF competitors, are based in the US; in this context, EDF monitors this market on an industrial and strategic basis.

EDF participated in the formation of the NuStart Energy Development LLC consortium, set up in March 2004, which includes the major nuclear energy companies (Constellation Energy, Duke Power, Entergy, Exelon Generation, Florida Power & Light, Progress Energy and Southern Company) and constructors (General Electric, Westinghouse). The aim of the project is to launch and develop nuclear energy in the United States by 2014, by working on two "passive" reactor projects, Westinghouse's AP 1000 (Advanced Passive 1000 MW Reactor) and General Electric's ESBWR (Economic Simplified Boiling Water Reactor). Through its shareholding, EDF will have access to additional information, technical and economical, on these new generation reactors, which may be available on the market during the renewal program of the French nuclear power plants.

The Group is also present in the United States through EDF Energies Nouvelles in the wind farm operating and maintenance sector on behalf of third parties (see Section 6.4.1.1 ("New energies")).

## 6.3.3 Asia/Pacific

The EDF Group's activities managed by the Asia-Pacific Division mainly focus on China and the Mekong Delta, both significant growth areas.

The power market in Asia – China in particular – constitutes one of EDF's major growth drivers. The Group is investing in EPRs and other projects in the region that will give it access to state-of-the-art technology, as well as promote its industrial expertise, particularly in the nuclear area. This will give EDF a competitive advantage in the global arena, as it works to launch a new global nuclear program, penetrate the booming emerging markets for equipment, and shore-up its power generation fleet in France.

## 6.3.3.1 THE EDF GROUP'S ACTIVITIES IN CHINA

The EDF Group has been operating in China for the past 20 years, advising companies on nuclear and hydropower technologies. Today it is one of the country's largest foreign investors in terms of power generation, with its investments in coal-fired plants that have a total installed capacity of 3,720 MW. EDF has also formed partnerships offering new investment opportunities for nuclear and the more advanced coal-fired facilities, as well as wind energy and hydropower systems.

## NUCLEAR POWER GENERATION

• Daya Bay and Ling Ao

EDF directed the design, construction and commissioning of two 1,000 MW

nuclear reactors in 2004, then helped the owner, China Guangdong National Power Co. (CGNPC), build a similar Phase I plant at Ling Ao, which was started in 2002. EDF now assists CGNPC with the operation of these facilities. The high level of performance achieved by these nuclear plants illustrates the company's solid know-how in China.

EDF is currently helping one of GCNPC's subsidiaries, China Nuclear Power Energy Corporation (CNPEC), with Phase II of the Ling Ao project, which consists of building two additional 1,000 MW units on the site for start-up in 2010.

 First agreement signed for a foreign investor in China in nuclear power generation

Following the industrial partnership announced in October 2006, on November 26, 2007, EDF and CGNPC signed a joint venture agreement to build and operate two new-generation European pressurized water reactors (EPRs) at Taishan in the Guangdong province. Each of these two EPR units will have 1,700 MW of capacity. They will be designed by Areva to provide a high level of both safety and performance. Construction could begin in the fall of 2009 for commissioning in 2014.

Under the terms of the joint venture agreement, EDF will have an approximately one-third stake in the company owning the EPRs, Taishan Nuclear Power Company (TNPC). EDF will bring to the joint venture its skills in operating nuclear plants; CGNPC will contribute the site plus the engineering and operating skills it has obtained through over 20 years' experience in plants in Guangdong. EDF and CGNPC have also signed on November 26,2007, a global cooperation agreement to consider possible joint projects in China and around the world.

#### **COAL-FIRED POWER GENERATION**

• Figlec and Synergie

As of December 31, 2007, EDF wholly owned French Investment Guangxi Laibin Electric Power Company, Ltd (Figlec), the company which owns the 720 MW Laibin B power plant and 85% of Synergie, the company responsible for operating and maintaining Laibin B. The remaining 15% of Synergie is owned by Chinese partners. Laibin B was commissioned in November 2000 as part of a build, operate, and transfer (BOT) project, and will be transferred to the Guangxi government in 2015.

• Shandong Zhonghua Power Company (SZPC)

As of December 31, 2007, EDF held a 19.6% stake in Shandong Zhonghua Power Company (SZPC), which owns three coal-fired power plants with a total capacity of 3,000 MW. SZPC's other owners are two Chinese companies and CLP of Hong Kong. SZPC's plants were commissioned between 1987 and 2004, and will be gradually transferred to the Chinese government between 2020 and 2028.

### NATURAL GAS OPERATIONS

Buget

As of December 31, 2007, EDF held a 20% stake in Buget, a design, construction, and consulting firm specialized in natural gas distribution. Buget's other owners are Gaz de France, with a 20% stake, and Chinese partners.

#### HYDROPOWER GENERATION

EDF has been involved in hydropower technology since 1985, and its



engineering skills and consulting services are recognized in the industry. In fact, EDF has helped develop over half of the hydropower facilities in China.

#### OTHER BUSINESSES AND PROSPECTS

EDF and its Chinese partners are looking into possible investments in the wind energy sector, following the new law on renewable energies passed in China in early 2006.

In the area of power transmission and distribution, EDF has won several consulting contracts.

#### 6.3.3.2 THE EDF GROUP'S ACTIVITIES IN SOUTHEAST ASIA

The EDF Group's businesses in southeast Asia are focused on developing its electricity business in the Mekong Delta region, where Thailand and Vietnam are the primary growth drivers. This region offers opportunities for independent power plant (IPP) projects, such as Phu My 2.2 in Vietnam and Nam Theun 2 in Laos, a hydropower plant intended to serve the Thai market. EDF is studying possible partnerships for designing, building, and operating new fossil fuel, hydropower, and, for the long-term, nuclear power plants.

#### 6.3.3.2.1 VIETNAM

As of December 31, 2007, EDF held a 56.25% stake in Mekong Energy Company Ltd. (MECO), the owner of the Phu My 2.2 combined-cycle gas turbine plant. Phu My 2.2 has a generation capacity of 715 MW and was commissioned in 2005. It is the first independent power plant (IPP) project financed exclusively by foreign investors in Vietnam. MECO's other owners are international subsidiaries of Sumitomo Corporation and Tokyo Electric Power Corporation, Inc (Tepco), both Japanese companies. Phu My 2.2 was developed under a 20-year build, operate, and transfer (BOT) contract; EDF built the turnkey plant and operates it under a consulting agreement.

In order to meet the need for new-generation plants in southern Vietnam, EDF has contacted the Vietnamese government about potentially building advanced technology coal-fired and natural gas facilities.

#### 6.3.3.2.2 Laos

As of December 31, 2007, EDF first investor, holds 35% of Nam Theun 2 Power Company (NTPC). NTPC owns the 1,070 MW Nam Theun 2 hydropower plant that is scheduled to go into service in late 2009. NTPC's other owners are two companies from Thailand and one from Laos. EDF heads the consortium of NTPC owners and is overseeing the construction of Nam Theun 2. EDF will operate the plant for 25 years through its stake in NTPC; Thailand will purchase most of the electricity generated (around 95%).

## 6.3.3.2.3. THAILAND

EDF has a number of advisory agreements in the area of transmission and distribution.

## 6.3.4 Middle East and Africa

Various countries have invited private investors to finance, build and operate independent power plants (IPPs), including countries in North Africa, other parts of Africa, and the Gulf. The Group currently operates only in the Ivory Coast power market.

The Group is seeking to make the best use of its assets and to manage

them effectively, a strategy that may lead to sales, as is the case in Egypt and Morocco, or to the launch of new projects, as applicable.

#### **6.3.4.1 IVORY COAST**

As of December 31, 2007, EDF indirectly holds 32.85% of the owner company (Azito Energie) and directly holds 50% of the operating company for the Azito power plant (Azito O&M). Located near Abidjan, the power plant is comprised of two gas turbines, each with a total capacity of 150 MW, fueled by natural gas from the Ivory Coast itself. It supplied 1,860 GWh of electricity in 2007. All generation is sold back to the national Ivory Coast operator, which has satisfied its contractual obligations since the start of commercial operations of the power plant in 1999.

On April 17, 2007, EDF sold its 51% stake in Enerci to Gaz de France, which already owned the other 49% of the company. Enerci has a 12% stake in the largest gas field in the lvory Coast, Foxtrot. This sale does not affect the gas supplied to the Azito plant; which is supplied by SOGEPE (the company operating all of lvory Coast's state-owned energy assets and investments), which purchases most of the gas produced at Foxtrot.

#### 6.3.4.2 MOROCCO

On September 5, 2007, EDF signed an agreement to sell its 84.5% stake in Compagnie Eolienne du Détroit (CED) to Theolia. CED operates a 50 MW wind power facility in northern Morocco. The sale was finalized on January 4, 2008.

## 6.3.4.3 SOUTH AFRICA

Due to the robust growth outlook for the South African economy, the South African government plans to double the country's installed power generation capacity (from 42 GW to 80 GW) by 2030, with a significant portion of the increase coming from nuclear power. In the first half of 2008 the government will select a single pressurized water technology for use in 3 GW nuclear plants to go into service in 2015 (at the earliest), with an option of up to an additional 20 GW. EDF has been operating in South Africa through Eskom, the national utility, since 1978, and if the government selects EDF's European pressurized water reactor (EPR) technology, the company would have an opportunity to invest in South Africa's nuclear program.

On March 30, 2007, EDF sold its 50% stake in PNES (Phambili Nombane Energy Services). The shares held by EDF were purchased by PNES itself.

### **6.3.4.4** ACCESS TO ENERGY MISSION

For the past 12 years, EDF has been working to give more people in developing countries access to electricity. Most of these efforts are currently focused in Africa.

EDF achieves this goal through partnerships with other companies in the industry, such as Total and Nuon, and will henceforth systematically seek to work with local companies on each project, so that they can take over once the operations become profitable and sustainable.

As of December 31, 2007, EDF owned 70% of Koraye Kurumba, the electricity utility serving the Kayes area in northeast Mali, 50% of Yéelen Kura, the electricity utility serving southern Mali, and 65% of KES, an company that generates and distributes electricity and markets bottled gas in the Kwazulu Natal province.

# 6.4

## Other activities and transverse functions

## 6.4.1 Other activities

#### **6.4.1.1 NEW ENERGIES**

The development of renewable energy sources has become a reality in Europe and in the United States. In 2007, 8,662 MW of wind power were installed in the European Union of which 3,522 in Spain (source: Ewea) and 5,244 MW of wind power were installed in the United States (source: Awea and Ewea) ie two times as in 2006. The combined installed of wind power in these two areas now amounts to more than 70,000 MW wind power and more than 90,000 MW worldwide. This development concerns wind power to a considerable extent, with biomass in second place and solar power being seen as a future growth area which is already gaining importance. Hydropower has reached saturation in these countries. The EDF Group is the European leader in renewable energies, as a result of its hydropower. The EDF Group's ambition is to develop all forms of renewable energy and, in particular, wind power generation. EDF also intends to favor the emergence of new technologies in conjunction with R&D and to develop generation capacities in wind power, hydropower, solar energy, biomass, biofuels, and geothermal technology. This process is in line with the Group's sustainable development policy (see Section 6.4.3.2 ("Environmental policy")).

## 6.4.1.1.1 DESCRIPTION OF NEW ENERGIES

## WIND POWER

The wind turbine or aero-generator is a wind sensor, where the force of the wind drives rotor blades attached to an electrical generator. For one MW of installed capacity, the average annual electricity generation can vary from 2 to 4 GWh, depending on the quality of the site and the type of machines used. The investment amount is of approximately €1.3-1.5 million per MW.

The progress of the wind power has been particularly strong in Europe since 1997, with the adoption of the Kyoto protocol and the reinforcement, in some countries, of the support of electric generation through wind power.

In addition to strengths in the wind power sector, through EDF Energies Nouvelles, the EDF Group has skills which are spread over different entities, such as the Research and Development Division for technical monitoring and expertise and the Generation and Engineering Division for project management, engineering and contracting.

Finally, the subsidiaries of EDF Energy and mainly Edison also have wind farms in operation and projects in development.

The industrial base in operation as of December 31, 2007, including all subsidiaries amounted to more than 1,600 MW of assets owned by project companies, in which the Group has an interest, whether controlling or not (over 1,200 MW held by EDF Energies Nouvelles).

The key geographical areas for future developments are the United Kingdom and Italy, where there is a quota system, France, and the rest of Europe and the United States. The objective is to build critical masses in countries where the profitability figures are the most attractive.

#### SOLAR POWER

Photovoltaic solar power (electricity generation) is not the same as thermal solar power (heat production).

Photovoltaic panels were originally developed for independent applications which were not connected to electricity networks. In the last years, under the impetus of the renewable energy policies, the photovoltaic market, which is growing at the rate of 30 to 40% a year, has been developing mainly in the network-connected applications.

EDF Group controls 50% of the Tenesol group, jointly with Total, which manufactures and markets photovoltaic systems around the world.

In South Africa, Morocco and Mali, EDF is present in rural electricity companies which aim to install photovoltaic kits in more than 80,000 dwellings.

Confronted to the two major challenges of the photovoltaic, which are the supply of silicon of photovoltaic quality and the reduction of its cost, EDF is investing in research on future technologies: new processes of silicon purification and the clarification of the corresponding photovoltaic cells, new processes of manufacturing photovoltaic modules and an ambitious R&D project for the development of thin-film photovoltaic technologies (the CISEL project) (see Chapter 11 ("Research and development policy, patents and licenses")).

Finally, EDF offers solutions using renewable energy sources to private and local authority customers. The objective is to position itself for future growth, through integrated residential, service sector and local authority packages based on photovoltaic cells, thermal solar power and heat pumps.

#### GEOTHERMAL ENERGY

The temperature of the rocks in the earth's crust increases with depth: on average, 3 degrees Celsius every 100 meters. In some regions of the globe, the earth's heat reaches the surface as heat sources, water or steam. Hot water is exploited directly as heat: central heating in dwellings or greenhouse heating. Steam extracted from beneath the ground is used in the generation of electricity: it drives a turbine as it does in an oil-fired and coal-fired power plant. It is also possible to use hot and dry rocks as a source of energy. Water is circulated between two wells bored into the ground: water poured into one of the wells is heated as it passes into the dry rocks and emerges as steam (enthalpy).

There are high temperature resources in France's overseas departments. The EDF Group is present in this activity notably through its shareholding in the company Géothermie Bouillante (40%-owned) in Guadeloupe.

#### BIOMAS:

Technologies based on biomass mainly consist of burning certain waste, in particular from the timber and farming industries, to produce heat or electricity.

Thus, in addition to hydropower, wind power and geothermal, biomass can also, to a lesser degree, contribute to the objective of developing renewable energy sources.

Through its holdings, notably in Dalkia, the EDF Group owns shares in France and abroad in several dozen heating systems and small size generating facilities which are mainly fueled with wood.

EDF Energies Nouvelles owns a plant in Spain (Lucena) of a capacity of 26 MW, of which 13 MW come from biomass and 13 MW come from co-generation, and develops other projects in France and Italy.



#### OTHER TECHNOLOGIES

In anticipation of, and positioning itself for, new technological solutions, the EDF Group devotes significant resources to Research & Development areas which may prove to be vehicles for growth in the medium term: tidal energy (submarine turbines using the energy in marine currents, in the same way that wind generators use the energy from air currents) and biomass gasification, as well as areas that have already been discussed (thin film photovoltaic cells, deep geothermal).

## 6.4.1.1.2 EDF ENERGIES NOUVELLES

EDF's development of renewable energy sources is undertaken mainly by EDF Energies Nouvelles (formerly SIIF-Energies).

## (A) HISTORY OF EDF GROUP'S SHAREHOLDING IN EDF ENERGIES NOUVELLES

In October 2000, EDF acquired a 35% stake in the share capital of SIIF-Energies, a company incorporated in 1990 in order to operate thermal and hydroelectric power plants. In December 2002, EDF raised its holding to 50%.

EDF Energies Nouvelles initial public offering took place in November 2006. Its shares were listed on Euronext Paris S.A.'s Eurolist on November 28, 2006. Following the initial public offering, the share capital of EDF Energies Nouvelles breaks down as follows: 50.00% is held by EDF, 25.09% by the Mouroutoglou Group and 24.91% by the public (including employees).

In order to organize their relationship following the initial public offering of EDF Energies Nouvelles, the EDF Group and Pâris Mouratoglou entered into a shareholders' agreement that defines the EDF Energies Nouvelles company project, determines the allocation of the company's Board of Directors seats, and sets corporate governance rules and liabilities related to the transfer by Pâris Mouratoglou and SIIF Luxembourg (the "Mouratoglou Group") of all or part of their shares of EDF Energies Nouvelles. The provisions of the shareholders' agreement came into force the same day as the EDF Energies Nouvelles shares became listed on the Euronext Paris' Eurolist.

Under the terms and conditions of the shareholders' agreement and of the agreement entered into on July 2006, the EDF Group has a preemptive right if the Mouratoglou Group transfers part or all of its ownership to an identified third party. Moreover, if the Mouratoglou Group holds less then 10% of the share capital of EDF Energies Nouvelles (following the initial public offering), the shareholders' agreement provides that the Mouratoglou Group can require the EDF Group to purchase the remaining shares through a put option. Similarly, if the Mouratoglou Group does not exercise the put option, the EDF Group may require the Mouratoglou Group to sell its remaining shareholding in EDF Energies Nouvelles to the EDF Group through a call option. Finally, Pâris Mouratoglou committed himself, under the shareholders' agreement, not to carry out any business, directly or indirectly through a subsidiary, that could be in competition with the business of EDF Energies Nouvelles and its subsidiaries, in French territories or in any country where the company conducts or will conduct business.

Due to the existence of this shareholders' agreement, the EDF and Mouratoglou Groups have filed a declaration with the AMF on November 13, 2006, stating that they were acting in concert with respect to EDF Energies Nouvelles.

In addition, the Mouratoglou Group and the EDF Group entered into an agreement on July 17, 2006, in order to acknowledge the completion of several sales of EDF Energies Nouvelles' shares and to state certain provisions in connection with the initial public offering. The reciprocal call and put options provided for in the shareholders' agreement were also included in this agreement. An amendment of this agreement was made on November 10, 2006, in order to, notably, reflect the division by ten of EDF Energies Nouvelles' shares' par value, as decided by the extraordinary Shareholders' Meeting held in September 18, 2006.

Under the terms of an agreement signed on July 17, 2006, EDF's remaining financial commitments include: (i) deferred payment for the 4,674,963 EDF Energies Nouvelles shares purchased from the Mouratoglou Group during the IPO, which allowed EDF to keep its 50% holding; and (ii) an adjustment to the price of shares sold before the IPO. EDF paid the Mouratoglou Group an initial €119 million on June 25, 2007 upon the Mouratoglou Group's request, and the remaining €124 million was paid in full on December 21, 2007.

#### (B) EDF ENERGIES NOUVELLES ACTIVITIES

EDF Energies Nouvelles carries out several activities:

- development, construction and operation of electricity generation assets, mainly from renewable energy sources;
- sales to third parties of electricity generation assets based on renewable energy sources which it has developed and built; and
- operation and maintenance of wind farms on behalf of third parties and on its own behalf, mainly in the United States.

EDF Energies Nouvelles is present in European countries that have a strong development potential for renewable sources of energy, especially wind power (France, Portugal, Greece, the United Kingdom and Italy), as well as in the United States. EDF Energies Nouvelles also carries out activities in Belgium, Spain, Germany and Bulgaria.

The following table sets forth the breakdown by country of the installed capacity of EDF Energies Nouvelles (including all subsidiaries) as of December 31, 2007.

(Installed capacity at December 31, 2007)	Total <sup>(1)</sup>	Net <sup>(2)</sup>
WIND POWER		
France	73.8	57.8
Portugal	143.8	86.6
Greece	111.4	110.1
Italy	164.1	77.9
UK	103.2	103.2
Germany	3.0	3.0
US	618.6	432.8
Total Wind Power	1,217.9	871.4
Hydropower	128.4	101.4
Other operations	96.4	62.4
TOTAL	1,442.7	1,035.2

- (1) Gross capacity: Total capacity of the facilities in which EDF Energies Nouvelles has a stake.
- (2) Net capacity: Capacity corresponding to EDF Energies Nouvelles' stake.

Besides wind power, EDF Energies Nouvelles also operates in small scale hydropower (with 128 MW total installed as of December 31, 2007), biomass (with 13 MW total installed as of December 31, 2007), photovoltaic solar power, and, as part of its traditional business, fossil fuel and cogeneration power plants (82.3 MW total installed as of December 31, 2007).

During 2007, EDF Energies Nouvelles continued to pursue its development in wind power, the primary focus of its growth, and accelerated its development in the solar sector, one of its major growth areas.

EDF Energies Nouvelles' wind power capacity have reached 871,4 MW (net) and are in increase of 43% on the year. As part of its business to build and sell turnkey facilities, EDF Energies Nouvelles also constructed two large-scale wind farms for third parties in the US with a total capacity of 292 MW; these wind farms have since been sold.

As of December 31, 2007, EDF Energies Nouvelles also had 1,095 MW of total wind power capacity under construction, and projects underway covering an additional 10,000 MW. The company accelerated the pace of new wind power construction in 2007, most notably in France where 13 wind farms with a combined 328 MW of capacity are being built, and in Portugal where the large scale 240 MW Alto Minho wind farm and 112 MW Arada wind farm are being built. EDF Energies Nouvelles also signed four large operations and maintenance contracts in 2007, for a total capacity of 868 MW.

EDF Energies Nouvelles has continued its long-term turbines supplying strategy. News contrats have been signed on 2007 with repower and General Electric for turbines delivery in Europe and United-States in 2008, 2009 and 2010. On December 31, 2007 EDF EN has secured a total of 2,721 MW of turbines for the years 2008, 2009 and 2010.

The company stepped up its investments in photovoltaic technology in 2007. The solar energy market is being driven by government incentives, and has expanded rapidly with significant technological advancements. EDF Energies Nouvelles has procurement agreements in place to cover its short- and medium-term needs for the photovoltaic modules used in its solar power stations. The biggest contract is with First Solar, for 230 MWc to be supplied between 2007 and 2012. EDF Energies Nouvelles has solar energy projects underway primarily in Spain, Greece, Italy, Portugal, France, and the US, to build stations for its own use and for third parties.

In the field of biofuels, EDF Energies Nouvelles acquired a 25% stake in Alco in 2007. Alco, based in Belgium, is the largest ethanol distributor in Europe. This transaction involves the construction of a first-generation biofuel production unit in Ghent, Belgium.

EDF Energies Nouvelles had 628 employees as of December 31, 2007.

## 6.4.1.1.3 OTHER HOLDINGS IN THE RENEWABLE ENERGY SECTOR

### EDF ENERGIES NOUVELLES RÉPARTIES (EDF ENR)

EDF ENR jointly-owned by EDF and EDF Energies Nouvelles. This company applies EDF's developments in renewable energy produced in the consumption place (e.g., rooftop solar panels, solar water heaters, heat pumps, and wood heaters). EDF ENR operates in two ways:

- as a company with a business model focused on providing distributed energy systems; and
- as a holding company for EDF's distributed renewable energy subsidiaries.

## **SUPRA**

Supra is 82.36% owned by EDF ENR, and manufactures fireplaces, wood stoves, and fireboxes sold under the Supra and Richard Le Droff brands. EDF acquired the company out of a desire to expand its wood fuels business, as wood is the leading renewable energy source used in building construction.

#### TIRU

TIRU is 51% owned by EDF, 25% by Suez, and 24% by Veolia. It is involved in recycling household waste into electricity and urban heating systems. A pioneer in renewable energy, it has always used environmentally-friendly methods for generating electricity. In 2007, the company's 22 biomass and heat treatment plants transformed 4 million tonnes of waste into 530,000 MWh of electricity and 2,900,000 MWh of steam power.

TIRU's treatment plants help reduce greenhouse gas emissions by burning the biomass (organic and plant waste) found in waste bins. Household and biodegradable waste are continuously being produced; and every tonne of household waste that TIRU recycles saves 0.2 tonnes of oil. Therefore the 4 million tonnes burned at its plants every year save 2.2 million barrels of oil. TIRU is one of EDF's subsidiaries devoted to promoting the use of renewable energy.

#### **6.4.1.2** ELECTRICITÉ DE STRASBOURG

Electricité de Strasbourg is a French public limited company (*Société Anonyme*); EDF owns 88.34% of its shares which are traded on Eurolist by Euronext Paris. The company's other main shareholder was Electricité de Laufenbourg, a Swiss company, until it sold its 13.8% stake to EDF in September 2007. The remaining Electricité de Strasbourg shares are held by the public.

Electricité de Strasbourg distributes electricity to 376 municipalities in the Bas-Rhin region, and has 376 concession agreements, renewed between 1993 and 1999 for a 40-year term, which serve approximately 80% of the population of the Bas-Rhin department. Due to its electricity distribution business, Electricité de Strasbourg is subject to legal and operating restrictions related to the opening up of the markets and therefore created an independent distribution network operator on January 1, 2004, within the integrated company.

In order to comply with the French Law requiring electricity companies with more than 100,000 customers to legally separate their grid operation and power supply businesses, Electricité de Strasbourg in June 2007 decided to set up a separate power supply subsidiary.

Electricité de Strasbourg sells electricity to approximately 470,000 customers, including almost 430,000 new sites that became eligible on July 1, 2007. The company sold 6.5 TWh of electricity and 0.5 TWh of gas in 2007.

Electricité de Strasbourg, as a non-nationalized distributor, benefits from the specific purchase conditions (aligned on a specific tariff, called sale tariff) for its regulated customers. On the contrary, the other customers will be supplied under conditions following the energy market logic (by operating on the private market and on Powernext), being understood that for approximately 43% of its needs. Electricité de Strasbourg managed to enter into long term agreements to have access to generation.

Electricité de Strasbourg's management has started developing the company's 2008-2012 strategic plan, and presented the key growth areas to the company's Board of Directors in December 2007.

#### 6.4.1.3 DALKIA

Dalkia is a leading European energy services provider, offering a full range of services with excellent coverage throughout France, as well as substantial operations across Europe. Dalkia and its subsidiaries



generated a total of €6,943.4 million of revenue (based on 100% of the revenues of Dalkia and its subsidiaries) in 2006 (source: the 2006 Dalkia annual report).

#### DALKIA'S BUSINESSES

Dalkia helps companies use energy as efficiently as possible through a variety of energy management services, in areas such as heating and cooling systems, thermal and multi-technology applications, industrial utilities, installation and maintenance of generating equipment, full-service facilities management, and electrical services for public grids.

Dalkia also promotes renewable and alternative energies, including cogeneration, biomass, geothermal power, household waste incineration, and heat recovery systems from manufacturing processes.

#### EDF'S STAKE IN DALKIA

At December 31, 2007, EDF owned 34% of the shares and voting rights of Dalkia's holding company, which is a simplified joint-stock company. EDF acquired this stake in December 2000 through transactions including an in-kind contribution to Dalkia of some of EDF's energy services subsidiaries. Veolia Environnement, a French company listed on Eurolist by Euronext and the NYSE stock exchange, owns the remaining 66% of Dalkia; EDF had a 3.91% stake in Veolia Environnement at December 31, 2007.

#### OWNERSHIP AGREEMENT

EDF and Veolia Environnement signed an ownership agreement for Dalkia on December 4, 2000, which was later modified on April 19, 2005. This agreement contains a change-of-control provision under which each party has the right to purchase the other's entire stake in Dalkia if the other were to be controlled by a third party competitor. The clause also gives the parties a preemptive right if Dalkia shares are sold to an outside buyer.

## **6.4.1.4 OTHER EQUITY INTERESTS**

In addition to interests in non-nationalized distributors (SMEG, Enercal, Electricité de Mayotte, and EDSB), the EDF Group holds interests in industrial companies. These companies contribute, in their respective business sectors — generation, fuel, engineering — to the Group's objectives, and in particular the Generation and Engineering Division, ensuring the performance in the short and medium term of EDF France's generation asset portfolio. These companies are as follows:

- Cofiva, a holding company of the EDF Group, which specializes in engineering;
- SAE, which specializes in fuel transmission and trading on behalf of the EDF Group;
- Socodei, which specializes in the treatment of low-level waste;
- Soporlif, which operates the Gardanne circulating fluidized bed power plant furnace, and should be sold to SNET in 2008; and
- FAHRENHEIT, acquired in June 2006, which provides maintenance and repair services for air conditioning and heating systems for the general public.

## 6.4.2 Natural gas businesses

EDF operates in the natural gas end-market mainly through EDF Energy in the UK, EnBW in Germany, Edison in Italy, and EDF in France and Belgium (see Sections 6.3.1.1 ("EDF Energy"), 6.3.1.2 ("Germany – EnBW"), 6.3.1.3.1 ("Edison")). The Group also operates through EDF Trading , particularly in the wholesale natural gas market.

EDF's natural gas business supplied was slightly higher than 290 TWh<sup>29</sup> in 2007, placing it among the leading players in the European gas market in terms of volume handled. Approximately 60% of this was sold to customers, with the remaining 40% used within the company's own power plants to generate electricity.

## **6.4.2.1** REGULATIONS GOVERNING THE NATURAL GAS MARKET IN THE FU

Regulations governing the EU natural gas market are discussed in Section 6.5.2, "Legislation relating to the gas market."

#### 6.4.2.2 EDF'S STRATEGY FOR THE NATURAL GAS MARKET

The Group plans to continue expanding its natural gas businesses in France and across Europe. It intends to strengthen its position as a European-wide supplier by leveraging its access to electricity end-users and meeting the need for natural gas to be used to generate electricity.

The Group aims to obtain a 15% market share by volume of the natural gas sold to end users in the zone encompassing France, the UK, Germany, and Italy by 2015.

EDF's sales and marketing strategy in France consists of building the loyalty of its most profitable customers and enhancing the value of its customer portfolio by:

- targeting high-value customers;
- drawing on its portfolio of electricity customers to offer to supply dual electricity and gas products, in which they have expressed an interest; and
- capitalizing on its strong brand image, such as the "Bleu Ciel d'EDF" brand for residential customers in France.

EDF began selling natural gas in France in 2005. By 2006, sales reached 9.3 TWh, and by 2007, 17.9 TWh. As of December 31, 2007, approximately 120,000 residential customers and key accounts had chosen EDF as gas supplier.

The company has adopted a more aggressive approach to enter the German, Italian, and UK markets. EDF began selling natural gas in Belgium in 2006, through its EDF Belgium subsidiary. In the Netherlands, EDF is working with Delta to develop a combined-cycle natural gas plant.

As part of the merger between Gaz de France and Suez, EDF, along with other European power producers, has often expressed its support for Suez's acquisition of a stake in Distrigas, in order to comply with the counterparty requirements set forth by the European Commission. This transaction would enable the companies to take advantage of the strong synergies between Distrigaz and EDF – regional synergies (by bringing together the Belgian, French, German, and UK markets), as well as synergies in terms of assets and skills.

In order to support the growth of its gas business, the Group intends to secure its supply through a diversified, reliable, and flexible set of purchase contracts and physical assets, related to both natural gas (reserves and purchase agreements) and logistics capacity (pipelines, LNG transportation, and storage).

<sup>&</sup>lt;sup>29</sup> Sales and self-consumption in electricity and/or heat generating plants of the companies EDF Energy, EnBW, Edison, EDF and BERt (Hungary) are included for their total amount (100%) which means without taking into account the percentage of shareholding (including minority interests). The gas business of EDF-Trading and the sales of gas by Edison outside Italy are not taken into account in these floures.

The Group has decided to complement Edison's existing projects in southern and eastern Europe with new projects carried out by its various entities in northwestern Europe. These projects, some already underway and others planned for the future, are designed to allow the Group to negotiate with producers directly to make it less reliant on its rivals for supply and make its services more competitive. They should also expand the scope for synergies within the Group in terms of managing its upstream<sup>30</sup> and downstream<sup>31</sup> operations more efficiently. In addition, handling bigger volumes will give EDF greater negotiating power with large suppliers.

On January 14, 2008, EDF signed a protocol agreement with the Qatar government to work together on energy-related initiatives. Through this agreement, the world's largest LNG producer and the world's leading nuclear energy company will join forces to explore issues related to the use of civil nuclear energy and renewable energy. EDF and Qatar Petroleum International plan to take joint interests in natural gas projects carried out by EDF in Europe, and in long-term partnerships to research other opportunities.

## **6.4.2.3** SECURING NATURAL GAS SUPPLIES

EDF now has a portfolio of medium-term and long-term supply agreements (e.g., agreements with Statoil, Eni, and Gaz de France), as well as short-term supply contracts entered into under gas release programs (where incumbent utilities are required to provide gas). In addition, EDF Trading deals in the wholesale market in order to hedge EDF's risks. EDF also has contractual rights (either directly or through EDF Trading) to use existing pipelines between Belgium and the UK and planned pipelines in the Netherlands and Belgium, and to unload LNG cargo at the LNG terminal at Montoir-de-Bretagne, France. On February 13, 2008, a LNG supply agreement of 1 Gm³ per year from April 2009, signed with the Spanish group Gas Natural, has been added to this portfolio

The Group is gradually building a portfolio of natural gas businesses with a focus on two regions: Northwestern Europe and Southern Europe.

• Recent developments in Northwestern Europe

In 2006, EDF won a limited request for proposals (RFP) issued by the Dunkirk port authority Port Autonome de Dunkerque/PAD) in France to carry out, exclusively and for a period of three years, a feasibility study for the construction of an LNG terminal at the port. If the study shows that such a terminal would be viable, EDF will build and operate the terminal for commissioning in 2012. The terminal's capacity will be 6 billion m³/year in Phase 1 and at least 12 billion m³/year in Phase 2. PAD and EDF signed a protocol agreement on March 16, 2007 outlining the general

conditions under which the parties will work together and the terminal will be made available. In accordance with the April 4, 2007, decision issued by the French National Commission on Public Consultations (Commission Nationale du Débat Publique/CNDP), EDF and PAD, the project owners, jointly held a public consultation concerning the construction of the new terminal in the fall of 2007. During the closing meeting on December 6, 2007, the Special Commission on Public Consultations gave its recommendation for CNDP to inform the project owners that they can proceed with the construction. The CNDP is expected to issue its official decision in early 2008.

On June 7, 2007, the EDF Group, through its wholly owned EDF Trading subsidiary, signed a 4.5-year LNG optional supply contract with Ras Laffan Liquefied Natural Gas Company Limited II (RasGas), a Qatar company, under which RasGas will supply EDF with up to 3.4 million tonnes of LNG (the equivalent of 4.5 Gm³, or around 50 TWh) per year.

On May 31, 2007, EDF and EnBW each signed an agreement with IVG, a German company, to store natural gas at the Etzel salt caverns (near the German North Sea port of Wilhelmshaven) starting in 2010 and for a period of 35 years. The aggregated storage volume covered by these agreements is approximately 0.4 Gm<sup>3</sup>.

On June 13, 2007, EnBW and 4Gas signed a Memorandum of Understanding for a strategic partnership for the Liongas LNG terminal at Rotterdam, which is scheduled to go into service in 2011 and have a total capacity of 9 Gm³/year. Under the terms of this agreement, EnBW will have a 15% stake in the terminal and have the right to use 3 Gm³/year.

• Recent developments in Southern Europe

Edison is scheduled to begin using the Rovigo LNG terminal as soon as it opens in late 2008, to receive 6.4 Gm³/year of natural gas from Qatar for 25 years.

Edison is also involved in two pipeline projects: IGI (8 Gm³/year) after the European Commission on May 22, 2007, granted a conditional exception allowing third parties to use the pipeline³2; and Galsi (8 Gm³/year total capacity) between Algeria and Italy. Edison has signed a contract with Sonatrach to supply 2 Gm³/year of natural gas through Galsi for 15 years.

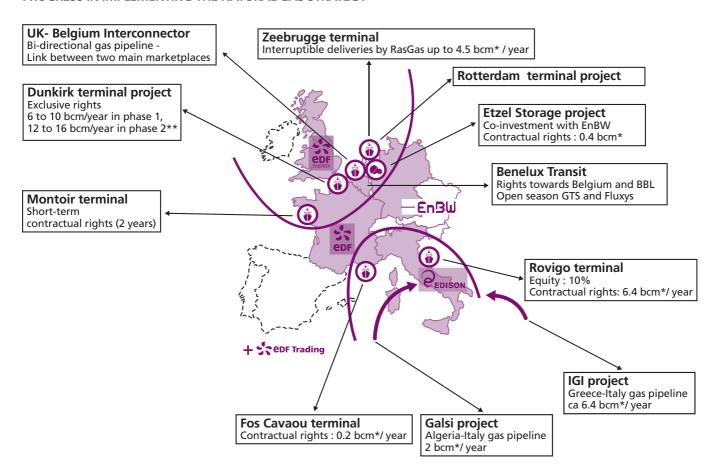
After third parties were given the right to use the Fos Cavaou LNG terminal scheduled to open in 2008, EDF, Distrigaz SA, ENI Spa, and Essent Energy Trading BV formed a consortium in June 2007 (for which EDF served as the bidder) in order to reserve 0.825 Gm³ of the capacity that will be freed for three years. EDF will be able to use 0.2 Gm³/year under the consortium arrangement.

<sup>&</sup>lt;sup>30</sup> Gas production, purchasing agreements, delivery, load matching, and purchases on the wholesale market

 $<sup>^{</sup>m 31}$  Contracts to supply end customers and power plants, and sales on the wholesale market.

<sup>32</sup> This exception gives the pipeline owners, Edison and Depa, the right to use the pipeline.

### PROGRESS IN IMPLEMENTING THE NATURAL GAS STRATEGY



\*Rights owned by EDF or its subsidiaries

\*\* Total project capacity

# **6.4.3** Sustainable development policy and public service

The EDF Group, which has a historic tradition of public service and awareness of environmental issues, has long been concerned with sustainable development and has now adopted it as a major strategic focus. This firm commitment is continually being strengthened. Responding to the Group's major challenges and implemented day by day through corporate choices and actions in application of its environmental and social policies, this commitment relies on a network-based internal organization and an approach to corporate governance that is aimed at dialogue and transparency.

## **6.4.3.1** ETHICS AND GOVERNANCE: EDF'S COMMITMENT TO SUSTAINABLE DEVELOPMENT

#### 6.4.3.1.1 COMMITMENT TO SUSTAINABLE DEVELOPMENT

In 2001, the Group launched its sustainable development action plan "Agenda 21," committing itself to respect the ten principles of human rights, labor standards and environmental protection formulated in the United Nations Global Compact.

In 2003, after a process of dialogue and consultation with employees and subsidiaries, the Group's ethical approach led to a commitment to respect the five core business values: respect for the individual; environmental responsibility; efficiency; commitment to solidarity; and insistence on integrity. At the end of 2007 a new set of guidelines, the "Ethical Agenda," was disseminated throughout EDF and a copy was sent

individually to every employee. To strengthen this ethical framework, each operational department is required to appoint an Ethical Correspondent; these correspondents constitute a local network linked to the ethical alert plan which is controlled centrally by the Ethics Director.

The Group's ethical guidelines direct the ethical commitments of the subsidiaries and the codes of conduct applied in various sectors and activities. They also underlie fundamental procedures such as recruitment, training, and performance assessments.

The Group's commitment to Sustainable Development is embodied in a series of more specific commitments:

- in 2005 the Group signed a public service agreement with the French government summarizing the commitments and goals that the distributor, transmitter, and supplier of energy must achieve as part of the public service obligations imposed on them by the government (see section 6.4.3.4 ("Public service in France"));
- the Group's three-year Corporate Social Responsibility agreement, signed on January 24, 2005, with employee representatives worldwide, was extended for an additional year at year end 2007. It includes ethical, social, environmental and corporate commitments to employees;
- in June 2005 the Group updated its environmental policy, focusing on action to combat climate change and conserve global resources by controlling the impact of industrial activity. In this context, in May 2006 the Group adopted a biodiversity policy detailing ways of assessing

impacts, conserving and restoring natural environments, providing public information, and increasing public awareness;

- on the social front, in September 2006 EDF endorsed the National Diversity Charter. In October, under its corporate social responsibility agreement, a three-year agreement was signed covering responsible subcontracting to ensure that all purchasing conforms to criteria of ethical and corporate responsibility (see section 17.5 ("Equal opportunity"));
- in November 2007 the Group defined the major themes and objectives of its corporate social policy.

#### 6.4.3.1.2 TOOLS FOR IMPLEMENTING SUSTAINABLE DEVELOPMENT

Implementation of the commitment to sustainable development is a primary managerial focus which permeates all areas of our business and every specialist activity.

The Group has a Sustainable Development Department dedicated to stimulating, coordinating and supporting all action taken by operational departments to implement our Sustainable Development commitments and report the results.

The implementation and monitoring of the corporate social responsibility agreement is assured primarily by an annual review and a discussion committee at the Group level (see section 17.6.3 ("Social dialogue and representation of Group employees")).

The Group also has an environmental management system (EMS) that applies to all Group units. In 2002 EDF was granted ISO 14001 certification, which was renewed in 2005 for an additional three years. In 2006 the EMS was streamlined so that all actions, objectives and indicators could be harmonized with the Group's environmental policy commitments, guided by an executive committee and theme-based groups. It is worth noting that half of the Group's contribution to profit sharing granted to EDF employees depends on reaching EMS targets.

Before being submitted to the Commitments and Holdings Committee, the Group's main projects are reviewed to ensure as far as possible that they do not conflict with our Sustainable Development commitments.

### 6.4.3.1.3 DIALOGUE, TRANSPARENCY, EVALUATION

The Group has adopted a range of approaches to exchanges of views and quality dialogue with all stakeholders. This flexibility is evident in the dialogues maintained on industrial sites through the liaison and information committees, as well as in partnerships with non-governmental organizations.

At the central level is now a Sustainable Development Panel of outside independent experts. The panel, chaired by an expert from outside the Group, has a consultative role in Group planning and critically assesses how EDF fulfils its commitment to sustainable development.

This commitment to sustainable development is also a commitment to transparency for stakeholders, which means regular reporting to the Board of Directors, particularly in connection with the annual business report and the Sustainable Development Report. This reporting follows indicators derived from the criteria in the Global Reporting Initiative. The Group is now asking its statutory auditors to monitor the quality of these environmental and social indicators. The first stage of this process involved an audit of 2005 and 2006 data to track the indicators, which led to the granting of a first-level attestation for "agreed procedures." For fiscal year 2007 the Sustainable Development Department has reached a higher level of attestation, "moderate assurance" on the data of the entities audited by the auditors.

The Group publishes sustainable development reports that are used as a basis for assessment by rating agencies and non-financial analysis departments acting on behalf of investors. In 2005 EDF was listed on the ASPI, an "ethical index" prepared by the French rating agency Vigeo that evaluates 120 corporations based on their sustainable development performance.

#### **6.4.3.2** ENVIRONMENTAL POLICY

In every EDF entity, the EDF Group implements its environmental and biodiversity policies to guide production, sales, R&D, and stakeholder relationships.

#### 6.4.3.2.1 FIGHTING CLIMATE CHANGE

As an energy corporation, EDF is involved in challenges at a global level. It is an active participant in both international climate change negotiations and the implementation of the Kyoto Protocol and the European ETS Directive (emission quotas, flexibility mechanisms).

### 6.4.3.2.1.1 THE GROUP'S CO<sub>2</sub> EMISSIONS STRATEGY

The EDF Group is Europe's biggest energy producer, but, due to the proportion generated by its nuclear and hydropower stations in its generation mix it also has one of the lowest rates of CO<sub>2</sub> emissions. In France, 95% of electricity generation emits no CO<sub>2</sub>, keeping its specific emission rate to less than 50g CO<sub>2</sub>/kWh compared with the European average of around 400g CO<sub>2</sub>/kWh. The EDF Group's specific emissions rate at a global level was 120g CO<sub>2</sub>/kWh in 2007 (outside Edison and Dalkia) (EDF 's estimations).

The Group's ambition is to remain the electricity producer with the lowest  $CO_2$  emissions per kWh among the seven biggest European producers based on its policy of optimizing the operation of its assets, its investment policy, its creation and promotion of commercial proposals and advice on energy use to all end users.

EDF has a number of tools for reducing its greenhouse gas emissions, including, in the short term, optimizing its current plants, taking due account of operating methodologies (by factoring in carbon costs when ranking generating methods), and improving efficiency; it is also active on the emissions trading and electricity markets. In the longer term, the most important currently available tools are modifications to generating equipment (modernizing power stations, conserving hydroelectric potential, drawing on sources of renewable energy and minimizing the most polluting methods); developing services to help customers manage their energy demands; exploiting renewable energy sources; and using the project mechanisms proposed in the Kyoto Protocol. To facilitate the performance of the commitments of the Kyoto Protocol, it is possible to use "flexibility" mechanisms in addition to policies and measures implemented at the national level. These mechanisms are:

- emission quotas: this measure allows to buy or sell emission rights among industrialized countries;
- concurrent implementation: it allows a developed country to investment in another developed country in order to reduce greenhouse gas emissions outside its national territory and to benefit from emission credits generated by the reduction thus achieved;
- clean development mechanism: it is similar to the previous mechanism described, but concerns investments made by a developed country in a developing country.

EDF is now studying the possible circumstances in which investment projects could factor in some use of these mechanisms.



#### 6.4.3.2.1.2 DEVELOPMENT OF RENEWABLE SOURCES

The development of renewable sources of energy is at the heart of the EDF Group's strategy, with the aim of developing a sustainable and profitable presence in the renewable energy sector in both France and Europe through the industrial management of mature plants and technological innovation in areas that are still under development.

These developments include centralized power generation projects (e.g., the construction of a hydroelectric power project at Nam Theun 2 in Laos); semi-centralized projects and decentralized projects, which comprise a wide range of initiatives for energy management (included in the building, in particular: thermal and photovoltaic solar energy, heat pumps, wood-fired central heating). The EDF Group is also focusing on photovoltaic energy throughout the value chain: investments in silicon technology; manufacture of panels by the subsidiary Tenesol; development of ground-based solar power systems; new photovoltaic products, etc. Thereby, the EDF Group intends to treble, whether alone or in partnerships, its installed capacities in renewable sources (except hydraulic) by 2012.

#### 6.4.3.2.1.3 R&D

A substantial proportion of the R&D budget is devoted to non- ${\rm CO_2}$ -emitting technologies.

Environmental R&D projects focus on the whole range of electricity issues, both upstream and downstream, including:

- research on CO<sub>2</sub> capture and storage techniques;
- nuclear technology: fourth-generation reactors which will eventually replace EPRs; geological storage of radioactive waste;
- decentralized generating technologies: micro-cogeneration, fuel cells, offshore wind farms, new solar energy technologies, biomass gasification, etc.;
- intelligent management of networks and metering systems, combining centralized and decentralized production;
- efficient use of electricity, e.g., more efficient heat pumps, electric cars, rechargeable hybrid vehicles.

#### 6.4.3.2.1.4 DEMAND SIDE MANAGEMENT (DSM)

EDF is heavily committed to DSM for all types of customer by offering them plans to suit their needs. The aim is to extend this effort by adding a  $\rm CO_2$  emission reduction component which will enable customers to make their own contributions to fighting climate change.

The Group's marketing proposals focus on energy saving and energy efficiency. In France its plans are increasingly predicated on eco-energy efficiency and reducing CO<sub>2</sub> emissions. For example, for buildings the Group offers DSM services (insulation, renovation) and thoroughly integrated renewable energy sources (geothermal using heat pumps, photovoltaic and solar thermal energy, and biomass). EDF's commercial plans also allow customers to choose low- or non-CO<sub>2</sub>-emitting options (see section 6.2.1.2.2.3 ("Customers Division")).

EDF is also implementing this commitment in-house, working to reduce all its emissions by monitoring office construction and vehicle fleets and offering a DSM program for employees.

## 6.4.3.2.2 LOCAL MANAGEMENT OF ENVIRONMENTAL AND HEALTH IMPACTS

By setting up an EMS (environmental management system), EDF is not only complying with regulations but also demonstrating its resolve to continually improve practice and performance so as to protect both the public and the environment.

#### 6.4.3.2.2.1 AIR AND WATER QUALITY

#### Managing the impact of nuclear power plants in France

The management of radioactive effluents (liquid and gas) from nuclear power stations is subject to very strict regulation, and the Group's environmental policy expresses a firm resolve to limit the environmental and health impacts of its plants. Effective waste management depends not only on the efficiency of effluent treatment systems but also on operating methods.

Adjustments to the design and operation have already reduced radioactive waste to a very low baseline.

Following this initiative to manage radioactive effluents, the Group is now doing the same for chemical waste. Water cooling tertiary circuits are receiving particular attention owing to the high flow rates involved. In particular, biocidal treatments are proving effective in controlling microorganisms in these circuits.

Over and above monitoring its own plants, EDF also monitors the environment so as to measure the impact of the operations. The monitoring takes the form of radioecological and hydrobiological studies by independent laboratories and universities.

## Managing the impact of coal and gas-fired power stations in France

The environmental efficiency of coal and gas-fired power stations has improved steadily in response to tighter requirements arising from successive amendments to regulations. The ambitious program launched in 2005 to adapt and renovate the Group's coal and gas-fired capacity in France will improve this efficiency still further.

This program responds to the need to improve air quality, reduce atmospheric emissions and comply with greenhouse gas regulations while safeguarding electricity supplies and controlling the cost of fossil fuels.

The net result of these measures (installing combustion gas denitrification equipment, strengthening dust filters, changing to different fuels, optimizing combustion, etc.) is a significant reduction in specific emissions and a drop in the overall volume of emissions of  $\rm SO_2$ , nitrous oxide and dust per unit of electricity generated, complying with the two-stage implementation of the GIC directive on January 1, 2008, and January 1, 2016 (see section 6.5.4.3).

## Managing the impact of hydroelectric facilities

For a number of years, the EDF Group has committed to strengthen its role in water management, improve its knowledge of ecosystems, and reduce still further the impact of its activities on the environment by ensuring that ecology and sediments remain as far as possible unaffected.

The new French program for opening the management of hydropower schemes to competitive bidding challenges operators, including EDF, to develop operating methods that could further improve the balance between energy generation, other water uses and respect for the environment, particularly the coordinated management of catchment areas.

## 6.4.3.2.2.2 OTHER IMPACTS (WASTE, SOIL POLLUTION, ETC.)

EDF's industrial activities cause a certain amount of soil pollution. A survey is in progress to identify and classify all EDF's land holdings. This inventory should be completed in 2008. To date, of 1,620 sites surveyed, 72 are (more or less seriously) polluted and 375 may be polluted (pending the outcome of additional investigations).

A decree dated January 18, 2001, transposes into French Law EC Directive 96/59/EC of September 16, 1996, on the disposal of PCBs/PCTs and introduces a plan for the disposal of PCBs based on inventories compiled from declarations by owners of equipment containing PCBs. The deadline for disposal of all such PBCs is December 31, 2010. EDF, like all other owners of substantial amounts of equipment containing PCBs, has prepared a 'special disposal plan' which is included in the text of the governmental order dated February 26, 2003. Since then EDF has reported annually to the government agency concerned on the progress of its disposal plan.

EDF publishes an annual review of its management of conventional industrial waste arising from production activities and of R&D centers. The new OGIDE software now being installed provides a mechanism for generating an overview of EDF as a whole, together with a simple way of complying with the new regulations.

## 6.4.3.2.2.3 Managing emergencies and urgent threats to the environment

As part of its environmental analysis, each EDF unit identifies potential environmental threats which it might encounter. An action plan is then formulated for each threat and this plan is regularly tested so as to optimize response times and effective action. If an environmental threat does materialize, there is provision for action at a national level to alert the parent company and supply the required information to be passed on to governmental agencies and the media.

#### 6.4.3.2.3 CONSERVING BIODIVERSITY

Conserving biodiversity is now seen as a major environmental priority.

Biodiversity affects many areas of EDF's activity and this has prompted the development of a specific biodiversity policy. The policy was signed in May 2006 and implemented as part of the Group's environmental management system (EMS).

There are three main lines of action – understanding, conservation, and awareness – each of which is supplemented by the work of the EDF 'Diversiterre' Foundation.

#### 6.4.3.2.3.1 IMPROVING UNDERSTANDING OF BIODIVERSITY

The more biodiversity is understood, the better it can be conserved. Accordingly, EDF is running a large number of surveys on its sites.

On nuclear sites, hydroecological and radioecological surveys have been conducted over the last twenty years in collaboration with large public bodies such as IFREMER (the French institute for research into the exploitation of the seas), IRSN (the institute for radioprotection and nuclear safety), CEMAGREF (the center for research into agricultural machinery, rural engineering, freshwater systems and forests) and CSP (the government fisheries agency).

EDF also keeps a very close eye on the biodiversity impact of its hydroelectric facilities by monitoring terrestrial and aquatic fauna and flora and water quality.

#### 6.4.3.2.3.2 ACTIONS TO CONSERVE BIODIVERSITY

EDF is committed to working in partnership with local communities, associations, and governments both in France and abroad.

EDF runs a large number of long-term maintenance programs for open land bordering its sites, and these initiatives have had a favorable impact on biodiversity. Activities include listing species found on such sites, providing nesting boxes, monitoring bird populations, maintaining riverbanks near EDF sites, etc.

In the early 1980s EDF became involved in the restoration of major fish migration routes, investing particularly in the research and design of fish ladders. One of the largest in Europe came into service in 2006 at the Gambsheim barrage and will enable salmon to return to another stretch of the Rhine.

EDF has been involved in bird conservation since the early 1980s. This commitment assumed a new dimension in 2004 with the creation of the National Birdlife Committee, which assesses action to protect birds against power lines. The committee includes representatives of EDF and its electricity transmission and distribution units along with members of the Rhône-Alpes Ornithological Center and the *Ligue de Protection des Oiseaux* (Bird Protection League, LPO) as the official representatives of *France Nature Environnement* (FNE).

#### 6.4.3.2.3.3 BIODIVERSITY AWARENESS TRAINING

EDF provides biodiversity awareness training for its personnel and service providers, covering biodiversity issues, biodiversity actors, and associated regulations.

EDF also runs biodiversity projects to raise awareness among the general public, schools and local councilors.

#### **6.4.3.3** SOCIAL POLICIES

#### **6.4.3.3.1 MAIN CONCERNS**

EDF strongly believes that improving its efficiency in the environmental and social arenas is integral to its financial success.

Accordingly, in 2007 the Group introduced a new social policy to create and enhance ties with outside stakeholders, optimize and strengthen communication with vulnerable customers, and invigorate internal communication.

This policy stimulates, supports, and consolidates existing action plans by harmonizing them within the Group. Its guidelines reflect those of the UN Global Compact and are an integral part of the corporate social responsibility agreement and the public service agreement.

### **6.4.3.3.2 STRATEGIES**

The EDF Group's social policy takes stakeholder diversity (vulnerable customers, jobseekers, disabled persons, etc.) into account. It contributes to promoting eco-efficient energy and facilitates access of vulnerable individuals to essential services, improving living and working conditions for these groups, and promoting educational initiatives in keeping with the needs of the Group and its partners.

The main strategies of the EDF Group's social policy are:

- to facilitate access of vulnerable individuals to essential services by offering simple, tailor-made solutions to customers' difficulties, including advice on energy management; to assist young employees in launching their careers; and to provide an immediate response to people confronting a technical or environmental emergency;
- to forge closer links with communities by supporting local projects related to the EDF Group's business and improve quality of life, particularly by making available EDF's expert knowledge of project engineering; to offer advice on energy management as part of regional habitat renovation and insulation programs ("ANRU" urban regeneration areas in France; "Warm Zones" in England); and to help jobseekers find local employment generated by such programs;
- to contribute to energy education, particularly by developing proprietary training in its own and its partners' special areas of expertise while promoting diversity; to educate younger generations in energy management; and to take part in the European debate on corporate responsibility.



All personnel at the Group level are informed of developments in the social policy, and there is an ongoing dialogue on the subject.

#### **6.4.3.4 PUBLIC SERVICE IN FRANCE**

#### LEGAL DEFINITION OF PUBLIC SERVICE IN FRANCE

The fundamental principles of public service are set forth in Law no. 2000-108 of February 10, 2000, on the modernization and development of the public electricity service (see Section 6.5.1.2 "French legislation" below for a description of this regulation).

#### THE PUBLIC SERVICE AGREEMENT (CSP)

The public service agreement required by Article 1 of the Law of August 9, 2004, was signed on October 24, 2005. It is divided into three parts: EDF, EDF Réseau Distribution, and RTE-EDF Transport SA. It establishes the EDF Group's duties for the period 2005-2007 and the compensation mechanisms for public service work commissioned by the government under the law, together with the undertakings stipulated in the agreement (an integrated rate system, the CSPE (public service electricity contribution), and the TURP (tariff for the use of the public networks for the transmission and distribution of electricity)). The Law does not specify any fixed term for this agreement but requires a triennial performance review to be presented to Parliament. After 2007 the agreement will be updated to take account of recent developments.

#### THE PURPOSE OF THE PUBLIC SERVICE AGREEMENT

This agreement is intended to guarantee the public service in the context of a market that is being opened to competition.

## MULTI-YEAR EVOLUTION IN THE INTEGRATED TARIFF

In accordance with Article 1 of the Law of August 9, 2004, one of the commitments in the public service contract relates to the multi-year evolution in the integrated tariff. In accordance with Article 4 of the French Law of February 10, 2000, the integrated tariff for non-eligible customers and eligible customers that have not exercised their eligibility remains regulated. Article 4 specifies that such prices must cover "the total costs incurred (...) by EDF and the non-nationalized distributors".

Within the framework of these provisions, the French State and EDF have agreed in the new public service contract on the need to progressively modify the integrated tariff such that the general structure of sale tariffs and the structure that is specific to certain price options reflect the cost structure.

Regulated prices have increased by 1.1% since August 16, 2007. This evolution, slightly lower than inflation (on one year from July 2006 to June 2007) is applicable to the residential customers and to the companies which have chosen, in accordance with the opening of the market, to remain subject to the regulated price. This increase complies with the public service agreement entered into between EDF and the French state on October 24, 2005, which guarantees that the increase of the integrated tariffs for residential customers will not exceed the inflation rate over the first five years.

## OBLIGATIONS OF EDF (OUTSIDE NETWORK MANAGEMENT)

EDF's public service obligations relate to:

Access to the public electricity service and supply of electricity to non-eligible customers. This primarily entails an obligation to:

- supply electricity to non-eligible customers (who have not yet given proof of eligibility) and demand-side management. These duties are financed by the integrated tariff;
- promote social and territorial cohesion. Conditions for reimbursement

- by the CSPE of the costs arising from this duty and the integrated tariff are set forth in the Law of February 10, 2000;
- provide access to the public service. This is financed by the integrated tariff and the TURP.

Generation and supply, including an obligation:

- to implement an energy policy (programming investment over several years and helping reach targets; demand-side management, energy saving certificates, etc.);
- to continue generating electricity safely while protecting the environment.

EDF will generate the resources required for these commitments with revenues from the integrated tariff or by selling electricity to customers or on the open market.

Contributing to the security of the electricity network:

EDF has undertaken to make an agreement with RTE-EDF Transport governing the optimization of work on generation equipment and the availability of necessary resources to keep the network in good order.

#### **OBLIGATIONS OF THE NETWORK MANAGERS**

The network operators, EDF Réseau de Distribution and RTE-EDF Transport, have undertaken obligations in the public service contract with respect to the management of the public networks and the safety of the elctricity system. These obligations is financed by the network usage tariff.

These commitments relate, in particular, to network safety, the quality of supply, the safety of third parties and the protection of the environment, which are four areas where the expectations of customers and local authorities are particularly high.

In particular the French State estimates that RTE-EDF Transport will spend approximately €100 million per year for network safety.

The CRE's tariff proposal, approved on September 23, 2005 by the authorities was based on the assumption of stable investments.

## MONITORING OF THE PUBLIC SERVICE CONTRACT

The public service contract entered into between the French State and EDF in 2005 is the object of an annual monitoring by the parties and a report is transmitted every three years to the French Parliament. The Monitoring committee met for the first time in June 2006 in order to examine the 2005 report of commitments taken by EDF and the State. In Autumn 2006, this report was presented to the governance entities of the EDF Group (strategic committee of the Board of Directors for EDF and Supervisory Board for RTE-EDF Transport). The results of this first report are positive: they meet the figured goals and the quality commitments of EDF and guarantee the level of public service expected as for what concerns the distribution and transmission networks' management, of social and territorial cohesion and of political contribution to the national energy policy. The 2006 follow-up has been the subject of several preparation meetings between the French State and EDF during the year 2007. There was a follow-up meeting between the parties on January 2008. A triennal report will be made based on 2007 results and transmitted to the French Parliament. At the same time, a preparation of the next public service contract has been implemented at the end of 2007, on new bases, for an execution during the year 2008.

# 6.5

## Legislative and regulatory environment

The EDF Group entities are subject to various regulations in relation to their business. In particular, EDF is subject to the European legislation applicable to the electricity and gas markets, which has been transposed into French Law. EDF is also subject in particular to the regulations governing electricity distribution concessions and to the applicable environmental, nuclear and safety regulations.

The following discussion of legal and regulatory provisions is not an exhaustive description of all the legal and regulatory provisions applicable to the EDF Group.

# **6.5.1** Legislation relating to the electricity market

#### **6.5.1.1 EUROPEAN LEGISLATION**

The European directive 96/92/EC of the European Parliament and the European Council, dated December 19, 1996, relating to common rules for the domestic electricity market was the starting point for opening up the electricity market to competition.

This directive, which stated in particular the principle of the eligibility of the most important industrial customers, was repealed by the Directive 2003/54/EC of June 26, 2003 which set out common rules applicable to electricity generation, transmission, distribution and supply and which is the basis of the current French regulation of the electricity market.

This directive sets out arrangements for the organization and operation of the electricity sector, the rules concerning access to the market, the criteria and procedures applicable to tendering exercises and the granting of licenses, as well as public transmission and distribution network operations.

#### **OPENING UP THE MARKET**

The European directive of June 2003 sets out a timetable for opening up the electricity market to competition. All non-household customers, *i.e.*, private individuals or legal entities purchasing electricity not intended for their personal domestic use, including generators and wholesalers, became eliqible customers as of July 1, 2004.

With effect from July 1, 2007, all customers, including household customers, will be considered as eligible.

## Investigations concerning the energy sector

The European Commission announced, on June 13, 2005, a sector investigation, pursuant to Article 17 of regulation  $n^{\circ}$  1/2003 EC, in order to identify any possible distortions to competition and dysfunctionings whether behavioral or structural in the gas and electricity markets. This investigation came as an addition to the monitoring that is currently in place and conducted by the European Commission to ensure the application of European legislation related to energy, as well as in addition to a detailed report on the energy market, dated November 15, 2005.

The investigation essentially focuses on the electricity market, the proper operation of the wholesale markets and the manner in which prices are established, as well as the examination of the way in which national markets are integrating, the operation of cross-border interconnections, and the conditions of supplies. The investigation is also examining any possible barriers to entry on these markets, resulting from, for example,

long-term agreements. Finally, the investigation is analyzing the relationships between network operators and their subsidiaries as well as their parent companies, both for gas and electricity. On January 10, 2007 the European Commission published its "Final Report" and suggested an integrated group of measures for the 21st century concerning the energy field and climate change. This report includes, in particular, a presentation of the perspectives in relation to the European gas and electricity market.

The "Final Report" also confirms the five obstacles to the competitive electricity and gas markets, already mentioned in the preliminary report of February 16, 2006 (see Section 6.5.4.5.1.1 ("Presentation of the "Energy and climate change package")):

- wholesale markets generally retain the high level of concentration reached in the pre-liberalisation period, allowing the incumbent operators to raise prices;
- consumers are deprived of choice due to the difficulties for new suppliers to enter the markets. Insufficient separation of infrastructure and supply functions prevents new entrants from reaching the final consumer;
- there is no significant cross-border competition. New entrants in the gas market are unable to secure transit capacity on key routes, and integration on the electricity market is hampered by insufficient inter-connector capacity and long-term capacity reservations;
- new entrants cannot get the information they need to compete effectively. This lack of transparency benefits incumbents and undermines new entrants;
- prices are often not determined on the basis of effective competition, and many electricity users distrust the way prices are set.

On April 4, 2006, the European Commission had announced being "deeply committed to monitor the implementation of the legislation relating to the internal market for energy and to scrutinize all the laws adopted by the Member States, transposing the gas and electricity directives for compliance with it". It had also indicated having sent 28 formal notices to 17 Member States, including France.

In addition, a formal investigation was opened in the United Kingdom by Ofgem against EDF Energy on July 28, 2005 under the Competition Act resulting from the suppression of services supply to third parties. In its request, Ofgem indicated that it could reasonably believe that EDF Energy had violated the terms of Chapter II of the Competition Act and/or the provisions of article 82 of the EC Treaty by suppressing the data-gathering and consolidating services that had been provided to third party suppliers in London and SWEB areas.

In July 2006, Ofgem had issued a project of a "non-violation decision" that specified that EDF Energy had not violated the abovementioned provisions since it did not have a dominant position in the concerned markets. Accordingly, there was no cause of action.

Ofgem's final decision putting an end to this investigation was published on January 24, 2007.

Finally, on December 12 and 13, 2006, the European Commission carried out a search in the headquarters of the main groups acting on the German energy market, including EnBW, in relation to its investigation on behaviors possibly contrary to European competition regulations and



namely to articles 81 and 82 of the EC Treaty. Nevertheless, such searches do not imply that the companies involved are accused of any anti-competitive behavior.

#### ACCOUNTING DISSOCIATION AND TRANSPARENCY OF ACCOUNTING

The European directive of June 26, 2003 stipulates that electricity companies must have their annual accounts audited and published in accordance with national regulations relating to the annual accounts of corporations and that, pursuant to the principle of accounting dissociation, they must prepare separate accounts for each of their transmission and distribution businesses. Until July 1, 2007, they must also keep separate accounts for their businesses supplying eligible customers and their businesses supplying non-eligible customers. As of July 1, 2007, such companies will be required by article 25 of the Law of February 10, 2000 as amended by article 13 of the Law of December 7, 2006 to hold an internal accounting that distinguishes the supply to customers having exercised their eligibility rights from the supply to customers under regulated tariffs.

Member States or any other duly appointed authority will have a right of access to the electricity companies' accounts.

#### **DIRECT LINES**

Member States must implement the necessary measures to allow (i) all electricity generators and all electricity supply companies to supply, by means of a direct line, their own establishments, subsidiaries and eligible customers, and (ii) any eligible customer to be supplied with electricity through a direct line by a generator and supply companies.

## Regulation (EC) n° 1228/2003 of June 26, 2003

Regulation (EC) n° 1228/2003 of the European Parliament and the European Council of June 26, 2003 relating to the conditions of access to the network for cross-border electricity exchanges was passed in order to amend the European directive of June 26, 2003. The provisions of this regulation became effective on July 1, 2004.

This regulation provides, in particular, for a compensation mechanism between transmission system operators for the costs occasioned by accepting cross-border electricity flows on their networks. This compensation is paid by the national transmission system operators who operate the networks where the cross-border flows originate and the networks where these flows end.

In addition, it sets forth the principle of transparency for access charges to the networks, which also take into account the need to guarantee the security of the networks and reflect the costs effectively incurred.

Within the framework of the third "Energy Package" introduced on Sepetember 19, 2007, the Commission has proposed to modify the regulation 1228/2003 (see Section 6.5.4.5.1.1 (" The "Energy and climate change package") below.

## DIRECTIVE 2005/89/EC ON SECURITY OF ELECTRICITY SUPPLY DATED JANUARY 18, 2006

The directive (n° 2005/89/EC) on security of electricity supply, adopted on January 18, 2006, aims at better defining the responsibilities of various parties, ensuring that minimum operation norms are respected, keeping an equilibrium between demand and supply, and finally directing investments towards the networks. The challenge for EDF is to reinforce the legal regime in force, and to promote the development of interconnections.

## EUROPEAN COMMISSION RECOMMENDATION ON "FINANCIAL RESOURCES FOR THE DECOMMISSIONING" DATED OCTOBER 24, 2006

EDF Group's nuclear installations were included in the scope of the two "Euratom" directive proposals dated January 30, 2003. These directive proposals concerned, on the one hand, the definition of basic obligations and general principles related to the safety of nuclear installations, and on the other hand, the management of the nuclear fuel irradiated and radioactive waste (nuclear package). Although these directive proposals were not adopted, a consultation process was opened and in October 24, 2006 the European Commission adopted a recommendation on "financial resources for the decommissioning" which states the following: adequate resources must be available when required; such resources must cover all operations, including burnt fuel and radioactive waste; each Member State is required to create a national independent entity as an expert in the estimate of costs and funds management which will publish an annual report and a five-year estimate of the costs. The preferable option would be a separate decommissioning "fund", external or internal, that would assure strict accounting identification and traceability; the State (external management) or the operator (internal management) must guarantee the availability of necessary resources, which it must manage in a cautious (low-risk assets) and clear way.

#### **6.5.1.2 FRENCH LEGISLATION**

European directive 96/92/EC, dated December 19, 1996, was transposed into French Law by the French Law of February 10, 2000 modified notably by the French Law of January 3, 2003, and the European directive of June 26, 2003 was transposed into French Law by the Law of August 9, 2004, which amended the French Law of February 10, 2000 and by the Law n°2006-1537 of December 7, 2006 concerning to the energy sector.

In addition, the law defining energy policy guidelines (*Loi de Programme fixant les Orientations de la Politique Energétique* or "LPOPE"), dated July 13, 2005, defined energy policy priorities in France (supply security, a competitive price for energy, the effort against greenhouse emissions and social and regional cohesion), it also reinforced the position of EDF's generation facilities, in particular, the nuclear fleet, by explicitly providing for the construction of EPR reactor and by reaffirming the role of nuclear power, and finally, it also reorganized the measures designed to promote the development of wind power and confirmed the role of hydropower among new renewable energies.

Regarding management of energy requests (*maîtrise de la demande d'énergie* or "MDE"), LPOPE created an innovative system of energy saving certificates, also called "white certificates", that combines regulatory restrictions (obligation upon energy suppliers to save energy) and market mechanisms. The coming into force of this system was subject to publication of several implementation decrees which were published on May 23, 2006 and have determined that EDF's obligations concerning energy savings for the first two fiscal years (July 1, 2006-June 30, 2007 and July 1, 2007-June 30, 2008) would amount to around 10 TWh of final energy per fiscal year. Finally, an order dated September 27, 2006, settled the amount of EDF's obligations for the period 2006-2009 to about 30 TWh.

EDF will have to prove having attained its obligations by returning the energy saving certificates which it will have obtained, either trough taking actions that allowed energy savings to third parties or on its own assets, or through other energy operators who were offering their certificates. The law creates an obligation to achieve a particular result upon "compelled" entities, such as EDF, which is sanctioned by a penalty amount to two cents for each KWh missing at the end of the obligations' period.

#### PUBLIC SERVICE COMMITMENTS

Pursuant to Articles 1 and 2 of the French Law of February 10, 2000, EDF is responsible for certain public service commitments.

#### PUBLIC SERVICE OBJECTIVES FOR ELECTRICITY

The law specifies that the purpose of the public service is, in particular, to guarantee electricity supplies across France, in the interest of the general public.

### RESPONSIBILITY FOR BALANCED DEVELOPMENT OF THE SUPPLY

The aim of the balanced development of the supply is to achieve the objectives set in accordance with the multi-year generation investment program prepared by the Minister of Energy and to guarantee supplies to areas of France which are not interconnected with the network in metropolitan France.

The pluriannual generation investment program sets the objective of dividing the generation capacity by primary energy source and, where necessary, by generation technique and by geographic area, while ensuring opportunities for decentralized generation, cogeneration and new technologies. The generation investment program was established by an order of the Minister of Energy dated July 7, 2006.

As an electricity generator, EDF contributes, with the other generators, to the achievement of the investment objectives defined in this program.

## RESPONSIBILITY OF DEVELOPING AND OPERATING THE PUBLIC TRANSMISSION AND DISTRIBUTION NETWORKS

Developing and operating the public electricity transmission and distribution networks consists of ensuring reliable and efficient service in France and its overseas departments, with respect for the environment, and ensuring interconnection with neighboring countries, together with connection and access, under non-discriminatory conditions, to the public transmission and distribution networks.

Public network managers are responsible for this task.

## RESPONSIBILITY TO SUPPLY ELECTRICITY

Supplying electricity consists in providing across France and its overseas departments an electricity supply to customers benefiting from electricity sales regulated tariffs, supplying electricity in case of emergency and electricity of the last resort to eligible customers in the event that the balance responsible entity defaults in its supply obligations. In supplying electricity, EDF helps to supply electricity to those persons who are in a precarious situation.

Accordingly, Law n° 2006-872 of July 13, 2006, also called "Borloo" law, contains a provision that aims to prohibit electricity suppliers from carrying out, during the winter period (November 1st to March 15th), discontinuations in electricity supply resulting from a default of payment of the electricity bill in the main residence of individuals benefiting or having benefited from a decision in favor of the allowance of an aid from the solidarity fund for housing, within the last twelve months.

### SOCIAL HARMONY

The Law of February 10, 2000 stipulates that, in the course of its business, EDF shall contribute to social harmony, mainly through tariff equalization for the sale of electricity to residential users who benefit from regulated sale tariffs, implementation of the rate "necessary product", holding of electricity supply pursuant to article L. 115-3 of the French Code de l'action sociale et des famille and through tariff equalization for the use of public distribution networks.

#### PUBLIC SERVICE CONTRACTS

Article 1 of the Law of August 9, 2004 provides that the objectives and arrangements for discharging the public service commitments assigned to EDF shall be the subject of an agreement entered into with the French State (for a description of the new public service contract entered into by the French State and EDF, see Section 6.4.3.4 ("Public service")).

#### **GENERATION FACILITIES**

The French Law of February 10, 2000 opened up the electricity generation market to competition. Any person can operate an electricity generation facility, provided he has an operating license pursuant to Article 7 of the aforementioned French Law and the French Decree n° 2000-877 of September 7, 2000.

#### **ELIGIBLE CUSTOMERS**

To allow the electricity market to be opened up to competition, Article 22-III of the French Law of February 10, 2000 provides that an eligible customer can enter into an electricity purchase agreement with a generator or supplier of his choice that operates within the European Union or in the territory of a State that is a party to an international agreement with France.

As of July 1, 2007, all customers are eligible.

In its November 30, 2006 decision in connection with the law concerning the energy sector, the French Constitutional court (*Conseil Constitutionnel*) censured some of the provisions related to regulated tariffs of article 17 of such law, considering that they are clearly contrary to the aims of opening the market to competition settled by the European "energy" directives.

In so doing, the Constitutional court contradicted the legislator's purpose and suppressed the possibility for a residential customer to return to the tariff on a given site after having exercised its eligibility and suppressed the possibility for a residential customer moving in an accomodation where the prior occupier had exercised his eligibility to benefit from the regulated tariffs. The Constitutional court had implicitly deprived from the benefit of the regulated tariffs the new consumption sites beyond December 31, 2007.

Law n° 2007-290 dated March 5, 2007 creating the opposable right to obtain a lodging (*droit au logement opposable*) added an article 66-2 to the Law of July 13, 2005 which specifies that article 66 of the latter is also applicable to new consumption sites connected to the public networks before July 1, 2010.

Law n° 2008-66 dated January 21, 2008 relating to regulated tariffs for electricity and natural gas authorizes residentials customers using 36 kVA or less and who move in a site which previous owner had exercised its eligibility to benefit from regulated tarrifs for the sale of electricity with respect to such site, provided a request is made prior to July 1, 2010.

It also provides that final residential customers having exercised their eligibility for a given site for at least 6 months may come back to regulated tariffs on this site, provided a request is made prior to July 1, 2010.

In order to compensate industrial customers from the increase of market prices, the Law of December 7, 2006 (article 30-1 of the Law of August 9, 2004), created nevertheless, a temporary tariff for customers having exercised their rights, also called "return tariff": this transitory regulated tariff for market adjustment ("tarif réglementé transitoire d'ajustement



du marché" ("TaRTAM")) is applicable, for a period of no more than two years, to customers who will have made a written request to the supplier before July 1, 2007.

According to the law, this TaRTAM cannot exceed by more than 25% the regulated tariff applicable to a site that shows the same characteristics. This limit was settled by an order of January 3, 2007 (see section 6.2.1.2.2.2 ("The prices of electricity sales applicable to eligible customers")).

The compensation of the charges borne by the suppliers as a result of this system is assured partially by using the amounts collected under the CSPE, and mostly by a contribution due by the largest hydropower and nuclear electricity producers, of which EDF is the most important one (article 30-2 of Law dated August 9, 2004).

#### THIRD-PARTY ACCESS TO THE NETWORKS

Article 23 of the French Law of February 10, 2000 states that network operators must guarantee access to the public transmission and distribution networks in order to:

- ensure the public service responsibility relating to the supply of electricity;
- ensure that the supply contracts with eligible customers are performed;
- allow a generator to supply its establishments, subsidiaries and parent company, within the limits of its own generation; and
- ensure that the electricity export agreements entered into by a generator or by a supplier to purchase electricity for resale in metropolitan France and the overseas departments are performed.

The tariffs for using the public transmission and distribution networks mentioned in Article 4 of the French Law of February 10, 2000 and currently in force were established by the ministerial decision of September 23, 2005. For more details on the tariffs for using the public transmission and distribution networks, please see Section 6.2.2.4 ("Tariffs for Using the Public Electricity Transmission and Distribution Networks (*Tarif d'Utilisation des Réseaux Publics de transport et de distribution d'électricité*, or "TURP")") above.

Article 23 of the French Law of February 10, 2000 also provides that access to the networks is ensured through agreements to be entered into between the public transmission and distribution network operators and the users of these networks. Moreover, if it so wishes, any company selling electricity to eligible customers may enter into an agreement with the public distribution network operators relating to access to the networks for the performance of supply agreements entered into by such company with eligible end-users.

Finally, the same article stipulates that any refusal to enter into an agreement for access to the public networks must be justified and notified to the applicant and the Energy Regulation Commission (Commission de Régulation de l'Energie or "CRE"). Refusals must be in accordance with public, objective and non-discriminatory criteria and can be founded only on the imperatives related to the accomplishment of public service responsibilities and on technical reasons affecting the safety and security of the networks, together with the quality of their operation.

### **ELECTRICITY PURCHASE OBLIGATIONS**

EDF is subject to electricity purchase obligations pursuant to the French Law of February 10, 2000.

Article 8 of this law provides that the French minister in charge of the energy sector may, under certain conditions, allow the creation of an

electricity generation plant following a call for tenders procedure. EDF as a "Producer" can apply to such a procedure. EDF as a "Buyer" is then bound to enter into an agreement with the selected applicants or into a special kind of agreement (protocol) if EDF "Producer" is a selected applicant.

Article 10 of the French Law of February 10, 2000 provides that EDF and the NND are bound to enter into an agreement upon producers' request if such agreements concerns the purchase of electricity generated by:

- plants which value municipal solid waste or which aim to supply a heat network;
- plants which generating capacity does not exceed 12 MW and which use renewable energies or highly capable techniques in terms of energy efficiency, such as cogeneration;
- plants which use wind power and which are based in a wind power development area;
- plants which value recovery energies.

Nevertheless, the abovementioned plants can only benefit once from the purchase obligation agreements and the possible excess costs resulting from such agreements, which are borne by EDF and the NND, are compensated by the electricity public service contribution (contribution pour le service public d'électricité or "CSPE").

Finally, the French Decree n° 2001-410 of May 10, 2001 provided that a generator benefiting from a purchase obligation should sell all of its generation to EDF and the non-binding model of purchase agreements binding EDF and the generators should be approved by the Minister of Energy. Purchasing terms and conditions and, specifically, the electricity purchase prices, are set by order of the Minister of Energy, after consultation with the High Council for Energy ("Conseil Supérieur de l'Energie") and the CRE.

### MECHANISM FOR COMPENSATING EXCESS COSTS OF PUBLIC SERVICE

## THE CSPE

The contribution to the public services charges for electricity (*Contribution aux Charges de Service Public de l'Electricité*, or "CSPE") is intended to compensate for charges attributable to the public service responsibilities assigned to EDF and to the NND.

The public service charges compensated by the CSPE are as follows:

Insofar as electricity generation is involved:

- excess costs resulting, on the one hand, from electricity purchase agreements following call for tender procedures (article 8 of the Law of 2000) and, on the other hand, from purchase obligation agreements entered into pursuant to article 10 of the Law of 2000, including cases where facilities operated by EDF or a NND are involved;
- excess generation costs in non-interconnected zones, which are not covered by the portion of the tariff for non-eligible customers relating to generation.

Insofar as electricity supply is involved, electricity suppliers are compensated for:

- loss of income and excess costs incurred while implementing the special pricing for an "essential commodity" set forth in Article 4 of the French Law of February 10, 2000; and
- costs incurred as a result of their participation in the plan established for lowest-income people.

Expenses borne by suppliers in accordance with TaRTAM supply are partially financed by a fraction of the CSPE, pursuant to article 30-2 of the Law of August 9, 2004, but that contribution cannot exceed €0.55 per MWh.

The CSPE is collected in full directly from the final customer either:

- as an additional levy on electricity tariffs (for non-eligible customers and eligible customers that have not exercised their right of eligibility) or on network usage tariffs (for eligible customers that have exercised their right of eligibility); or
- directly from electricity generators that generate for their own use, or other end-users who do not use the public electricity transmission or distribution networks.

The amount of the contribution, by consumer site, due by eligible customers may not exceed €500,000. In addition, the LPOPE provided that as of January 1, 2006 the total amount due for CSPE by any industrial company consuming more than 7 GWh electricity a year is limited to a maximum of 0.5% of its added value.

#### **COMPENSATION FOR EXCESS DISTRIBUTION COSTS**

Tariff equalization is intended to spread the charges incurred as a result of public service commitments assigned for managing the electricity distribution networks between the operators involved (EDF Group and the NND).

#### REGULATION OF THE ELECTRICITY SECTOR

### THE ENERGY REGULATION COMMISSION

The Energy Regulation Commission (*Commission de Régulation de l'Energie*, or "CRE") is an independent administrative authority created by Article 28 of the French Law of February 10, 2000. The amounts required for the CRE to carry out of its missions are registered in the French State general budget.

The law concerning to the energy sector gives a general definition of CRE's mission: "In accordance with the powers given to it, the Energy Regulation Commission contributes, to the benefit of the final consumers, to the right functioning of electricity and natural gas markets. In particular, it assures that the access conditions to electricity and natural gas transmission and distribution networks do not inhibit the development of competition. Also, concerning electricity and natural gas, it supervises the transactions carried out between suppliers, merchants and producers, transactions carried out on organized markets, as well as over-the-border exchange transactions. It assures the consistency of suppliers, merchants and producers' offers with their technical and economical restrictions."

The CRE does not only have an advisory power (proposal power and the power to render an opinion), but also a decision power (approval power and regulatory power).

The CRE proposes to the ministers in charge of the economy and industry usage tariffs for public transmission and distribution networks, the charges attributable to public service commitments assigned to electricity generators and the net amount of the related contributions, as well as the charges set forth in Article 48 of the French Law 2000 and the related net contributions.

It also has important information and investigation powers, as well as the authority to settle disputes and to apply penalties, which the law of December 7, 2006 granted to an ad hoc committee within the

commission: the dispute settlement and penalty committee, which is composed of members of the *Conseil d'Etat* and of the *Cour de cassation*.

## **6.5.2** Legislation relating to the gas market

#### **6.5.2.1 COMMUNITY LEGISLATION**

On June 22, 1998, the European Parliament and the European Council passed European directive 98/30/EC, intended to establish a European gas market in the Member States. This directive was repealed by European directive 2003/55/EC of June 26, 2003 relating to common rules for the European natural gas market.

## EUROPEAN DIRECTIVE 2003/55/EC of June 26, 2003

With the objectives of (i) improving the operation of the gas market by taking concrete measures, and (ii) accelerating the opening to competition of national gas markets, this directive establishes the documentary foundation for the creation of a fully operational European natural gas market in which there is fair competition.

Like its predecessor, this directive sets forth common rules concerning transmission, distribution, supply and storage of natural gas, including LNG, biogas, gas output from biomass, and other types of gas.

This directive establishes the general terms relating to the organization and operation of the natural gas sector, non-discriminatory access to the market, and the criteria and procedures applicable to the granting of licenses for the transmission, distribution, supply and storage of natural gas and for operating the networks.

It accelerated the opening of the natural gas markets to competition by extending this opening to all customers other than residential customers (*i.e.*, for customers purchasing gas for purposes other than for their domestic use) from July 1, 2004, and specified that this opening will be extended to all customers from July 1, 2007.

#### **6.5.2.2 FRENCH LEGISLATION**

The first European directive of 1998 was transposed into French Law by Law no. 2003-8 of January 3, 2003, relating to the gas and electricity markets and to the public service for energy, as amended and supplemented by French Law no. 2004-803 of August 9, 2004, and by the LPOPE.

European directive 2003/55/EC was transposed into French Law mainly by the Law of August 9, 2004 and the Law of December 7, 2006 although certain provisions of the directive had already been incorporated into French Law before the transposition.

Finally, the Law of December 2006 concerning the energy sector completes and organizes the opening up to competition of the French market for natural gas for residential customers.

### LAW N° 2003-8 OF JANUARY 3, 2003

## ACCESS TO NATURAL GAS SYSTEMS

This law provides that eligible customers, suppliers and their agents have a right of access to natural gas transportation and distribution facilities, and to LNG facilities, under the terms and conditions set forth in an agreement with the operators.

Natural gas network operators must refrain from any discrimination

### **Business overview**



between users or categories of users.

#### **ELIGIBLE CUSTOMERS**

The French Law of January 3, 2003 provides, in particular, that eligible customers have the option to be supplied with natural gas by the supplier of their choice.

Since July 1, 2007, in accordance with the European directive 2003/55/EC and following the implementation of the law concerning the energy sector, all customers have been able to freely chose their supplier.

Based on the provisions of French Law dated July 13, 2005, as amended by French Law no. 2008-66 dated January 21, 2008, a non-residential customer cannot benefit from regulated tariffs for the sale of gas for a site unless it or its predecessor at the site exercised eligibility for that site.

In addition, a non-residential customer cannot claim the benefit of regulated tariffs for a new site.

The situation is different for residential customers who, since publication of French Law dated January 21, 2008, can, provided they make the request before July 1, 2010, enjoy regulated tariffs for a site, subject to the sole condition they have not themselves exercised their eligibility rights for that site, and they can also benefit from regulated tariffs for a new site connected to the network before July 1, 2010.

#### **SUPPLIERS**

French Law defines suppliers as persons who (i) are based in the territory of a Member State of the European Union or in the territory of another State pursuant to international agreements, and (ii) possess a license issued by the Minister of Energy.

EDF is licensed, pursuant to an order of the Deputy Minister of Industry, dated September 14, 2004, to operate as a natural gas supplier to non-residential customers that do not provide a service of general interest, and pursuant to an order dated August 9, 2005, to non-domestic customers that do provide a service of general interest as well as to gas distributors and suppliers and, following an order of June 15, 2007, residential customers.

### TRANSMISSION AND DISTRIBUTION OF NATURAL GAS

The French Law of January 3, 2003 provides, in particular, that carriers and distributors must ensure the safety and efficiency of their network and the balance of natural gas flows, taking into account technical constraints.

### **DETERMINATION OF TARIFFS**

The tariffs for using the transmission and distribution networks and LNG facilities and natural gas sale tariffs for non-eligible customers are determined, according to public, objective, and non-discriminatory criteria and taking into account the type of service and the associated costs, jointly by the Minister of Economy and the Minister of Energy upon the recommendation of the CRE.

### UNDERGROUND STORAGE AND THIRD-PARTY ACCESS TO NATURAL GAS STOCKS

The French Law of January 3, 2003 requires all suppliers to hold, on October 31 of each year, directly or indirectly through an agent, sufficient inventories of natural gas in France to comply, for the period between November 1 and March 31, with its direct or indirect contractual obligations to supply its residentials customers and other customers that are charged with public service obligations or that have not contractually accepted interruptible gas supply.

The Decree n° 2006-1034 of August 21, 2006 specifies the laws and regulations applicable to underground storage of natural gas.

#### **AUDIT AND PENALTIES**

The Law of January 3, 2003 grants authority to the Minister of Energy and the Minister of Economy to inquire into matters concerning the regulation of the gas market. The Minister of Energy may also levy a fine, or withdraw, or suspend for a term which may not exceed one year, a license to supply natural gas.

### **6.5.3** Public electricity distribution concessions

### **CONCESSION SYSTEM**

Under Article 6 of the French Law of June 15, 1906, a public electricity distribution concession is awarded either by a municipality or by a syndicate formed by a number of municipalities, if the application for the concession is only made for the geographic area administered by the municipality or syndicate, or by the department if the application covers the territory of the department, or by the French State.

The concession system was upheld by the French Law of April 8, 1946, which transferred to EDF existing concessions and upheld the rights of the NND (*non nationalized distributors*), as confirmed by the French Law of February 10, 2000. Pursuant to the above, the licensors organize the public electricity distribution service through concession agreements and specifications which set forth the rights and obligations of the authority, in its capacity as licensor, and the licensee, respectively.

The licensors are most often syndicates of municipalities or departments, whose administration is set forth by Articles L. 5212-1 to L. 5212-34 of the General Code for Local Authorities (*Code Général des Collectivités Territoriales*, or "CGCT"). Concessions may be granted by a municipality or by a syndicate of municipalities only to ERDF since January 1, 2008 or to EDF in ZNIs (*zones not interconnected to the mainland network - Zones Non Interconnectées au réseau métropolitain continental*) or to NNDs.

The French Law of December 7, 2006 which introduced a public service of supply to customers who do not exercise their rights, provides that, after July 1, 2007, the amendments and restatements of the concession agreements will have to be executed by the three parties: the public entity granting the concession, the distribution network managers for the part relative to management of the public distribution network and EDF, as far as supply is concerned at regulated tariffs. The ongoing agreements are deemed to have been signed by these three entities.

### RIGHTS OF AUTHORITIES GRANTING A CONCESSION

Authorities granting a concession have the following rights:

- the possibility of personally managing the expansion of distribution networks;
- ownership of the facilities covered by the concession (property to be returned); with the exception of source stations transforming high or very high voltage current to medium voltage belonging to ERDF (see Article 36 II of the Law of August 9, 2004);
- right to collect rents (see Section 6.2.2.2.2 ("Concessions") above);
- electricity generation, limited to facilities that are in sufficiently close proximity to allow for extension or upgrade savings and whose power does not exceed 1 MW (or 2 MW in Guadeloupe, French Guyana, Martinique and La Réunion) as set forth in the French Decree n° 2004-46 of January 6, 2004;
- demand-side management for consumers supplied with low voltage with a view to saving energy when extending or upgrading the public distribution network; and
- audit of the licensee's business, carried out by an auditor appointed by the licensor which is distinct from the public distribution network operator.

For more details concerning the content of the concession agreement and the specifications, see Section 6.2.2.2.2 ("Concessions") above.

# 6.5.4 Regulations relating to the environment, nuclear facilities, health, hygiene and safety

EDF's business in France, as well as in other countries where EDF operates, is subject to regulations related to the environment, nuclear power, health, hygiene and safety. Compliance with these regulations, which are increasingly restrictive and subject to constant change, exposes the Group to significant costs.

### **6.5.4.1** REGULATIONS APPLICABLE TO CLASSIFIED FACILITIES FOR THE PROTECTION OF THE ENVIRONMENT

#### LICENSES

The EDF Group's business in most countries where it operates, is subject to obtaining permits or licenses, or to the completion of formalities prior to beginning operations. These obligations notably stem from regulations related to the environment, urban planning, health, hygiene and safety.

Some facilities operated in France by EDF, mainly fossil-fired power plants, are subject to the legislation relating to Classified Facilities for the Protection of the Environment (Installations Classées pour la Protection de l'Environnement, or "ICPE"). Pursuant to the French Environment Code (Code de l'environnement), facilities which may present dangers or disadvantages, mainly to public health and safety, are subject, according to the magnitude of the dangers or disadvantages presented by their use, either to a prior declaration or to an authorization. In the latter case, the authorization to operate will take the form of an order of the préfet issued after consultation with various bodies and a public inquiry, containing specific operating instructions.

The ICPE regulations also require, when a facility is taken out of service, the restoration of the site, depending on the expected use of the land.

ICPEs are placed under the control of the préfet and the regional departments for industry, research and the environment (*Directions Régionales de l'Industrie, de la Recherche et de l'Environnement*, or "DRIRE"), which are responsible for organizing inspections of classified facilities. If the operator of an ICPE fails to comply with the instructions imposed on its operations, and regardless of any potential criminal proceedings, the *préfet* may impose administrative penalties, such as the deposit of a sum equal to the cost of the work to be done to make the facilities compliant, forced execution of the measures prescribed by order, suspension of operations, or a proposal for the shutdown or removal of the facility by decree rendered upon review by the French *Conseil d'Etat*.

### **HEALTH AND SAFETY PROVISIONS**

The safety provisions in the ICPE regulations require, prior to the authorization of a facility, the completion of a study setting forth the dangers, including an analysis of the risk of accidents, as well as the appropriate measures to reduce the probability and impacts of these accidents. The project for creating an ICPE, which is subject to authorization, must also be the subject of a public inquiry regarding any effects it might have on public health, safety and salubrity and on the protection of the environment. In addition to technical instructions for the protection of health and safety, the authorization order may also impose on the operator of a classified facility the preparation of an Internal Operation Plan (*Plan* 

d'Opération Interne, or "POI") setting out organizational measures, action measures and the necessary resources to protect employees, the population and the environment in the event of an accident.

### **6.5.4.2** SPECIAL REGULATIONS APPLICABLE TO NUCLEAR FACILITIES

From now on, EDF is subject in France to Law n° 2006-686 of June 13, 2006 concerning transparency and security in the nuclear field ("TSN law"), which determines the main provisions applicable to Basic Nuclear Facilities (Installations Nucléaires de Base, or "INB") and also transformed the Nuclear Security Authority (Autorité de Sûreté Nucléaire or "ASN") into an independent administrative authority. Pursuant to this law, the decree n° 1228 of December 11, 1963, as amended, has been replaced by a new Decree no. 2007-1557 of November 2, 2007. The TSN law provides, in particular, that the establishment of an INB will be authorized, following a public inquiry, by a decree, countersigned by the minister in charge of health, issued following a report by the ministers in charge of nuclear security after advice of the ASN. This new decree will define the scope, the characteristics of the facilities and the time by which those facilities should start to be operated. This commissioning authorization will be granted by the ASN. Safety check reviews will take place every 10 years in order to evaluate the compliance of the facilities to the applicable regulations. The lifespan of an INB is not defined by regulation.

In addition, water pumping, liquid radioactive waste discharges and discharges into the atmosphere of gaseous effluents, whether radioactive or not, which are likely to cause atmospheric pollution or specific odors, will be subject to an authorization, in the shape of instructions which settle the limits of effluents' rejects, granted by the ASN and subject to approval by the ministers in charge of nuclear safety.

The ASN will give other instructions, in particular, to prevent or limit the effects of any incidents, to define individual and collective means of protection of the populations, to limit noise annoyances and manage the waste generated or stored by the facilities.

### RULES FOR THE SAFETY AND CONTROL OF NUCLEAR FACILITIES

EDF's nuclear facilities are subject, as soon as they are established, to nuclear safety regulations. Accordingly, the application for an authorization namely includes a preliminary version of the safety report which consists of, for what concerns the INB, a study of the impact on the environment, a study of the dangers that sets forth the measures taken to reduce the risks inherent to operating an INB and to limit the consequences of any accident and an environmental study, a decommissioning plan and a risk management study. INBs must also comply with the general rules of the ministerial order for the protection from risks in the safety, health, sanitary and nature and environment protection fields. An Internal Emergency Plan (Plan d'Urgence Interne, or "PUI") specifying the organization and resources to be implemented in the event of an accident must be drafted by the operator. In addition, the latter must also prepare an annual report, submitted to the CHSCT and published, namely describing the measures taken in terms of nuclear safety and radiation protection. Moreover, any accident or incident, nuclear or not, which has or may have significant consequences for the safety of an INB must be declared immediately, in particular, to the ASN, which will ensure the adoption of appropriate measures to remediate the accident or incident and to avoid such an accident or incident being repeated.

The ASN can make technical regulatory decisions to complete the implementation methods of the decrees and orders passed in the nuclear safety and radiation protection fields. Such decisions are subject to the relevant ministers' approval.

### **Business overview**



The TSN law also includes provisions concerning public information and transparency, such as the creation of a high committee for transparency and information on nuclear safety.

Finally, increasingly stricter administrative and criminal penalties have been created to sanction INB operators who do not comply with their legal and regulatory obligations, such as three years of imprisonment and a  $\leqslant$ 150,000 fine if the INB is operated without an authorization, or one year of imprisonment and a  $\leqslant$ 30,000 fine if radioactive substances are transported without authorization.

#### **DECOMMISSIONING NUCLEAR FACILITIES**

The final shutdown and decommissioning of an INB are authorized by decree after the ASN has given its opinion. The latter gives instructions concerning the decommissioning and the decree will notably determine the decommissioning's characteristics and delay. Once the decommissioning is completed, the ASN will render a decommissioning decision for the relevant facility after approval by the ministers in charge of nuclear safety.

#### RADIOACTIVE WASTE

The EDF Group's business is subject to French regulations for the handling, storage and long-term management of nuclear waste. EDF is legally responsible for the nuclear waste resulting from its business. In France, radioactive waste is managed by the National Agency for Radioactive Waste Management (Agence Nationale pour la Gestion des Déchets Radioactifs, or "ANDRA"), an EPIC created by the French Law of December 30, 1991. The method for the storage of nuclear waste in France depends on its degree of radioactivity and its nuclear activity period. In addition to certain temporary storage on EDF sites, very low-level waste produced by EDF (from, for example, concrete or metal waste left over after decommissioning a nuclear power plant) is stored on an ANDRA site, known as "TFA", opened in 2003. Short life, low-or medium-level waste that is produced by EDF's business is stored above ground at the ANDRA's Aube storage center (see Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues")). Long life, high-level waste produced from the treatment of burnt fuel is vitrified and stored temporarily at the Areva NC (formerly Cogema) center at The Hague pending the adoption of a long-term management solution (see Section 6.2.1.1.3.4 (("The nuclear fuel cycle and related issues") below).

Long life, medium-level waste (for example, from shells, ends and clad pieces) is either cemented or compacted and confined in stainless steel containers. They are currently in intermediate, temporary storage pending a final decision concerning long-time management (see Section 6.2.1.1.3.4 ("The nuclear fuel cycle and related issues")).

The National Commission for the evaluation of research concerning the management of radioactive waste has presented its final evaluation report on January 18, 2006. The report opts for "reversible deep geological underground storage" as an option that should be retained for ultimate waste, even if the conditions for a possible final decision on storage were not yet fulfilled. Following the passing of program law no. 2006-739 of June 28, 2006 concerning the long-term management of radioactive materials and waste, research and studies concerning HAVL and MAVL waste are carried out in accordance with the three complementary axis hereunder:

- Separation and transformation of long-life radioactive elements, in order to obtain, by 2012, an evaluation of industrial prospects in such fields and to commission a new prototype facility before December 31, 2020;
- Reversible storage in deep geological layers: choice and conception of a storage center, for which an authorization request should be filed in 2015 and which should be commissioned in 2025, subject to such

- authorization:
- Storage: in order to create new storage facilities or change the existing facilities at latest by 2015.

The question of what option should be retained in France regarding the management of a long-life high-level waste was the subject of a public debate organized by the "Commission Nationale du Débat Public" ("CNDP"). The report of this debate, as well as the conclusions of its President, were made available on January 27, 2006. The CNDP's most remarkable contribution is the appearance of a new possible strategy which includes both the carrying out of test on the geological storage and the creation of a long-term storage prototype.

In addition to the three axis mentioned above, the program Law of June 28, 2006 provides for a national radioactive materials and waste management plan, updated every three years, which will consist of a report of the existing management methods and determine expected storage and stockage needs; the law sets forth that a deep geological layer storage center is a basis nuclear facility for which the creation authorization by a decree of "Conseil d'Etat" will be preceded by a public debate. This law also sets forth for the organization and the financing of radioactive waste management.

Finally, it also provides for the framework of the evaluation and hedging of basis nuclear facilities decommissioning costs and for the management of burnt fuels and radioactive waste. In particular, assets dedicated to the hedging of provisions cannot be used for any other purpose by the operator, and should be subject to a different accounting. The implementation of such provisions will be controlled by the administrative authority, which consists of the ministers in charge of the economy and energy, themselves under the control of a National Commission for the evaluation of financing of INB's decommissioning costs and for the management of burnt fuels and radioactive waste.

Transportation of radioactive waste is subject in France to Articles L. 1333-1 et seq. of the French Defense Code (Code de la défense), governing the protection and control of nuclear materials, and the regulations for the international and national transportation of hazardous goods, under the control of the ASN. The latter carries out a critical analysis of the security files submitted by applicants to obtain approval for their prototype package. The objective of these regulations is to prevent the loss or disappearance of packages containing nuclear materials, mainly while in transit, and to ensure human and environmental safety, while controlling the risks of contamination by packages containing nuclear materials.

Decree n° 2007-243 of February 23, 2007 concerning the securing of nuclear costs financing sets forth the implementation conditions and methods of the program Law of June 2006, applicable as of June 29, 2007.

Accordingly, the operator can evaluate costs according to five categories (nuclear facilities decommissioning costs, burnt fuels management costs, etc.) which are themselves divided into several kinds of operations following a list provided by an administrative authority's order. The costs are evaluated according to a method based on an analysis of the different contemplated options for the implementation of the operation and on that basis, prudently choose a standard strategy.

The discount rate, used for the calculation of provisions, is determined by the operator and can exceed neither the profitability rate expected from hedging assets managed according to a sufficient safety and liquidity degree nor a ceiling determined by an administrative authority's order.

Different kinds of hedging assets are accepted within a certain percentage, such as bonds, claims or securities issued or guaranteed by a member state of the European Community or of the OECD, or shares and other securities giving access to the share capital of companies whose headquarters are based on a member state of the European Community or the OECD.

Property assets, claims' acts or titles, deposit accounts must be kept or opened in France. The operator must keep a currently updated register of hedging assets and have summary report be transferred every three-months to the administrative authority. The operator's board of directors determines the framework of the hedging assets creation and management policy, in accordance with the assets' purpose and general principles of prudence and risk sharing.

In addition, a committee should be created by the Board of Directors which will be in charge of examining and giving its opinion on the framework of the hedging assets creation and management policy, as well as a permanent procedure for the internal control of costs financing and in particular, their evaluation and of the management of hedging assets. In companies which have issued listed securities such procedures may be the subject of a special chapter of the Chairman of the Board's annual report concerning internal controls.

Finally, a report is filed with the administrative authority and the ASN every three years, a copy of which is sent to the statutory auditor, which includes a description of namely the costs evaluation, the methods used for the calculation of provisions and the composition of the assets. The administrative authority can require any additional explanation, have an external entity prepare a study or require that an expertise of the assets value be carried out, at operator's expenses.

### RADIATION PROTECTION REGULATIONS

In France, the French Public Health Code (*Code de la santé publique*) states that all nuclear activities where there is a risk of exposure of persons to ionizing radiation fall under the authority of the ASN. General protection of the population against radiation is based mainly on the subordination of any nuclear activity to a declaration or an authorization. Authorizations issued for the establishment of an INB as described above encompasses such authorization. The French Decree n° 2002-460 of April 4, 2002 relating to the protection of persons against the dangers of ionizing radiation, which transposes the provisions of European directive 92/29/EURATOM of May 13, 1996 and European directive 97/43/EURATOM of June 30, 1997, sets the maximum exposure by the general public at 1 mSv per year.

French regulations relating to the protection of workers against the dangers of ionizing radiation, based on European directive 96/29/EURATOM and on French Decree n° 2003-296 of March 31, 2003, specifically impose a limit on exposure of workers to ionizing radiation of 20 mSv for 12 consecutive months.

### CIVIL LIABILITY OF NUCLEAR FACILITY OPERATORS

A number of international agreements govern the civil liability of nuclear facility operators: the Paris Convention of July 29, 1960 on Third-Party Liability in the Field of Nuclear Energy and the Brussels Convention of January 31, 1963, supplementary to the Paris Convention and the Vienna Convention of May 21, 1963 on Civil Liability for Nuclear Damage. These different conventions are applicable to the signatory countries that have ratified them, including France and Germany, countries in which the Group operates nuclear facilities (in France, through EDF and in Germany, through EnBW). In France, pursuant to these conventions, nuclear civil liability is governed by the French law n° 68-943 of October 30, 1968, as amended.

The Paris Convention institutes a specific liability scheme, which has the following characteristics:

- Damage covered: repair of any damage to persons and property;
- Type of liability: "responsabilité objective", i.e., strict liability;
- Exemptions: the operator is not liable for damage caused by a nuclear
  accident if such accident is due directly to acts of armed conflict,
  hostilities, civil war, insurrection or a natural catastrophe of an
  exceptional nature; however, acts of terrorism are not an exemption;
- Responsible person: the principle of channeling liability to one person
  or entity: the operator of the nuclear facility where the nuclear
  substances that caused the damage are held or where they originated;
- Limits of liability: the operator's liability may be limited both in its amount and its term by national legislation, provided this complies with the common minimum liability amount as set by the Conventions:
- if the facility is in France, the operator's liability is limited to approximately €91.5 million per nuclear accident in a facility and to approximately €22.9 million per nuclear accident during transportation. The time granted to make a claim for compensation is 10 years from the date of the accident;
- over and above the maximum amount for which the operator is liable, the State in which the accident occurred will be liable for the compensation of victims up to a maximum of €228.6 million; and
- over and above this amount, member States that are signatories of the Paris and Brussels Conventions (which includes France) contribute collectively to compensation up to a ceiling of €381.1 million; and
- Financial guarantee: there is an obligation of insurance or financial guarantee by the operator up to the fixed liability amounts, in order to guarantee the availability of funds. This insurance or financial guarantee must be approved by the State in which the insured or guaranteed facility is located. EDF has opted for insurance and has complied with the applicable requirements for coverage (see Section 4.1.3 ("Insurance")).

Protocols amending the Paris Convention and the Brussels Convention were signed on February 12, 2004. They require the availability of compensation amounts which are much greater, in order to cover a greater number of victims and types of collateral damage. The operator's liability is accordingly at least €700 million per nuclear accident in a facility and €80 million per nuclear accident during transportation. The State where the nuclear facility responsible for the damage is located will be liable for amounts above the €700 million for which the operator is liable, up to a maximum amount of €1,200 million. Above this amount, the States that are a party to these Conventions will be liable up to a maximum amount of €1,500 million.

In addition, for physical injury only, the time granted to claim compensation will change from 10 years to 30 years from the date of the accident.

Another important change is the introduction of a detailed definition of the concept of "nuclear damage", which includes non-economic loss, the cost of preventive measures, the cost of restoring a damaged environment and certain other losses resulting from damage to the environment.

Finally, the protocols provide that exemptions of an operator's liability will be limited to cases of armed conflict, hostilities, civil war or insurrection (natural disasters no longer entitle the operator to an exemption).

These new provisions were transposed into French Law by the above mentioned TSN Law of June 13, 2006. These provisions will only be applicable, however, when the protocols mentioned above come into force which requires two-thirds of the signatory states to ratify them. France has ratified both protocols through Law n° 2006-786 of

### **Business overview**



July 5, 2006 but has not yet filed the relevant ratification instruments as initialized by the minister of foreign affairs.

### **6.5.4.3** REGULATIONS APPLICABLE TO OTHER GENERATION METHODS USED BY THE EDF GROUP

### SPECIFIC REGULATIONS FOR FOSSIL-FIRED GENERATION

The EDF Group's fossil-fired generation business is subject in France to the regulations relating to ICPEs. EDF's fleet of fossil-fired facilities must also comply with specific regulations relating to the quality of the air, adopted mainly as a result of the European directive 2001/81/EC of October 23, 2001 on national emissions ceilings for certain atmospheric pollutants (NEC directive), and European directive 2001/80/EC of October 23, 2001 relating to the limitation of emissions of certain pollutants into the air from large combustion plants (LCP directive) (see Section 6.5.4.5 ("Principal draft regulations likely to have an effect on the EDF Group's activities") for a description of these specific regulations).

Exemptions are possible for facilities working at most 20,000 hours between 2008 and 2015 and a pollutants issuance reduction plan (SNR) has also been provided for which could allow a sharing of the disposals following the gathering of several facilities and therefore lead to an increased flexibility. European directive 2003/105/CE of December 16, 2003 (so called Seveso 3), was transposed into French Law by decree n° 2005-989 of August 10, 2005 (higher thresholds) and by the order of September 29, 2005 (lower thresholds). It amends the European Council directive 96/82/CE concerning the management of risks related to major incidents with dangerous substances (so called "Seveso 2" directive) and could have a significant impact on EDF Group's activities. In particular, this directive reduces the level of authorized quantities of carcinogenic or environmentally dangerous substances, for facilities generating, using or storing such substances. Accordingly, some of EDF's fossil-fired power plants could be subject to Seveso stricter regulations and therefore be imposed upon reinforced obligations in terms of safety and constitution of financial guaranties.

### SPECIFIC REGULATIONS FOR HYDROPOWER FACILITIES

Hydropower facilities are subject in France to the rules established by the French Law of October 16, 1919, as amended. They require concessions granted by the Prime Minister (for facilities generating more than 100 MW) or by the *préfet* (for facilities generating between 4.5 MW and 100 MW), or authorizations attributed by the *préfet* (for facilities under 4.5 MW), (see Section 6.2.1.1.4.4 ("Current and future hydropower generation issues") concerning hydropower concessions).

EDF's hydropower generation business is subject to water regulations. Such regulations relate to variations in water levels and flow rates, and to the safety of areas in the vicinity and downstream of the hydropower facility (see Section 6.5.4.4 ("Other regulations relating to the environment, health, hygiene and safety") below).

### CONDITIONS FOR THE RENEWAL OF HYDROPOWER CONCESSIONS

Pursuant to the French Law of October 16, 1919, French Decree n° 94-894 of October 13, 1994, as amended, specifies the conditions for the award or renewal of a concession. This decree includes the implementation terms of French Law n° 93/122 of January 29, 1993 (known as the *loi Sapin*), which provide for a competitive tender procedure in the context of public service delegations.

The former preference right for the incumbent concessionary has been suppressed by the amended Finance Act for 2006 because it did not comply with the competition procedures. The amended Finance Act for

2006 also provides for, as for what concerns hydropower concessions, the creation, at the time of their renewal, of a new annual royalty of at most 25% of the profits resulting from the sale of electricity generated by the conceded hydroelectric sites. This royalty is paid to the French State and partly allocated to departments. The implementation decrees remain pending.

#### SPECIFIC REGULATIONS FOR WIND ENERGY GENERATION

In France, the construction of wind farms is subject, pursuant to Articles. R. 421-2 of the Urban Planning Code, to obtaining a construction permit for wind farms with a height equal to or greater than 12 meters. Setting up one or more wind turbines requires a preliminary public inquiry and an impact study if the height of the mast exceeds 50 meters. An impact notice is nonetheless required by Article L. 553-2 of the Environmental Code if the height is less.

### **6.5.4.4** OTHER REGULATIONS RELATING TO THE ENVIRONMENT, HEALTH, HYGIENE AND SAFETY

#### **ENVIRONMENTAL REGULATIONS**

#### THE LAW CONCERNING WATER AND THE AQUATIC ENVIRONMENT

The law concerning water and the aquatic environment of December 30, 2006, which mainly aims at recovering the ecological quality of water streams and improving water management, includes several provisions which may concern EDF, but also allows to include in water management policy issues related to electric supply security and hydroelectric generation priorities.

Accordingly, certain restrictions will be increased, namely due to the increase of the minimum rate of flow on the downstream of dams, to the possibility of amending or canceling the operation permit if significant disturbances are caused to certain migrating fish by the operation of the site, or to changes in waterstream ranks to inhibit the construction of new sites or set forth instructions for the renewal of operation permits. Nevertheless, the minimum rate flow system will be less stricter in some cases, namely for sites of state-of-the-art generation, and a certain flexibility in administrative proceedings has been organized in order to facilitate the set up of supplemental hydroelectric equipments.

The legislation also upgraded the legal status of various water management documents: the *Schémas d'Aménagement et de Gestion de l'Eau* (Water Development and Management Plans) have thus become actual regulations which can be enforced against all parties and may contain standards regarding the quality or quantity of water.

Regulation No. 1100/2007 of the Council dated September 18, 2007 instituting measures for reconstituting European eel stocks has been in force since September 25, and is directly applicable without any transposition. It imposes a duty on each Member State to rapidly prepare (submission to the Commission by 12/31/08) plans for managing the eel population in each catchment area concerned. The purpose of the management plans is to reduce mortality levels caused by human activities and ensure that at least 40% of the eel biomass reaches the sea. Among the measures listed in the Regulation, management plans may include "structural measures so eels can cross rivers and improving habitats in watercourses" and "temporary shut-down of hydropower station turbines".

### **PCB**

The Group is subject to regulations relating to polychlorobiphenyls (PCB) and polychloroterphenyls (PCT) in the various countries where it operates, mainly in Europe.

European directive 96/59/EC of September 16, 1996 requires an inventory of equipment containing PCB and PCT, together with a national plan for decontamination and the gradual elimination of these substances, which are principally contained in certain electricity transformers and condensers. Decontamination of equipment containing these substances must be completed by December 31, 2010. In France, the national plan for the elimination and treatment of equipment containing PCB was approved by a Ministerial order dated February 26, 2003. For the appproximately ten companies that have more than three hundred items of equipment, the special elimination plan for each of these companies (including EDF) is shown in Appendix 11 of the national plan. The individual plan to be implemented by EDF requires the treatment of a number of appliances each year, with all being treated as indicated above, at the latest by December 31, 2010.

#### **GREENHOUSE GASES**

Some of the EDF Group's activities are subject to European directive 2003/87/EC (the "GHG directive") of October 13, 2003, which provides for a system for exchanging greenhouse gas emission guotas in the European Union, in accordance with the mechanisms set forth in the Kyoto Protocol. The directive provides, in particular, that greenhouse gas emission quotas must be allocated to the relevant companies under a "National Allocation Plan" (Plan National d'Allocation des Quotas, or "PNAQ"). In France, the GHG directive has principally been transposed by order n° 2004-330 of April 15, 2004 creating a greenhouse gas emission quota exchange system, and by the French Decree  $n^{\circ}$  2004-832 of August 19, 2004 relating to the greenhouse gas emission quota exchange system. Under these regulations, a first PNAQ allocating greenhouse gas emission guotas to the relevant companies for the period from 2005 to 2007 was approved in France by the French Decree n° 2005-190 of February 25, 2005. This plan was finally approved by the European Commission on May 18, 2005. Under the French PNAQ 1, EDF was granted an allocation of approximately 23.5 million tons of CO<sub>2</sub> each year for the period from 2005 to 2007 for its relevant facilities in France, i.e., for combustion facilities of more than 20 MW. Following a preparatory phase, on March 26, 2007, the European Commission pronounced its decision on the French national plan for allocating greenhouse gas emission quotas for the second trading period (2008-2012). PNAQ II was approved by the Decree dated May 15, 2007. It sets the total quantity of CO<sub>2</sub> guotas for this period at 132.8 Mt CO<sub>2</sub>, the quantity of guotas allocated to the electricity sector at 25.6Mt, and, finally, allocates EDF 16.58 Mt CO<sub>2</sub> per annum. PNAQ II stipulates that operators may use, within the limit of 13.5% of the guotas allocated for their facilities, URE or REC (credits from project activities) to meet their quota restitution obligation (see below). It announced the elimination of the option of reserving quotas between the periods 2005-2007 and 2008-2012, but a legislative provision remains necessary to ensure consistency with the Environmental Code.

The order of May 31, 2007, establishes the list of operators allocated greenhouse gas emission guotas and their amounts for 2008-2012.

European directive 2004/101/EC of October 27, 2004 (known as the "emissions credits" Directive) modifying directive 2003/87 was transposed into French Law, in the Environment code (articles L.229-5 et seq), by French Law n° 2005-1319 of October 26, 2005 and implementation decree n° 2006-622 of May 29, 2006. Emissions credits generated by project activities that are eligible for the mechanisms provided for by Articles 6 and 12 of the Kyoto protocol (Joint Implementation (JI) and Clean Development Mechanism (CDM)) may be used in the context of the European market for the exchange of greenhouse gas emission quotas, to satisfy, subject to certain conditions, the annual obligations of quota restitutions that are borne by operators.

The measures were supplemented by Decree and order dated May 29, 2006, and an order dated March 2, 2007, describing the various stages of the national procedure for the approval of projects. Two separate approval procedures are provided for, depending on whether these are CDM or JI projects conducted outside France by French operators, or JI projects implemented in France by foreign or French operators, so-called domestic projects.

Thus the operators affected, including EDF, may, under certain conditions, have recourse to credits from these projects to comply with their annual quota restitution obligations for  ${\rm CO_2}$  emissions from their facilities. The quantity of quotas allocated to EDF for the second period is considerably reduced, hence the company must make wider use of these mechanisms to cover its emissions. The use of credits for this purpose has, however, been limited, and the procedure for approval of projects at the national level is long and complex.

### NATURAL SITES AND CLASSIFIED SITES (BURIED LINES)

The EDF Group is also subject to the regulations for classified and protected sites, under which electricity lines in France must be buried if they are located on classified sites or in national parks.

#### REGULATIONS RELATING TO HEALTH, HYGIENE AND SAFETY

#### ASRESTOS

The EDF Group is also subject to laws and regulations concerning asbestos. In France, regulations namely require the identification of asbestos-containing materials ("ACM") in buildings and, if necessary, monitoring measures or removal of the asbestos-containing materials. EDF is also subject to regulatory obligations regarding information disclosure and the protection of workers likely to inhale asbestos dust.

### LEGIONELLA

EDF operates air cooling towers, in particular, for the requirements of its electricity generation business, which are now subject to ICPE regulations. EDF must, among other obligations, carry out a methodical analysis of the risks of the proliferation of Legionella in its air cooling towers and implement a preventive maintenance plan for cleaning and disinfection. EDF is also obliged to carry out monthly or bimonthly analyses, depending on the type of facility involved. In the absence of any regulations relating to INB air cooling towers, the ASN requested in 2004 that EDF not exceed, pending the adoption of a specific order, certain concentrations of Legionella in its air cooling towers. In June 2006, additional measures were also requested to reinforce the existing surveillance plan, together with the conduct of detailed feasibility studies for each site to strengthen measures for the prevention of legionella in the systems.

### **6.5.4.5** PRINCIPAL DRAFT REGULATIONS LIKELY TO HAVE AN IMPACT ON THE EDF GROUP'S BUSINESS

A number of draft regulations, both at the European Union level and in France, of which the principal ones are described below, are likely to have a significant impact on the EDF Group's business.

### 6.5.4.5.1 FUTURE EUROPEAN UNION REGULATIONS

6.5.4.5.1.1 THE "ENERGY AND CLIMATE CHANGE PACKAGE"

## Presentation of the European Commission's "Energy and climate change package" on January 10, 2007

On January 10, 2007, the European Commission presented its "Energy and climate change package" (see Section 6.5.1.1 ("European

### **Business overview**



legislation")), which gathers all energy sector strategic guidelines presented to the European Council and Parliament, aiming at creating the basis of a true European policy destined to fight against climate change and reinforce energy safety and European Union competitivity. The "Energy and climate change package" includes a strategic analysis report and several other documents concerning the Internal Market of energy, the energy mix, renewable energies and climate change:

- Regarding the Internal Market, the Commission considered various approaches:
  - "To ensure non-discriminatory access to the networks thanks to unbundling". (dissociation of the assets of transmission network managers);
  - "Improving the regulation on network access at national and European levels". The European Commission plans to reinforce the powers of national regulators and their independence, and studies the issue of coordination between regulators;
  - "The reduction of the possible range of unfair competition". The European Commission is developing 3 issues to be considered: to define restrictive rules in relation to transparency; to toughen the system applicable to the access to gas transmission networks and rules relating to long-term gas agreements (transmission and downstream); and eventually to define a new regulatory framework for gas storage;
- The coordination of the GRTs. The European Commission refers to two options:
  - option "ETSO+" or "GIE+": it entails creating a group of GRTs which will be collectively responsible for developing technical standards and rules relating to the networks' security and to monitor the development of the networks;
  - 2. option of regional system operators i.e., cross-border operators;
  - "To provide a clear framework for investment in power plants and for the import and gas transmission infrastructure", (reference to the European monitoring project already mentioned in the Green Paper);
  - "Questions pertaining to small consumers" (private individuals and "small businesses"). In this regard, the report also examines consumer protection, including destitute clients and metering. The European Commission reiterates the legitimacy of public service commitments subject to the condition that they do not represent an obstacle to effective competition. Concerning tariffs, the report indicates that controlling prices may introduce imbalances but may be necessary subject to being targeted "in order to protect consumers in certain specific circumstances, for example during the transitional period towards effective competition."
- Energy mix: the essential document is the Nuclear Tentative Program (*Programme indicatif nucléaire* or "PINC"). It is accompanied by a communication relating to fossil energy and a strategic plan for energy technologies.
- Renewable energy: in addition to two strategic documents concerning renewable energy, this chapter includes a report on biofuel and a proposal for a "heat and cold generated by renewable energy sources" directive.
- Climate: this involves a communication entitled "Limiting global climate change to 2 degrees Celsius: the way ahead for 2020 and beyond".

# The European Union Council of March 8 and 9, 2007 and the following proposals from the European Commission dated January 23, 2008

The European Commission has presented on January 23, 2008, in the form of what is commonly known as the "Climate Package", several text proposals with respect to the combat against climate change.

This step follows the approval by the European Union Council, in March 2007, of an ambitious "climate" action plan which mainly suggested that the EU should reduce its greenhouse gas emissions by at least 20% by

2020, that renewable energies should represent 20% of the energy consumption by the same date, and that energy efficiency should improve by 20% (so-called "3x20" objective).

Tailored to meet that objective, the proposals by the Commission are mainly articulared around five texts: a directive to modify the EU emission trading scheme, an allocation of the efforts between Member States in areas not covered by this scheme (such as transportation, construction or services), a directive to promote renewable energy, a directive on  $\rm CO_2$  capture and sequestration and finally a new set of rules regarding State assistance in the field of environment.

### Directive proposal regarding promotion of renewable sources

This proposal includes a binding proportion – without however specifying what the sanctions would be – of 20% of renewable energy in the final energy consumption of the EU. The global objective is then separated by State, considering inter alia the national energy mix, the potential of each state and its GDP. France has been attributed a binding objective of 23% of renewable energy. Each member State will also have to adopt by 2010 a national action plan regarding appropriate measures to achieve its objectives, and the progression regarding the renewable energy proportion will have to follow an indicative trend. Finally, the text considers the implementation of a transferable origin guarantees regime, meant to allow States to achieve their objectives in the most profitable way.

### Directive proposal to enlarge and reinforce the EU emission trading scheme

Among the main proposed modifications to the trading scheme in place since 2005, the most notable are the replacement of national ceilings limiting the number of emission quotas by a unique ceiling for the EU, the introduction of a number of new industries (aluminum production, petrochemical, air transportation, etc.) and two additional gases, as well as a harmonization of the rules regarding free allocations. A considerable proportion of quotas will be auctioned: from 2013, quotas for the energy sector will be entirely auctioned; in other sectors, the allocation of free quotas will progressively disappear by 2020.

### Directive proposal to introduce a legal framework for safe capture and geological sequestration of carbon dioxide

Capture and sequestration of carbon dioxide (CCS) designates a series of technological processes consisting in capturing the carbon dioxide present in gases emitted by industries, transporting it and injecting it in geological formations. These activities are included in the new EU emission quotas trading scheme. Additionally, in order to encourage capture of  $CO_2$  in coal plants, the directive proposal provides that the operator of a new plant shall assess the feasibility of capture, transportation and sequestration of  $CO_2$  emitted by its plant and, by 2020, all new plants should, if possible, be equipped with the CCS technology. The proposition also regulates sequestration, including through a regime of authorization to explore the underground and to use it for sequestration purposes, the realization of impact studies, environmental inspections and a transfer of liability to the competent national authority after the closing of a sequestration site.

### Decision regarding a new set of rules on State assistance to environment

The main objective of this proposal is to take into account the priority given to the fight against climate change and to instruments deemed necessary to achieve it (energy efficiency, renewable energy, "clean" technologies). It should allow for greater possibilities in the allocation of State assistance.

### Legislative proposal dated September 19, 2007

Following up work submitted by the European Commission on January 10, 2007, the College of Commissioners adopted a third set of legislative proposals to improve operation of the electricity and gas market on September 19, 2007.

Designated as the "third package", the Commission's proposals comprised five documents:

- A directive on electricity amending and supplementing existing directive 2003/54/EC;
- A directive on gas amending and supplementing existing directive 2003/55/EC;
- A regulation on electricity amending and supplementing existing regulation 1228/2003;
- A regulation on gas amending and supplementing existing regulation 1775/2005;
- A regulation instituting a European Agency for Cooperation for national energy regulators.

The Commission's proposals are structured around several core themes:

• The existing provisions concerning unbundling are not sufficient to ensure satisfactory operation of the market

The Commission considers that if the transmission network manager has the status of legal entity within an integrated company, it may treat its associated companies favorably, thus non-discriminatory access to information is not guaranteed and incentives for investment are distorted.

As a result, the Commission considers more effective separation of network managers is necessary.

To comply with this requirement, the Commission has offered Member States a choice between pure and simple separation of transmission network manager's assets (Ownership Unbundling or OU), the solution it prefers, and the alternative of "independent network manager" (ISO – Independent System Operator).

Ownership unbundling imposes on Member States a requirement to ensure the same parties cannot exercise control over a supply company and simultaneously own a holding in, or exercise any rights over, a transmission network or transmission network manager. *Vice-versa*, control exercised over a transmission network manager excludes the possibility of owning any holding in, or exercising any rights over, a supply company

The Commission accepts that Member States may prefer another solution which it describes as a "substitute solution". The option of the "independent network manager" allows vertically integrated companies to retain ownership of network assets, but requires the transmission network itself be managed by an independent network manager – an enterprise or entity separate from the vertically integrated company – which performs all the functions of a network manager. The directive also provides for the implementation of regulations and constant surveillance to guarantee the network manager remains truly independent of the vertically integrated company.

• The independence and powers of national regulators should be extended

The Commission considers that independence of regulatory authorities is a key element for satisfactory operation of the electricity market. It

proposes reinforcing this independence by granting regulatory authorities the status of legal persons, together with financial autonomy and appropriate human and financial resources.

Furthermore, the Commission considers it necessary to extend the jurisdiction of national regulators regarding market regulation.

The proposed extension of jurisdiction particularly affects monitoring compliance by network managers with rules governing third party access, management of congestion, and interconnections. It is also intended to allow national regulators to assess the investment plans of transmission network managers and evaluate the compatibility of such plans with the ten-year development plan for the entire European network.

A European Agency for Cooperation for energy regulators should be established.

The Commission considers it necessary to strengthen co-operation between national regulatory authorities by creating a European Cooperation Agency.

The main missions of the Agency will be as follows: providing a cooperative framework for national regulators and monitoring and assessing activities of European gas and electricity transmission network managers.

To this end, the Agency would have individual decision-making powers and a general consultative role.

• Firm co-operation between transmission network managers is necessary for the satisfactory integration of the gas and electricity markets

Referring to network incidents and general failures occurring in recent years, the Commission considers voluntary co-operation between network managers is insufficient.

In consequence, it proposes to strengthen co-operation between transport network managers in several key areas, in particular: preparing commercial and technical codes, co-coordinating and using networks, planning investments, research and innovation in the common interest.

To this end, the agency would have individual decision-making powers and a general consultative role.

• Close cooperation between transmission network managers is necessary for the satisfactory integration of the gas and electricity markets

Referring to network incidents and widespread failures occurring in recent years, the Commission considers voluntary cooperation between network managers to be insufficient.

In consequence, it proposes strengthening cooperation between transmission network managers in several key domains, including, in particular: preparing business and technical codes, coordinating the use of networks, planning investments, and research and innovation in the common interest.

### 6.5.4.5.1.2 OTHER FUTURE EUROPEAN REGULATIONS

### **Environment**

Following the CAFE (Clean Air For Europe) program, launched in 2001 by the European Commission to improve the quality of air in Europe and the topical strategy on atmospheric pollution of September 21, 2005

### **Business overview**



(communication from the Commission to the Council and the European Parliament) setting out the integrated actions to be taken to reduce the harmful effects of atmospheric pollution on human health and the environment by 2020, a revision of European directive 2001/81/EC (NEC) setting national emission ceilings for certain atmospheric pollutants was initiated. The preliminary consultation phase is now complete; thus a proposal for a modifying directive was scheduled for publication by the Commission in February 2008, but this was deferred until April 2008, notably because of the EU's determination to take account of the "energy package" and difficulties linked to its distribution among Member States. The draft directive would in particular propose instituting a market for SOx and NOx emissions for Member States and tightening up national emission ceilings.

A draft directive on geological storage of carbon dioxide intended to establish a legal framework in the European Union for such storage, with a view to reducing  $\mathrm{CO}_2$  emissions in the atmosphere, is in course of preparation. This should modify directive 2001/80/EC on limiting emissions of various pollutants in the atmosphere from large combustion plants and force operators of new facilities to assess the technical feasibility of retaining and storing  $\mathrm{CO}_2$  and provide for implementation of a  $\mathrm{CO}_2$  retention system. The regulation will thus affect EDF. However the date on which the obligation to equip combustion facilities with such a retention system remains uncertain and depends primarily on evidence of the technical and commercial feasibility of retaining and storing  $\mathrm{CO}_2$ .

The European directive draft of October 24, 2005 which intends to create an European framework in order to protect and preserve the aquatic environment, sets forth that the States will determine the strategy for European maritime waters to obtain, by 2021, a good ecological level of the aquatic environment; monitoring programs and various measures will be adopted. Some of EDF's generation facilities (offshore wind turbines, sea-side power plants or even inland power plants if they can directly or indirectly affect the aquatic environment) could in time be subject to new restrictions.

The draft directive on environmental quality standards in the area of water, amending directive 200/60/EC will establish environmental quality standards limiting the quantity of chemicals (called priority substances) presenting a significant risk to the environment or health in surface water (watercourses, lakes, coastal waters) in the European Union. It will require Member States to ensure compliance with the standards. This obligation could give rise to more rigorous provisions concerning emissions and waste discharge from EDF plants.

Various reasons, including some ecological disasters associated with maritime transport, have led the Commission to prepare a new draft directive on protecting the environment through recourse to criminal law (adoption by the Commission on February 9, 2007). This proposal is intended to identify acts that cause serious damage and are liable to punishment, and to set minimum penalties. As it currently stands, the proposal generally raises the criminal penalties - including for nuclear activities - compared to those already applicable under French Law for similar acts. However, a decision of October 23, 2007, by the CJEC (Court of Justice of the European Communities) on pollution by ships, while confirming the in-principle jurisdiction of the Commission and the Parliament to define offences in order to reinforce environmental protection, rejects their jurisdiction to identify the type and severity of criminal penalties. In these conditions, the current proposal would have to be redrafted without the penalties fixed therein, probably by replacing them by an affirmation of the need to impose effective criminal penalties, which are proportionate and dissuasive; this would allow each Member State a degree of flexibility.

As recommended in the sixth environmental action program, the European Commission published a draft directive defining a framework for the protection of soils on September 22, 2006, which was adopted by the European Parliament at its first reading on November 14, 2007. The European Council of Environmental Ministers, meeting on December 20, 2007, did not adopt this draft directive. Several States opposed it, including France, on the basis of the principle of subsidiarity. The draft seeks to define principles and actions common to all Member States for actively fighting deterioration of soils and preserving their capacity to fulfill their ecological, economic, social and cultural functions. The draft could be reissued at the initiative of the next EU Presidency.

The Commission has instigated the procedure for revising the IPPC Directive ("Integrated Pollution Prevention and Control") of September 24, 1996 (which should be have been transposed by Member States by October 2007 in 2005 (public consultations, in particular, were conducted from May to June 2007)). On December 21, 2007 the European Commission adopted a communiqué on: "Improving policy on industrial emissions and a draft directive on industrial emissions" (integrated reduction and prevention of pollution). This draft directive revises and reworks, in a single legal text, several existing texts, including the IPPC, GIC, Waste Incineration, and VOC, directives. The revision should lead to increased use of Best Available Technologies and extending the scope to other activities. The revised directive should come into force in 2016.

#### Nuclear

The Euratom Treaty celebration was an opportunity for European institutions to draw up an inventory of its applications. It emerged that the Parliament would like joint decision-making to be incorporated in the Euratom Treaty in order to be involved in the decision-making process. Nevertheless, the Community's knowledge of nuclear energy and its relatively recent role in the current energy and climate context were acknowledged, and the fundamental aspects of the Treaty should not be modified in the immediate future.

Moreover, a high-level group on nuclear safety and waste management comprising representatives of Member States and a representative of the Commission was created by the Council during spring 2007. It is responsible for identifying coordinated approaches and proposing recommendations on the safety of facilities and waste management, financing decommissioning, and the management of waste and spent fuel. Its work could eventually result in changes to EU nuclear regulations. The first meeting was held on October 12, 2007.

The Commission would like to harmonize the regimes of nuclear civil liability. It is currently conducting an impact study taking into account the Paris and Vienna Conventions and envisages preparing a "Community-wide" regime.

### 6.5.4.5.2 FUTURE REGULATIONS IN FRANCE

EDF's liability for environmental damages caused by some of its non-nuclear activities should be increased by the coming transposition into French Law of European directive 2004/35/EC of April 21, 2004. The directive provides for a non-retroactive system of objective liability, limited to certain particularly serious environmental damages. Accordingly, the operator of a facility shall be liable if it is possible to establish a causal relation between the damage and its activity. Moreover, the objective sought is to achieve, as far as possible, restoration of the environment which has been damaged. The new regime does not modify in any way the existing rules and indemnities for third parties who have been the victims of pollution. To date the directive has not rendered mandatory a system of financial guarantees.

The Group will also be subject to European directive 2004/40/EC of April 29, 2004 concerning the minimum safety and health requirements as for what concerns employee exposure to risks due to physical agents (electromagnetic fields), which shall be transposed at latest by April 30, 2008. This directive sets forth the minimum requirements concerning risks evaluation and reduction, as well as requirements applicable to employee information and training. Such requirements will affect RTE and ERDF, taking into consideration the electromagnetic fields generated by lines or source stations during works whether under power or otherwise. They will also affect EDF's Generation-Engineering Division which employs electric maintenance employees close to the alternators placed near the exit of the generation plant.

The European directive dated March 14, 2006, on energy efficiency in final utilizations and energy services, which sets forth a tentative goal for consumption reductions for Member States and leaves a significant place for the subsidiarity principle should be transposed into French Law by May 17, 2008. Each State will have to present on three occasions an action plan for energy efficiency (June 30, 2007, June 30, 2011 and June 30, 2014) and the public sector will have to play an "exemplary role". In

addition to the specific effort of customers' information that the directive put on energy suppliers (invoicing and counting requirements), the energy suppliers role is left to Member States' assessment. Thus, this directive's impact will have to be assessed in view of its future translation.

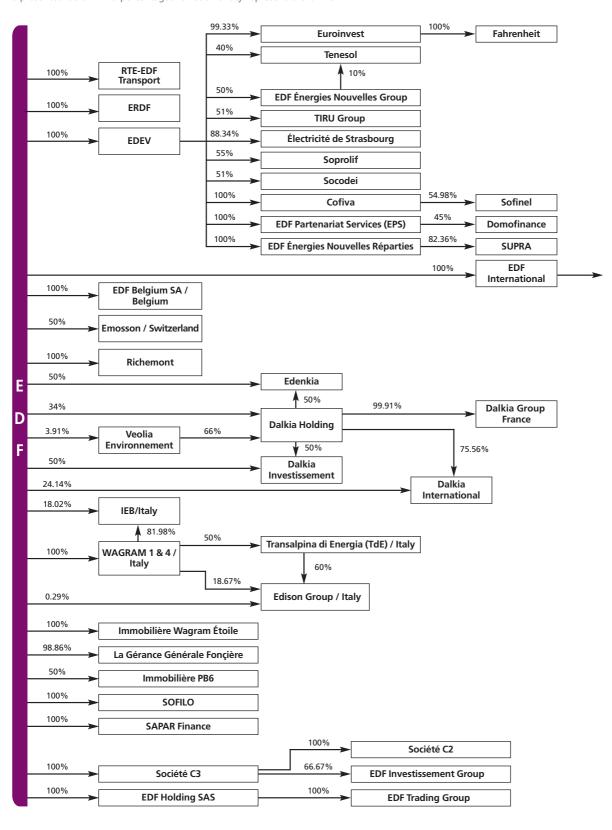
A series of regulations is anticipated following the "Grenelle de l'environnement" (French multi-party forum on the environment) which should, to varying degrees, affect the upstream and downstream activities of EDF. Under the supervision of the follow-up and assessment committees representing stakeholders (trade unions, NGOs, company representatives, authorities, elected representatives), working committees were preparing legal and practical measures implementing the orientations and objectives announced by the President of the Republic of France and the findings of the *Grenelle* environmental round tables held from October 24 to October 26, 2007. A report was submitted on January 6, 2008, by Mrs Corinne Lepage and formulates proposals in the areas of information, expertise and responsibility. A post-Grenelle law, whose examination by Parliament is expected during the summer of 2008 and draft regulations are anticipated, in particular on the themes "energy and carbon efficiency", "buildings and towns", "mobility and transport", "ecological governance", "health/environment", "bio-diversity and water"

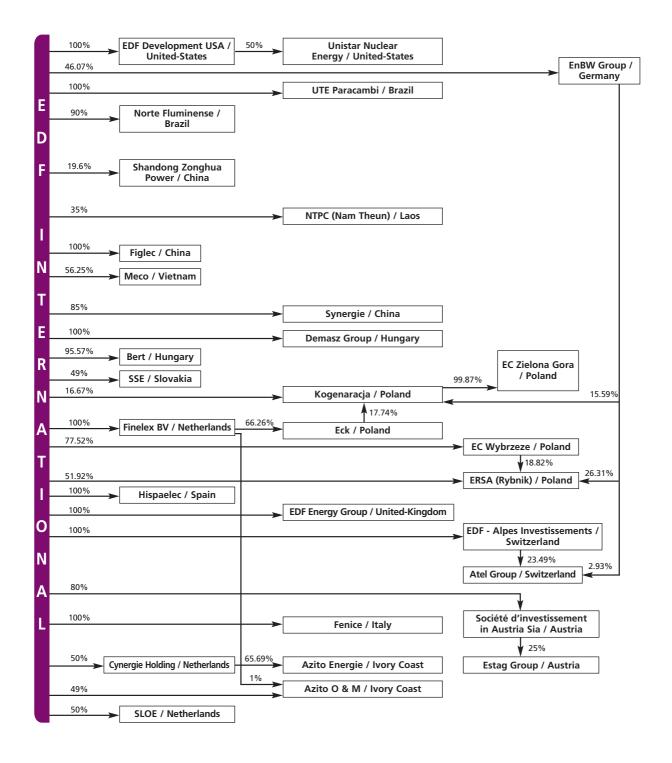
### **Organizational structure**

7



A simplified organizational chart for the Group, as of December 31, 2007, ship interest in share capital (as used for the purposes of consolidation) is presented below. The percentages for each entity represent the owner-





### Organizational structure



The names of all the companies within the Group's consolidation scope are mentioned in note 42 to the consolidated financial statements for the year ended December 31, 2007.

### INFORMATION ABOUT THE SUBSIDIARIES

For a description of the activities of EDF's subsidiaries, their recent acquisitions, their consolidated financial statements and/or their economic weight in the Group, see Section 6.3 ("Presentation of the EDF Group's International Activity") of this *Document de Référence*. In addition, note 7.1 to the consolidated financial statements for the year ended December 31, 2007, provides further financial information on the Group companies presented by geographical zone.

### **FUNCTIONS EXERCISED BY EDF'S MANAGERS**

Functions exercised by EDF's managers in the Group's subsidiaries are set out in Annex C of this *Document de Référence*.

### CONTRACTS WITHIN THE GROUP

### CASH POOLING AGREEMENTS ENTERED INTO BETWEEN EDF AND ITS SUBSIDIARIES

Thanks to the system for cash pooling set up by EDF, all the cash positions of the subsidiaries can be centralized and the Group's liquidity can be optimized. This cash pooling consists in grouping all the cash balances of the subsidiaries with that of the parent company. All the subsidiaries, French or international, in which EDF has effective control participate. RTE-EDF Transport does not participate.

The system for cash pooling in place for the companies of the EDF Group is provided for by the liquidity agreements. Bilateral agreements between EDF and each subsidiary define the specific conditions for each arrangement, such as: remuneration of the balances, etc.

On the international level, subsidiaries taking part in the system enter into a framework agreement, whereby EDF serves as the Liquidity Center.

EDF also centralizes all the currency flows from its French subsidiaries.

#### FINANCIAL FLOWS BETWEEN EDF AND ITS SUBSIDIARIES

Apart from the financial flows relating to cash pooling agreements mentioned above, financial flows between EDF and its subsidiaries also relate to distributions of dividends within the Group. Although a substantial part of the dividends paid by some of the Group's subsidiaries (including EnBW and EDF Energy) are exclusively paid to EDF International (approximately €479 million for the financial year ended December 31, 2007), EDF received approximately €662 million from its other consolidated subsidiaries for the same financial year.

Other financial flows between EDF and its subsidiaries are loans, asset transfers and guarantees effected by the parent company of the Group for the benefit of certain subsidiaries.

In the framework of this Group's financing centralization politic decided in 2006, EDF centralizes the financing of its English subsidiaries (excluding financing of regulated activities). EDF created EDF Investissements Groupe which will, in particular, centralize long term intra-group financing.

The financial flows relating to the fees paid by the subsidiaries are not significant. In effect, the Group's subsidiaries usually have their own central services and operate under their own brands.

A description of the financial flows relating to contracts between EDF and its subsidiaries is set forth in Chapter 19 ("Related party transactions") below.

# Property plant and equipment

8

•	<b>8.1</b> Industrial assets	P. 12
•	<b>8.2</b> Service sector real estate assets	P. 123
	<b>8.3</b> Employers' Participation in the Construction Effort ( <i>Participation des Employeurs à l'Effort de Construction</i> , or "PEEC")	P. 121
	<b>8.4</b> Subsidized home ownership loans	P. 12

# 8.1 Industrial assets

As of December 31, 2007, the net book value of the EDF Group's Property, plant, and equipment was approximately €105 billion

(see notes 20, 21 and 22 to the consolidated financial statements for the fiscal year ending December 31, 2007).

### **8.2** Service sector real estate assets

The Real Estate Pole (which includes the Real Estate Division (*Direction de l'Immobilier*) and its real estate attached subsidiaries) is in charge in France of providing the Group entities with real estate services by managing and optimizing a service sector real estate portfolio of nearly 4.5 million square meters of service premises, of which approximately 77% is owned outright by the Group and 23% is leased from third parties (leases and concessions).

The Real Estate Division is in charge of real estate assets' management, lease management, the technical use of the premises as well as of the maintenance of the premises and of the services provided to the space users, by creating a sub-lease system for Group entities and units. By taking leases from third parties, the Real Estate Division has taken commitments amounting to €983.58 million for the period 2008-2017, as developed in the notes to the consolidated financial statements.

# 8.3 Employers' Participation in the Construction Effort (Participation des Employeurs à l'Effort de Construction, or "PEEC")

EDF is subject to an obligation to participate each year in the construction effort. Its contribution was 0.45% of its payroll, which represented €19.3 million for 2007. In exchange for this payment.

EDF's employees benefit from services intended to facilitate their residential mobility: assistance with renting, assistance with house purchase, assistance with mobility, advice on financing.

### **Subsidized home ownership loans**

As part of its social policy, EDF supports its employees in purchasing their principal residence. Following the conclusion of a cooperation arrangement with the *Crédit Immobilier* de France ("CIF"), the latter now takes care of granting, financing, and managing loans to the company's employees. EDF grants compensation to the CIF for the gap resulting from the difference between the subsidized rate (at which CIF grants

loans to EDF employees) and the rate resulting from the bank survey carried out in 2005 on the basis of which the CIF was chosen.

As of December 31, 2007, the "non-securitized", outstanding balance for personal residence mortgages was €9.7 million on EDF's balance sheet.

9

# **Operating and financial review**

••••	<b>9.1</b> Key figures	P.123
•	9.2 Economic Environment and Significant events	P.124
	9.3 Introduction to analysis of 2007 results	P.135
	<b>9.4</b> Results for 2007	P.136
	<b>9.5</b> Principal sensitive accounting methods involving use of estimates and judgments	P.137
	9.6 Segment reporting of financial information	P.138
	<b>9.7</b> Analysis of the consolidated income statements for 2007 and 2006	P.139
	<b>9.8</b> Breakdown of EBIT by geographical area	P.145
	9.9 Cash flow and indebtedness	P.152
	<b>9.10</b> Management and control of financial risks	P.157
	<b>9.11</b> Provisions	P.165
	<b>9.12</b> Off balance sheet commitments (commitments given)	P.165
	9.13 Subsequent events	P.167

Inclusion by reference: in application of article 28 of EU Regulation 809/2004 of April 29, 2004, the operating and financial review for the year ended December 31, 2006 contained in Chapter 9 (pages 122 to 155) of the Group's 2006 Document de Référence is included by reference in the present document.

# **9.1** Key figures

The figures presented in this document are taken from the EDF Group's consolidated financial statements at December 31, 2007.

Key figures at December 31, 2007 are as follows:

### **Extracts from the consolidated income statements**

Year ended December 31	2007	2006 (1)	Variation	Variation
(in millions of euros)				(%)
Sales	59,637	58,932	705	1.2
Operating profit before depreciation and amortization (EBITDA)	15,210	14,393	817	5.7
Operating profit (EBIT)	9,991	9,356	635	6.8
Income before taxes of consolidated companies (2)	7,457	6,655	802	12.1
Group net income	5,618	5,605	13	0.2

<sup>(1)</sup> The figures published for 2006 have been restated to reflect the change in presentation for net increases in provisions for renewal of property, plant and equipment operated under concession (described in notes 3.2 and 4 to the consolidated financial statements at December 31, 2007).

### **Extracts from the consolidated balance sheets**

Year ended December 31	2007	2006
(in millions of euros)		
Non-current assets	134,572	130,824
Current assets	51,308	48,122
Assets classified as held for sale	269	140
TOTAL ASSETS	186,149	179,086
Equity (EDF Group's share)	27,210	23,309
Minority interests	1,586	1,490
Non-current provisions	44,038	43,124
Other non-current liabilities	64,623	66,241
Current liabilities	48,578	44,806
Liabilities related to assets classified as held for sale	114	116
TOTAL EQUITY AND LIABILITIES	186,149	179,086

### Extracts from the consolidated cash flow statements

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
Net cash flow from operating activities	10,222	11,795	(1,573)	(13.3)
Net cash flow used in investing activities	(5,428)	(13,769)	8,341	(60.6)
Net cash flow used in financing activities	(2,116)	(1,794)	(322)	18.0
Net increase (decrease) in cash and cash equivalents	2,678	(3,768)	6,446	171.1

<sup>(2)</sup> The income before taxes of consolidated companies corresponds to the EDF Group's net income before income taxes, share of net income of companies accounted for under the equity method, net income from discontinued operations and minority interests.



### Information concerning net indebtedness

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
Loans and other financial liabilities	27,930	28,142	(212)	(0.8)
Derivatives used to hedge liabilities	23	237	(214)	(90.3)
Cash and cash equivalents	(6,035)	(3,308)	(2,727)	(82.4)
Liquid assets	(5,682)	(10,154)	4,472	44.0
Net financial liabilities from companies disclosed in non-current liabilities related to assets classified as held for sale	33	15	18	120.0
NET INDEBTEDNESS	16,269	14,932	1,337	8.9

# 9.2

### **Economic Environment and Significant events**

# 9.2.1 Economic environment in the energy sector

### 9.2.1.1 ECONOMIC ENVIRONMENT

### GDP growth 33

2007 saw a slowdown in the world economy. The French National Institute for Statistics and Economic Studies (INSEE) estimated 2007 GDP growth for the principal industrialized countries at +2.4%, after the +2.8% registered in 2006.

According to the same source, GDP growth in the **Euro zone** was expected to be lower in 2007 (+2.6%) than 2006 (+2.9%). GDP growth in **France** is estimated at +1.9% for 2007 (+2.2% in 2006).

For the **United Kingdom**, the estimated 2007 GDP growth is +3.1% (+2.8% in 2006), while for **Germany** it is +2.7% (+3.1% in 2006) and for **Italy** +1.8% (+1.9% in 2006).

The principal factors affecting the economy in 2007 were the subprime mortgage crisis in the USA, which is still ongoing and has led to a fall in liquidities despite several cash injections by the central banks, and a slow-down in investments. Meanwhile, energy prices – particularly oil prices – continued to rise, especially at the end of the year when the price of a barrel of Brent reached \$96. Inflationary pressures were also accentuated by food commodity price trends, for reasons related to both the business environment (bad weather) and the market environment (higher demand and production of biofuels).

### 9.2.1.2 TRENDS IN MARKET PRICES AND SALES TARIFFS FOR ELECTRICITY AND NATURAL GAS

### - Wholesale electricity prices - 2007

Spot prices in France, Germany, the United Kingdom and Italy

Spot electricity prices declined on average on the main European wholesale markets. In **France**, average 2007 spot prices <sup>34</sup> were €40.90/MWh baseload and €58.50/MWh peakload, respectively 17% and 16% lower than in 2006. In 2007, there was relatively little pressure on the supply-demand balance during the first nine months, as mild temperatures in the 1st quarter limited electricity consumption, and the summer was cool. 2006, in contrast, was marked by two periods of extreme weather conditions (a long cold winter in the first quarter and a heatwave in July), which drove spot prices upwards. The collapse of average prices per tonne of CO2 for the first allocation period (2005-2007), from €17.6/tCO<sub>2</sub> in 2006 to €0.7/tCO<sub>2</sub> in 2007, also contributed to the decline in spot prices, both in France and its neighboring countries. From October 2007, French spot prices rose sharply with the increase in fossil fuel prices, due to several cold spells and the unavailability of several plants in France. Under pressure on the supply-demand balance, spot prices reached high levels in late October and mid-November, peaking on November 15 at €314/MWh baseload, the record daily average for French spot electricity prices.

In **Germany** <sup>35</sup>, the decline in spot prices was more pronounced than in France. The 2007 average was €38/MWh baseload and €56.2/MWh peakload, respectively 25% and 23% lower than in 2006. German 2007 spot prices were lower on average than French spot prices (by €2.9/MWh baseload), whereas they had been €1.5/MWh higher on average in 2006. This downward trend was associated with greater windpower output in Germany (+ 15%, with average power of 3.7 GW in 2007 compared to 3.2 GW in 2006) and pressure related to French spot prices late in the year.

In the **United Kingdom,** spot prices <sup>36</sup> stood at €42.20/MWh baseload and €55.90/MWh peakload on average in 2007, respectively 29% and 27% lower than in 2006. The main factor in this decline was the reduction in gas prices in the United Kingdom.

- 33. Source: Note de conjoncture, INSEE, December 2007- extracts.
- 34. Average previous day Powernext price (baseload and peakload) for same-day delivery (€/MWh).
- 35. Average previous day EEX price (baseload and peakload) for same-day delivery (€/MWh).
- 36. Average previous day Platts OTC price (baseload and peakload) for same-day delivery (€/MWh).

The decrease in **Italian spot prices** <sup>37</sup> was on a much smaller scale than in other European countries, with average prices of €71.6/MWh baseload (- 4% from 2006) and €104.6/MWh peakload (- 2% from 2006).

### - Forward prices 38 in France, Germany, and the United Kingdom

**Forward electricity prices** <sup>39</sup> fell in France and the United Kingdom, but rose slightly in Germany compared to 2006.

In **France**, the average price under the 2008 annual contract (baseload) was  $\leqslant$ 54.4/MWh in 2007, 3.5% lower than the 2007 annual contract price quoted in 2006. However, this average masks significant fluctuations. After an initial decrease, the 2008 annual contract price saw a subsequent upturn under the influence of rising fossil fuel prices and Phase II (2008-2012) CO<sub>2</sub> emission quota prices. At the year-end, pressure on French spot prices was reflected in winter forward prices (particularly in the first quarter of 2008), which caused a significant increase in the annual baseload contract price to  $\leqslant$ 66/MWh at the end of the year, an all-time record for a French annual contract.

In **Germany**, a contrasting trend was observed as the annual baseload contract price rose by 2% from 2006 to a 2007 average of  ${\in}55.9/\text{MWh}$ , due to the effect of fossil fuel and CO<sub>2</sub> price increases. German prices were above French annual contract prices by an average of  ${\in}1.5/\text{MWh}$  over the year. However, the price differential between France and Germany reversed in October when French annual contract prices outstripped German prices. At December 31, 2007, the French annual contract price was  ${\in}4.3/\text{MWh}$  above the German annual contract price, although it had started the year  ${\in}1.7/\text{MWh}$  lower. French forward prices rose significantly towards the end of the year in keeping with trends in spot prices.

In the **United Kingdom**, the fall in forward gas prices brought about a decline in forward electricity prices. The April 2008 annual contract price for the first nine months of listing (April 1 to December 31, 2007) was €61/MWh (baseload), 11% lower than under the April 2007 contract for the corresponding period of 2006.

### Forward electricity prices in France, the United Kingdom and Germany in 2006 and 2007



Change in "electric year" in France and Germany: 1st of January. Change in "electric year" in UK: 1st of April.

### - CO<sub>2</sub> emission quota prices

The price of CO<sub>2</sub> emission quotas for Phase I of the trading scheme (2005-2007)  $^{40}$  collapsed in 2007 from €5.6/tCO<sub>2</sub> at January 2 to €0.1/tCO<sub>2</sub> from July, as market actors anticipated that consumption of quotas would be below the volumes allocated.

There was only a slight decrease, however, in the price of CO<sub>2</sub> emission quotas for Phase II (2008-2012)  $^{41}$ . The annual average price of CO<sub>2</sub> emission quotas for delivery in 2008 was €19.6/tCO<sub>2</sub>, 4% lower than the previous year. After dipping early in the year to €12.3/tCO<sub>2</sub> on February 20, CO<sub>2</sub> emission quota prices recovered with the announcement of National Allocation Plans (NAPs) that were more restrictive than expected. They peaked at €25.4/tCO<sub>2</sub> on May 29, and ended the year at €22.5/tCO<sub>2</sub>.

- 37. Average GME price (baseload and peakload) for same-day delivery (€/MWh).
- 38. Italy has no quotations for forward prices.
- 39. Change between 2006 and 2007 in Platts average baseload year ahead index for France and Germany and from April 1, 2008 for the UK.
- 40. Argus index annual contract price for delivery in December (€/t) / Phase I (2005-2007).
- 41. Argus index annual contract price for delivery in December (€/t) / Phase II (2008-2012).



### CO<sub>2</sub> emission quota prices in 2006 and 2007



### - Fossil fuel prices

#### Coal

2008 annual contract prices <sup>42</sup> for coal (delivery in Europe) rose significantly in 2007 to an average \$85.3/t, an increase of 29% compared to the 2007 annual contract quoted in 2006. The overall annual rise was 65%, from \$71.2/t at January 1 to \$117.2/t at December 31. This rise is due to higher worldwide demand driven by economic growth in China and India, while the main coal-exporting countries (particularly Australia and Indonesia) experienced logistical problems and extreme weather conditions that limited export capacities. Maritime freight prices also rose significantly, feeding the rise in coal prices for delivery in Europe: the cost of transporting one ton of coal from South Africa to Europe increased from an average of \$16/t in 2006 to \$32/t in 2007.

#### Oil

Average oil prices (Brent <sup>43</sup> North Sea, Front Month) for 2007 were \$72.5/barrel, up 10% from 2006. After dropping more than \$8/barrel at the beginning of the year, oil prices marked an upturn as a result of increasing political tensions in the Middle East and the Niger Delta, the low level of US oil stocks and the falling value of the dollar, reaching \$96/barrel on November 23. Brent prices then receded slightly at the end of the year to \$93.9/barrel.

### Natural gas

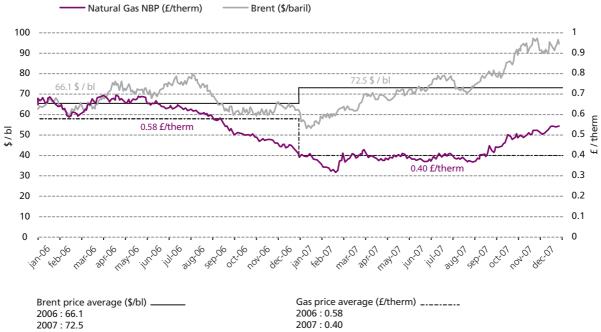
Natural gas prices under the United Kingdom's annual contract <sup>44</sup> fell by 32% compared to 2006 to an annual average of £0.40/therm. The primary explanation was the fall in spot prices (close to 30%) after new pipelines came into operation in late 2006 and new gas fields were opened up. With no pressure on spot prices, annual contract prices for gas followed oil price trends at the end of the year, rising by 47% between September 1 (£0.36/therm) and December 31 (£0.53/therm).

<sup>42.</sup> Average Argus OTC index for delivery in Europe (CIF ARA) the following calendar year (  $\in \! /t)$ 

<sup>43.</sup> Brent first reference crude oil barrel, IPE index (\$/barrel)

<sup>44.</sup> Change between 2006 and 2007 in Platts average OTC index for delivery starting from October of the following year for the UK (£/therm)

### Gas and Brent forward prices in 2006 and 2007



### - Electricity and natural gas sales tariffs

In **France**, electricity sales tariffs fixed by the authorities increased from August 16, 2007 by 1.1% for residential customers and 1.5% for business customers <sup>45</sup>

**In the United Kingdom**, as competition intensified, operators reduced their sales tariffs by an average of 10% to 15% for natural gas and 5% for electricity. EDF Energy decided to reduce its gas prices by 10.2% from June 15, 2007 for residential customers. Since energy prices began another upward trend in the second half of 2007, EDF Energy raised its

gas and electricity prices by 7.9% and 12.9% respectively from

### 9.2.1.3 WEATHER CONDITIONS

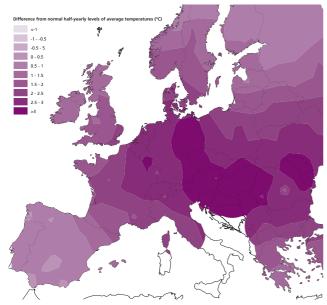
Weather conditions can significantly affect the Group's business, in terms of volumes, prices and costs.

### - Temperatures 46

January 18, 2008.

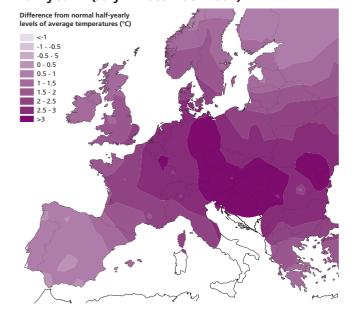
### 2007 half-yearly temperature charts

### Half-year 1 (January - June 2007)



### 45. The "yellow" and "green" tariffs

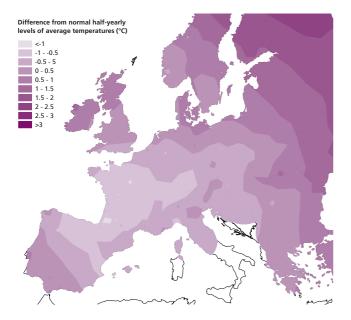
### Half-year 2 (July - December 2007)



<sup>46.</sup> The maps show the difference from normal half-yearly and annual levels of Average Temperatures (no weighting for electricity consumption). Source: Base de Données Climatologiques de METEO FRANCE. (Comparison of average temperatures with normal temperatures over 30 years. For Western Europe, normal temperatures are measured from 1971 to 2000, and for Eastern Europe from 1961 to 1990).



### Annual temperatures 2007 Year 2007 (January – December 2007)



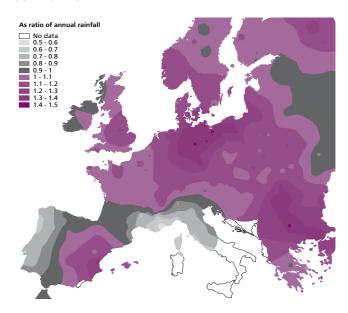
In France, the annual average temperature for 2007 was 12.4°C  $^{47}$ , 0.3°C lower than in 2006 and consistent with the normal level.

However, this apparent stability includes wide variances. 2007 was marked by initial mild weather, a cool summer, and several cold spells towards the end of the year. 2006 saw a cold period in the first quarter, a heatwave in July, and a relatively warm autumn.

Temperatures for the first half-year of 2007 were on average 0.8°C higher than normal, whereas they had been 1.1°C below normal in the first half of 2006. In contrast, in the second half-year of 2007 temperatures were 1.3°C lower than normal, while in the same period of 2006 they had been 1.2°C above normal.

### - Rainfall 48

### 2007 Rainfall



Annual rainfall levels were above normal in much of Europe, with the exceptions of the southern half of France, Italy, and the western third of the Iberian peninsula.

There was a serious shortage of rain in the south-eastern quarter of France (Southern Alps and Southern Massif Central), where many EDF dams are located, and in north Italy. In addition, snowfall was low in all mountain areas early in the year, and this affected water runoff into the dam lakes during the spring thaws. This situation led EDF to pursue its prudent management policy for the hydropower stock, in order to fulfill its obligations related to the multiple uses of water (for agriculture, tourism and other purposes).

Hydropower output by EDF was 2.4% higher than in 2006, although rainfall on EDF production sites was 19% lower than normal.

Along the Mediterranean Arc, only Spain registered good rainfall levels. Conversely, North Germany, Poland, Hungary and Romania saw significantly above-average rainfall.

This overall analysis masks strong contrasts over the year: there were extremely dry months (in France and in many other countries, April and October had no rain) and extremely wet months (for example, the rainy summer in the United Kingdom and Switzerland, which led to very high river levels, as seen in the Rhine in August).

#### - Electricity consumption

In **France,** internal electricity consumption  $^{49}$  for 2007 totaled 480.3 TWh  $^{50}$ , practically the same level as in 2006 (+ 0.4%).

After adjustment for the impact of the unusual weather conditions <sup>51</sup> in the two years 2006 and 2007, electricity consumption in France rose by 2.2%.

Excluding the major companies in the energy sector, internal consumption decreased by 0.3% in gross value, and increased by 1.6% after adjustment for unusual weather conditions.

In the **United Kingdom**, domestic electricity consumption was estimated at 410 TWh, approximately 1% higher than in 2006.

In **Germany**, domestic electricity consumption was estimated at 541 TWh, very slightly higher than in 2006 (+ 0.3%).

In **Italy**, domestic electricity consumption was 339.8 TWh in 2007, an increase of 0.7% from 2006.

- 47. To reflect the impact of temperature on electricity consumption, raw weather data is adjusted to take into account consumption for each region. Source: RTE-EDF Transport.
- 48. Map prepared by EDF based on data from the NOAA (National Oceanic & Atmospheric Administration) and EDF's rainfall network for the French Alps.
- 49. Source: RTE EDF Transport. Provisional figures.
- 50. 1 TWh= 1 billion kWh
- 51. Temperature greatly influences electricity consumption in the summer, but the influence is more marked in the winter. In analysing consumption trends, RTE must therefore correct actual observations in order to eliminate fluctuation due to climate, and use identical benchmark temperatures for the various periods studied.

### 9.2.2 Significant events 52

### 9.2.2.1 CHANGES IN MARKET STRUCTURE AND IMPLEMENTATION OF RECENT REGULATORY CHANGES

### Total opening of the electricity and natural gas market in France from July 1, 2007

After non-residential customers, who became eligible to choose their supplier from July 1, 2004, residential customers have also been eligible since July 1, 2007 <sup>53</sup>. The French electricity market is thus now totally open to competition.

National natural gas markets have also been totally open for all customers since July 1, 2007.

EDF has taken all the necessary steps to guarantee all suppliers access to the electricity distribution network from July 1, in fully equitable and transparent conditions.

### - Formation of Electricité Réseau Distribution France (ERDF)

In application of the French law of December 7, 2006 on the energy sector amending the law of August 9, 2004, designed to transpose the provisions of the EU Directive of June 26, 2003 concerning legal separation of the distribution activity, on June 14, 2007 EDF's Board of Directors approved a partial business transfer agreement (governed by the French laws on demergers) with C6 SA, fully-owned by EDF. An amendment to the agreement was signed on November 7, 2007.

Under the terms of the agreement, EDF was to transfer to C6, subsequently to be renamed *Electricité Réseau Distribution France* (ERDF), public electricity distribution facilities and assets of all kinds owned by EDF and related to the electricity distribution activity.

The transfer took place at net book value for €2.7 billion, with retroactive effect to January 1, 2007 for accounting and tax purposes.

In consideration of the transfer, EDF received 540 million fully paid-up shares with nominal value of  $\leq$ 0.50 issued by the future subsidiary *Electricité Réseau Distribution France* (ERDF) in the form of a capital increase for a total of  $\leq$ 270 million, with an overall premium of  $\leq$ 2.430 billion.

The transfer of assets by EDF to C6 was approved by the shareholders of EDF at an extraordinary meeting on December 20, 2007.

The C6 shareholders' meeting on December 21, 2007 approved the transfer, which took effect at midnight on December 31, 2007 with the company becoming operational at January 1, 2008, and approved the change of name from C6 to *Electricité Réseau Distribution France* (ERDF). ERDF's Executive Board formally recorded the finalization of the transfer on January 2, 2008.

### Transition tariff (Tarif réglementé transitoire d'ajustement de marché or TaRTAM)

The decision of January 3, 2007 clarified the provisions of law 2006-1537 of December 7, 2006 on the energy sector, which among other measures introduced a transition tariff (*Tarif réglementé transitoire d'ajustement de marché* or TaRTAM).

A provision of €470 million was booked in 2006 to cover EDF's contribution to the compensation for electricity suppliers introduced by the tran-

52. Significant events related to litigation are described in chapter 20.5.

53. An "eligible" customer can enter into an electricity purchase contract with the producer or supplier of his choice established in the territory of the European Community or the territory of a State that has signed an international agreement with France (article 20-III of Law 2000-108 of February 10, 2000). sition tariff. A further amount of €248 million was added to the provision for 2007, including an adjustment to the amounts due to competitors and an estimation of the expected levels of the Contribution to the public electricity service (*Contribution au service public de l'électricité* or CSPE) for 2008 and 2009.

### - Partnership agreement with Exeltium

On April 5, 2007, EDF and Exeltium (the consortium of electricity-intensive customers founded by 7 industrial companies, principally Alcan, Arcelor-Mittal, Air Liquide, Rhodia and Solvay) signed an industrial partnership agreement setting forth the terms and conditions corresponding to the memorandum of understanding signed on January 15, 2007, in accordance with the amended French Finance Law of December 31, 2005. This agreement enables Exeltium to have greater visibility over long-term electricity supply prices in return for sharing risks relating to development and operation of EDF nuclear power plants, and covers volumes of some 350 TWh spread over 24 years. The signature of the agreement marked the end of a period of negotiations following Exeltium's call for tenders from electricity suppliers for supplies of maximum volumes of 28 TWh per year. The terms of the agreement are not yet finalized: it was presented to the European Commission in spring 2007. The Commission and the parties to the agreement have been in discussions since then to reach an arrangement that is satisfactory in view of competition rules.

### France's Competition Council accepts EDF's proposals for alternative suppliers

On February 22, 2007, Direct Energie filed a complaint and an application for interim measures with France's Competition Council (*Conseil de la Concurrence*), claiming that EDF had used several practices allegedly constituting abuse of a dominant market position. In a ruling of June 28, 2007, the Council ordered EDF to negotiate in good faith with Direct Energie to establish a transitional contract with a minimum one-year term for supplies at a price that reflects its full production costs, and to make a proposal for electricity wholesale supplies or any solution that would enable alternative suppliers to compete effectively with EDF's retail offers on the free market. The ruling stipulated that EDF could, as it had proposed on June 20, 2007, implement this injunction by submitting one or more commitments (under the procedure set forth in article L.464-2 I of the French Commercial Code) by July 14, 2007.

EDF made a formal proposed commitment on July 13, 2007.

In ruling issued on December 10, 2007, after amendments in view of observations from third parties, the Council accepted EDF's proposed commitments to tender a significant volume of electricity (1,500 MW, i.e. approximately 10 TWh per year for periods of up to 15 years) to alternative suppliers at prices enabling them to compete effectively with EDF's offers on the deregulated mass market. These commitments are now binding.

EDF proposed to apply an average baseload supply price of €42/MWh in current euros for the initial 5-year period 2008-2012. This price is set at €36.8/MWh for the first year, with progressive rises until 2012.

For the second 10-year period, the price is to be fixed at a level that covers the development costs of the Flamanville EPR (estimated in 2006 at €46/MWh at 2005 value), as this is a requirement for sustainable, appropriate development of the electricity sector.



These volumes will be allocated through 3 successive calls for tender in 2008 and 2009, open to all alternative electricity suppliers in France. The bids will concern the price that purchasers are prepared to pay for access to electricity available for the second 10-year period. The minimum capacity accessible to each purchaser is 1 MW. The first contract, for 500 MW, is to be awarded on March 12, 2008.

Direct Energie has appealed against the Council's decision.

### 9.2.2.2 REINFORCEMENT AND MAINTENANCE OF GENERATION CAPACITIES

#### 9.2.2.2.1 NUCLEAR GENERATION

#### A. FRANCE

### - Construction of the Flamanville EPR nuclear power plant

The authorization decree for development of the "Flamanville 3" nuclear power plant was signed by the Prime Minister on April 10, 2007. Construction of the buildings of this future EPR plant at Flamanville in Normandy began on schedule.

The first section of the reactor's concrete floor was poured in December. This major milestone in the project marked the start of construction of the nuclear block.

Preparatory work started in summer 2006, and construction will continue for 54 months until the reactor's planned start-up in 2012.

### - Industrial partnership with Enel

In a partnership agreement signed on November 30, 2007, EDF and Enel defined the terms of an industrial partnership for nuclear energy as follows:

- Enel finances 12.5% of all construction, operation, decommissioning and long-term nuclear waste management expenses for the Flamanville 3 project;
- In return, Enel will receive 12.5% of the electricity generated by Flamanville 3 over its lifetime, delivered in France via the RTE-EDF Transport transmission network;
- The nuclear operator of Flamanville 3 is EDF, which bears full responsibility for its operations;
- Enel is entitled to assign engineers to the teams in charge of the project, and subsequently to the teams operating Flamanville 3, in order to acquire the expertise in the nuclear sector desired by Enel.

Enel also has an option, until 2023, to take a 12.5% stake under similar terms in the five potential EPR projects likely to be implemented by EDF in France up to that date.

To exercise these options, Enel must offer EDF the opportunity to participate under similar terms in future EPR-type nuclear projects that may be undertaken by Enel in Italy or in Europe, or in other similar investment projects.

Prior to making these investments, Enel has the option of progressively acquiring the electricity generated by EDF's nuclear plants, up to a total capacity of 1,200 MW.

The memorandum of understanding with Enel also covers fossil-fired generation facilities.

### Law of June 28, 2006 on sustainable management of radioactive materials and waste

EDF has adapted the presentation and estimation of its nuclear obligations to the requirements of the law of June 28, 2006 and its implementing provisions (decree of February 23, 2007 and decision of March 21, 2007). Application of these rules leads to a €1,258 million increase in provisions for the two years, a cumulative net expense of €111 million for 2006 and 2007, and a €932 million increase in the financial assets dedicated to covering nuclear obligations.

### - Steam generator maintenance

In late 2006/early 2007, EDF observed that in certain nuclear power plants' steam generators, passages for circulation of second circuit water were partly clogged.

Examinations showed that 15 units of the total 58 were potentially affected, and cleaning the steam generators by chemical washing was necessary. This process was planned with the help of the ASN and successfully applied to the first unit during the first half-year of 2007, then rolled out to three other units in the second half of the year.

Curative treatment of all the units concerned is scheduled for the coming years.

The impact on the availability of nuclear plants was 2.2 points in 2007.

### Special program to improve conditions of facilities (Projet "obtenir un état exemplaire des installations")

EDF intends to bring the condition of its facilities to a level comparable to the best international operators. This requires continued improvement of behaviors and practices on maintenance sites, and targeted investment for renovation of premises and equipment. In late 2006, a program developed to improve the conditions of the facilities ("Obtenir un état exemplaire des installations") was launched to improve all nuclear sites to the levels of the best international operating standards. The objective is to bring the 19 nuclear power plants to "good" level in international comparisons on the operation of installations and create conditions that guarantee they will remain at that level. This investment and maintenance program involves outlay of some €600 million over a 5-year period, including €102 million in 2007.

### B. Development of nuclear activities outside France

### United States: EDF and Constellation Energy signed a strategic partnership agreement in July 2007 for the joint development of EPR-type nuclear power plants in the United States

On July 20, 2007, EDF and the US electricity group Constellation Energy (CEG) signed an agreement to form a 50/50 joint venture named UniStar Nuclear Energy, LLC, for the joint development, construction, ownership and operation of EPR-type nuclear power plants in the United States.

This agreement follows a Memorandum of Understanding announced on June 1, 2006 under which both companies agreed to work together on the development of new-generation EPR-type nuclear power plants in the United States.

Under the terms of the agreement, EDF made an initial investment of US \$350 million into the joint venture, which may be followed by subsequent contributions of up to US \$275 million upon reaching certain milestones in the authorization process for EPR projects on CEG's existing sites.

In exchange, Constellation Energy plans to contribute its shareholding in UniStar Nuclear and its right of use for the existing sites Calvert Cliffs Nuclear Power Plant, Nine Mile Point Nuclear Station and R.E. Ginna Nuclear Plant, in order to develop up to four standardized EPR plants. The joint venture is governed by an eight-member board consisting of four EDF-appointed members and four CEG-appointed members, including the chairman and the CEO.

The operation has been approved by the US regulators.

Additionally, under the terms of an investment agreement signed on July 20, 2007, EDF may acquire up to 9.9% of CEG's outstanding shares on the open market within 5 years, 5% of which can be acquired in the twelve months of the agreement.

EDF and CEG have also signed a cooperation agreement to review potential joint developments by both companies in the United States.

### - Strategic nuclear partnership agreement in China

Following on from their industrial partnership announced in October 2006, on November 26, 2007 EDF and CGNPC signed a joint venture agreement for the ownership, construction and operation of two new-generation EPR nuclear reactors at Taishan in the province of Guangdong. The construction of these two EPR units, developed by AREVA at 1,700 MW capacity each, could begin in autumn 2009. The units are expected to come on line in 2014.

Under the joint venture agreement, EDF will acquire a shareholding of approximately one third in Taishan Nuclear Power Company (TNPC), the owner of the EPRs. EDF will primarily contribute its operating expertise, while CGNPC will contribute the site, and provide the engineering and operational skills it has developed over more than twenty years as operator of the Guangdong power plants. EDF and CGNPC have also signed a comprehensive cooperation agreement to study joint development projects in China and internationally.

Furthermore, on August 1, 2007, EDF and China Datang Corporation signed a memorandum of understanding to examine joint development of a planned nuclear plant.

# United Kingdom: EDF intends to participate in British nuclear power projects

Following publication of the Energy White Paper on May 23, 2007 and a widescale public consultation process in the United Kingdom, the British government gave the go-ahead on January 10, 2008 for construction of new nuclear plants. EDF intends to build four EPR-type reactors in the United Kingdom.

Together with Areva, the Group has submitted an application to the relevant British authorities for certification of an EPR plant model of the same type as the plant under construction in Flamanville, France.

### 9.2.2.2 Fossil-fired generation

### EDF reinforces the flexibility of its generation facilities, by investing in semi-baseload and peakload resources

In **France**, EDF's Board of Directors decided on June 14, 2007 to invest €900 million in the construction of new fossil-fired generation facilities. Combined-Cycle Gas (CCG) turbine units – a first for EDF in France – and Combustion Turbine units are to be constructed in addition to the fossil-fired generation capacity extension program already begun under the Group's Industrial Plan.

The Group's objective is to have a further 2,540 MW of generation capacity by 2010 through reactivation of four oil-fired units, and a 2,425 MW increase in natural gas generation capacities <sup>54</sup>.

In the **United Kingdom**, EDF Energy launched construction of a 1,300 MW combined-cycle gas plant at West Burton, due to come on line in late 2010/early 2011, and is continuing to examine other generation capacity extension projects, particularly through combined cycle gas facilities and renewable energies (wind farms) in partnership with *EDF Energies Nouvelles*.

The EDF Group also intends to exploit opportunities for the latest technologies (supercritical coal-fired plants) in Europe and the world, and position itself as a proactive company in the capture, distribution and storage of  $CO_2$  ("CCS: Carbon Capture & Sequestration").

In December 2006, EnBW therefore decided to start construction of a supercritical coal-fired plant with capacity of more than 900 MW at Karlsruhe, in **Germany**.

In **Italy**, Edison completed construction of two 850 MW CCG plants. The Turbigo (Edipower) plant and the Simeri Crichi (Edison) plant came on line in the second half of 2007.

#### 9.2.2.3 HYDROPOWER

### Hydropower plant performance and safety

In 2006, EDF launched a technical renovation and reinforced maintenance program for hydropower facilities (the SuPerHydro program) to renew certain plants, maintain a high level of hydropower safety in the long term, and preserve technical performance for all the relevant facilities. The total budget (expenditure and investments) is some €560 million overall for the period 2007-2011, and program expenditure in 2007 amounted to €81 million.

### 9.2.2.3 DEVELOPMENT IN NEW COUNTRIES

### - Edison's development in Greece

On July 11, 2007, Edison's Board of Directors ratified the signature of a memorandum of understanding between Edison and Hellenic Petroleum for the creation of a 50/50-owned company to operate in the Greek electricity market, with ultimate generating capacity of over 1,400 MW. Hellenic Petroleum will contribute its subsidiary T-Power, which owns a 390 MW combined-cycle gas power plant located in Thessalonica. Edison will contribute its equity investment in a 420 MW combined-cycle site under construction in Thisvi, and in a project under examination to construct a 600 MW coal-fired plant. The new venture is expected to form the second-largest operator on the Greek market.

### - EDF has made its entry into the Netherlands

In July 2006, EDF signed a partnership agreement with the Dutch energy operator Delta NV for development of a project to construct a 870 MW natural gas-fired plant in the south-west Netherlands. On March 29, 2007, EDF and Delta set up a joint company, Sloe Centrale BV, to construct and operate the future plant. Through the partnership, EDF and Delta will each provide 50% of the financing, run the plant jointly and share the electricity output equally. The plant is due to come on line in 2009.

54. Construction of combustion turbines (1,055 MW), construction of a combined cycle gas plant (440 MW) and conversion of the oil-fired plants at Martigues (750 MW) into two CCG plans to operate on semi-baseload (930 MW, i.e. a gain of 180 MW).



# 9.2.2.4 DEVELOPMENT BY EDF ENERGIES NOUVELLES IN THE FIELD OF SOLAR ENERGY AND CONTINUING DEVELOPMENT IN WIND POWER, PARTICULARLY IN THE UNITED STATES

EDF Energies Nouvelles significantly expanded its installed wind power capacities in 2007 by 405 MW gross (265 MW net), bringing it over the threshold of 1,000 MW of net installed capacity.

In Europe, new wind farms came into operation in Italy, Greece, France and the United Kingdom, totaling 224 MW gross (138 MW net). The pace of wind farm construction accelerated in 2007, particularly in France, where thirteen farms totaling 328 MW are under construction, and in Portugal where *EDF Energies Nouvelles* is currently constructing two large-scale wind farms, Alto Minho 240 MW and Arada 112 MW.

In the United States, 2007 saw the commissioning of *EDF Energies Nouvelles'* Fenton windfarm, with capacity of 205 MW gross (119 MW net). The Fenton wind farm is equipped with 137 wind turbines supplied by General Electric and is the largest commissioned by the Group to date. Two other wind farms have also been constructed for non-Group entities: Pomeroy (198 MW), completed at the end of 2007, and Goodnoe (94 MW), to be handed over in early 2008.

EDF Energies Nouvelles continued its policy to secure turbine supplies by signing two major contracts. The first, with General Electric, is an order for a total of 300 MW in capacity, to be completed in the United States in 2009. The second, with REpower, is for 690 MW of capacity for delivery in Europe and the United States in 2009 and 2010. These contracts cover EDF Energies Nouvelles' estimated requirements for turbines for 2008, 2009 and most of 2010.

In the field of solar energy, *EDF Energies Nouvelles* continued its policy of diversifying and securing supplies of photovoltaic modules, through several supply contracts with the US companies First Solar and United Solar Ovonic LLC, the Canadian group ATS and the Chinese companies Solarfun and Yingli. These contracts cover a total of 298 MWp<sup>55</sup>, plus an optional 64.5 MWp, for delivery in the years 2008 to 2012.

### 9.2.2.5 DEVELOPMENT OF NATURAL GAS ACTIVITIES

The EDF Group continued to pursue its development and investment strategy for natural gas activities during 2007, progressively building up a network of gas positions under a complementary geographical approach based on Edison's longstanding projects in South-East Europe and new projects developed by various entities in North-West Europe.

### 9.2.2.5.1 Main developments of 2007 in North-West Europe

After EDF was awarded the tender in 2006 to carry out feasibility studies for the construction of a methane terminal at the port of Dunkirk, and build and operate the terminal, EDF and the Dunkirk Port Authorities signed a memorandum of understanding on March 16, 2007 setting forth the general framework of the terms for use of the site, and cooperation between the parties. The project involves initial capacity of at least 6 Gm³ per year in phase I (the start of operations is planned for 2012), and at least 12 Gm³ per year in phase II.

In compliance with the decision of the French Commission for Public Debate (Commission Nationale du Débat Public - CNDP) of April 4, 2007, EDF and the Dunkirk Port Authorities as project managers carried out an open debate during autumn 2007. At the concluding meeting on December 6, 2007, the French Special Commission for Public Debate (Commission Particulière du Débat Public) stated its "general intention ... to recommend that the French Commission for Public Debate should inform the project managers that it appears possible to proceed with the project". The Commission is expected to issue its formal opinion in early 2008.

Meanwhile, on May 31, 2007 EDF and EnBW announced their joint participation in a plan for **gas storage in salt caverns** in Etzel, Germany. Under the agreements signed, EDF and EnBW will, by 2010, have the use of four caverns providing total storage capacity of 400 million m<sup>3</sup> over 35 years.

Through its wholly-owned subsidiary EDF Trading Ltd, the EDF Group signed a 4½ year agreement with the Qatar gas group Ras Laffan Liquefied Natural Gas Company Limited (II) (RasGas) on June 7, 2007, for flexible supplies of liquefied natural gas (LNG). The annual volume concerned is up to 3.4 million tonnes, equivalent to 4.5 Gm³ or approximately 50 TWh annually.

On June 13, 2007, EnBW signed a Memorandum of Understanding with 4Gas to form a strategic partnership in the **Liongas methane terminal project at Rotterdam**, entitling EnBW to annual capacity of 3 Gm<sup>3</sup> and 15% of the capital of the planned terminal, expected to be operational in 2011 with total capacity of 9 Gm<sup>3</sup> per year.

### 9.2.2.5.2 Main developments of 2007 in South Europe

Work continued on the construction of the future **Rovigo** terminal in the Adriatic sea. Edison is due to start using the terminal immediately after it is opened in late 2008, with access to 6.4 Gm<sup>3</sup> of Qatar gas a year over 25 years.

Edison is involved in two gas pipeline projects:

- The IGI pipeline between Greece and Italy, with annual capacity of 8 Gm<sup>3</sup>, for which an amendment concerning third party access (granting Edison and Depa, the owners of the pipeline, usage rights for the infrastructure) was conditionally approved by the European Commission on May 22, 2007; and
- The GALSI pipeline between Algeria and Italy, with total capacity of 8 Gm<sup>3</sup>. Edison has entered into a natural gas supply contract with Sonatrach for the delivery of 2 Gm<sup>3</sup> a year over 15 years in connection with this project.

In June 2007, EDF set up a consortium with Distrigaz, ENI and Essent Energy Trading, in which EDF acted as the bidder, to reserve the 0.825 Gm³ of capacity released over 3 years for third party access to the **Fos Cavaou terminal**. Through this consortium, EDF will have access to annual capacity of some 0.2 Gm³ when the terminal comes into operation, scheduled for 2008.

In **Spain**, EDF Trading was granted a license to trade on the Spanish market.

With this European approach, EDF is progressively positioning itself as a gas operator in its own right, and has been admitted as a member of Europas, the association for Europa's principal gas companies.

#### 9.2.2.6 ONGOING RESTRUCTURING IN SWITZERLAND

Motor Columbus was renamed Atel Holding AG and made a public exchange offer for Atel shares. After this offer, Atel Holding held 96.04% of shares and thus 99.81% of the voting rights in Atel, enabling it to make a compulsory buyout offer for Atel shares early in 2008. These were further steps towards creating Switzerland's first European-oriented energy company, by the transfer in 2008 of the business and assets of EOS Holding, and potentially those of EDF in Switzerland, to Atel Holding AG to form a fully integrated industrial entity by early 2009. Following completion of all these transactions, EDF will hold approximately 25% in the new entity.

### 9.2.2.7 TAX REFORMS IN GERMANY, ITALY AND THE UNITED KINGDOM

Following the corporate tax reform enacted by the **German** parliament on July 6, 2007, the average corporate income tax rate applicable (including the *Gewerbesteuer*) will be reduced from 38.0% to 29.0% from 2008. At December 31, 2007, this reform is reflected in a lower level of deferred tax liabilities for EnBW, and recognition in the consolidated financial statements of exceptional tax income of approximately €304 million.

Tax reductions on a smaller scale were also introduced in Italy and the United Kingdom. In **Italy**, the tax rate (income tax + IRAP <sup>56</sup>) will decrease to 31.4% in 2008 compared to 37.5% in 2007; in the **United Kingdom**, it will be reduced from 30% to 28% from April 1, 2008.

### 9.2.2.8 EMPLOYEE SHAREHOLDINGS

As as result of EDF's IPO 130,000 current and retired Group employees became shareholders in EDF, particularly through the preferential Employee Offering made in application of laws 2004-803 of August 9, 2004 and 86-912 of August 6, 1986.

Under this offering, 205,923 free shares were allocated to members of the Energie Express scheme on January 30, 2007.

At December 31, 2007, current and retired EDF Group employees held more than 34.6 million EDF shares, equivalent to 1.90% of the Group's capital and 12.6% of the capital in circulation.

Following the sale by the French State of 2.5% of the capital of EDF on December 3, 2007, a preferential offer will be made to current and retired employees of EDF during the first half-year of 2008, covering a volume of shares representing 15% of the total number of shares put on the market, i.e. approximately 0.4% of the capital.

### 9.2.2.9 FREE SHARE PLAN FOR GROUP EMPLOYEES

The General Shareholders' Meeting of May 24, 2007 granted the Board of Directors the power to introduce a free share plan for Group employees within 12 months, covering ordinary shares up to the limit of 0.2% of the share capital, to be awarded to all or some categories of employees or directors and chief officers at EDF or related groups and companies as defined by article L. 225-197-2 of the French commercial code. The list of beneficiaries and the number of shares to be received by each beneficiary were defined at the Board of Directors' meeting held on August 30, 2007.

This free share plan is named ACT 2007, and concerned 2.9 million shares at August 30, 2007. It applies to all employees, i.e. approximately 150,000 beneficiaries spread across 24 countries, with an average of 19.2 shares per beneficiary (minimum 10, maximum 50).

56. Regional generation tax.

Final vesting of the shares will take place on August 31, 2009, subject to the employee having had a contract with the company for the entire vesting period, and achievement of multiannual growth of at least 3% in consolidated EBITDA (organic growth, excluding the effects of changes in scope of consolidation and exchange rates) for the period 2006-2008. The benefit thus granted to employees is valued at €207 million over three years (2007-2008-2009).

# 9.2.2.10 LAUNCH BY THE EUROPEAN COMMISSION OF A PROCEDURE AGAINST FRANCE CONCERNING BREACH OF THE LAW ON STATE AID FOR REGULATED ELECTRICITY TARIFFS IN FRANCE

In a letter dated June 13, 2007, the European Commission initiated a formal inquiry against France over the aid allegedly granted to medium-sized and large companies through the French regulated electricity tariffs. The Commission considered that the low level of the standard "green" and "yellow" tariffs compared to market prices conferred an advantage for some companies. The resulting aid would be open to action from July 1, 2004 for non-residential customers other than small companies. The Commission also considered that for non-residential customers other than small companies, the green and yellow transition tariffs (TaRTAM) could be considered to contain state aid since their introduction.

### **9.2.2.11 METRONET**

EDF Energy is one of the five partners in the Metronet consortium, which carries out maintenance and upgrading work on 9 of London's 12 tube lines for London Underground Ltd.

Metronet's financial position was affected by changes in specifications and the initial scope of the contract, and difficulties encountered in executing the work.

Consequently, as was their right under a clause in the contract with LUL, Metronet's shareholders decided in June 2007 to have the economic terms of the contract reviewed by an independent arbiter, with a view to gaining additional financing from LUL. The resulting additional financing awarded in mid-July was not sufficient to prevent Metronet entering into insolvency administration on July 18, 2007.

Although negotiations between the shareholders, the administrator and the client (Transport for London) have not yet reached a final agreement on the future contractual relationships between the parties, discussions are continuing constructively.

In view of this situation, the provision booked by EDF Energy at June 30, 2007 provides appropriate coverage of the risks to which the Group and EDF Energy consider themselves exposed.

### 9.2.2.12 CHANGES IN THE SCOPE OF CONSOLIDATION

The principal changes in the scope of consolidation are presented in note 6.1 to the consolidated financial statements at December 31, 2007, and relate to the following:

### EnBW: sale of U-plus and consolidation of Drewag and several other companies

In May 2007, EnBW sold its subsidiary U-Plus (a waste processor) to the German company Alba for €35 million.



EnBW also now consolidates the 35%-owned Drewag (the city of Dresden's municipal operator) and six other companies by the equity method. In addition, ESW and GSW are now fully consolidated by EnBW following acquisitions of additional investments.

### - Exercise of Edison warrants

In 2007, conversion of Edison warrants at the exercise price of  $\le$ 1 raised the capital of Edison from  $\le$ 4,273,139,453 at December 31, 2006 to  $\le$ 5,291,664,500 in December 2007.

On January 2, 2008 Edison announced that 99.992% of its warrants issued in April/May 2003 had been exercised, and the balance (91,877 unexercised warrants) was cancelled.

EDF and TDE exercised all of their Edison warrants in December 2007 for €281.549.517 and €210.012.399.

The governance of Edison is unaffected by conversion of the warrants, as the governance agreement with AEM was drawn up on a totally diluted basis, in anticipation of the warrants being exercised. After conversion of the warrants, the EDF group held 50% of the voting rights and 48.96% of the economic interests in the Edison group.

### - Exercise by Edison of its call options on Edipower shares

On July 16, 2007 Edison exercised its call options on Edipower shares held by the financial institutions Interbanca SpA and Albojo (Royal Bank of Scotland). The transfer of these shares (5% of the capital of Edipower) was effective as of July 31, 2007.

Also in 2007, Edison received notification that Unicredit was to exercise its put option for 5% of Edison's capital. The shares were transferred in late January 2008. After completion of these operations, Edison's investment in Edipower increased from 40% to 50% for a transaction value of approximately €265 million.

### - Sale by Edison of its investment in Serene

On February 14, 2007, Edison sold its 66.32% investment in Serene SpA (electricity generation plants benefiting from sales contracts under the CIP6/92 incentive system) to British Gas Italia (a subsidiary of the British Gas Group) for a price of €98 million.

Edison also consolidates the joint venture formed with Hellenic Petroleum, and the company Thisvi Power Generation Plant.

### - Change in consolidation method for SSE (Slovakia)

The Slovakian company SSE, owned 49.0% by EDF, has been proportionally consolidated since January 1, 2007. It was previously accounted for under the equity method.

### -Sale of the residual holding in Edenor

On May 4, 2007, EDF sold its residual 25% investment in the Argentinean electricity distributor Edenor. This sale, amounting to US \$171 million (€125 million), took place as part of Edenor's IPO on the New York and Buenos Aires stock markets on April 10, 2007. The resulting gain amounted to €111 million.

#### - Sale of assets in Mexico

On October 24, 2007 EDF signed an agreement with the Spanish energy operator Gas Natural for the sale of all its assets in Mexico, comprising five combined cycle gas generation units with a total capacity of 2,233 MW (Saltillo, Altamira 2, Rio Bravo 2, Rio Bravo 3, Rio Bravo 4), along with their operating company Comego and a 53 km natural gas pipeline (Gasoducto del Rio). The total value of the transaction is US \$1,448 million.

It was completed on December 27, 2007, generating net-of-tax proceeds of €376 million and a positive €970 million impact on the Group's net indebtedness

### - Electricité de Strasbourg

The major shareholders of Electricité de Strasbourg (a limited company traded on Euronext Paris' Eurolist market), were EDF and the Swiss company Electricité de Laufenbourg, which sold its shares (13.8%) to EDF in September 2007 for €150 million. The resulting goodwill, based on the value of assets and liabilities included in the Group's financial statements, is €126 million.

At December 31, 2007, EDF held 88.34% of Electricité de Strasbourg, and the rest of the shares are publicly traded.

Finally, EDF now applies the full consolidation method to Supra and Fahrenheit and proportional consolidation to Sloe, UniStar Nuclear Energy (UNE), *EDF Investissement Groupe* and Domofinance, and carried out external growth operations in the Dalkia and *EDF Energies Nouvelles* groups.

# 9.3

### Introduction to analysis of 2007 results

# 9.3.1 Declaration of conformity and Group accounting policies

Pursuant to European regulation 1606/2002 of July 19, 2002 on the adoption of international accounting standards, the EDF Group's consolidated financial statements for the year ended December 31, 2007 are prepared under the international accounting standards published by the IASB and approved by the European Union for application at December 31, 2007. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and interpretations issued by the SIC and IFRIC.

The consolidated financial statements for 2007 contain comparative information for the financial year 2006 prepared on the same basis. The financial information for 2006 has been restated to reflect changes in presentation (see note 4 to the consolidated financial statements at December 31, 2007).

# 9.3.2 Changes in accounting methods at January 1, 2007

The accounting and valuation methods applied by the Group in the 2007 consolidated financial statements are identical to those used in the 2006 consolidated financial statements, except for the following standards, amendments and interpretations which became mandatory from January 1, 2007:

- Amendment to IAS 1, "Presentation of financial statements capital disclosures";
- IFRIC 7, "Applying the restatement approach under IAS 29: financial reporting in hyperinflationary economies";
- IFRIC 8, "Scope of IFRS 2, Share-based payment";
- IFRIC 9, "Reassessment of embedded derivatives";
- IFRIC 10, "Interim financial reporting and Impairment": this interpretation stipulates that impairment affecting goodwill and certain financial assets (investments in available-for-sale equity instruments and financial assets carried at cost) recorded in the interim financial statements cannot subsequently be reversed;
- IFRS 7, "Financial instruments: disclosures": this standard requires additional disclosures on financial assets and liabilities, to enable users to evaluate the significance of financial instruments for the entity's financial position and performance, and the nature and scope of the associated risks.

With the exception of the new disclosures required by IFRS 7, these standards, amendments and interpretations have no significant impact on the Group's financial statements.

The Group has made the following decisions regarding standards endorsed by the European Union in 2007 but not yet mandatory in 2007:

- To apply IFRIC 11, "IFRS 2: Group and Treasury Share Transactions" from 2007;
- Not to apply IFRS 8, "Operating segments" before its mandatory application date.

The Group has not opted for early application of the following standards and amendments likely to be endorsed for application by the EU during 2008:

- Revised IAS 1, "Presentation of financial statements";
- Amendment to IAS 23, "Borrowing costs";
- IFRIC 13, "Customer loyalty programmes";
- IFRIC 14, "IAS 19 The limit on a defined benefit asset, minimum funding requirements and their interaction".

The potential impact of all of these standards, amendments and interpretations is currently being evaluated.

IFRIC 12, "Service concession arrangements", is discussed specifically in Note 3 to the consolidated financial statements at December 31, 2007.

### 9.3.3 Comparability

For purposes of comparison between 2006 and 2007, the consolidated financial statements published for 2006 have been restated to reflect the changes in presentation described below:

- Income statement reclassifications: The consolidated income statement published for 2006 has been restated to reflect the change in presentation applied for net increases in provisions for renewal of property, plant and equipment operated under concessions described in note 3.2 to the consolidated financial statements at December 31, 2007.
  - The impacts of these reclassifications on 2006 are described in note 4.1 to the consolidated financial statements at December 31, 2007
- Change in presentation of property, plant and equipment:
   To provide additional financial information reflecting the specificities of concessions, as of January 1, 2007, the Group's property, plant and equipment are reported under three balance sheet headings, according to the business and contractual circumstances of their use.
- The impacts of this change of presentation on the 2006 figures are described in note 4.2 to the consolidated financial statements at December 31, 2007.
- Reclassifications in the nuclear provision accounts:
- The implementing provisions for the French Law of June 28, 2006 on the sustainable management of radioactive materials and waste led to reclassifications in the nuclear provision accounts.
- Details are provided in note 4.3 to the 2007 consolidated financial statements.



# 9.4

### **Results for 2007**

### **9.4.1 Sales**

The EDF Group's **consolidated sales** totaled €59,637 million in 2007, a rise of 1.2% from 2006 reflecting organic growth<sup>57</sup> of 2.5%.

This negative impact of changes in the scope of consolidation amounted to €657 million, i.e. - 1.1% resulting mainly from the sale of Light in Brazil in the second half-year of 2006, acquisitions in the Rest of Europe and disposals in Italy.

Business growth was hindered in Europe by the mild weather, which particularly affected sales volumes.

The foreign exchange effect (principally the fall in the Pound Sterling, and in the rest of the world appreciation of local currencies in the central European countries) was small (- €99 million or - 0.2%).

In France, sales for 2007 rose by + 1.0%.

The positive price effect on electricity sales on the wholesale market more than one year in advance (auctions for which prices were set by contract in 2006 and delivery took place in 2007) and tariff increases in 2006 and 2007 more than compensated for the weather-induced decrease in volumes sold. The Group made 54.0% of its consolidated sales for 2007 in France (54.2% in 2006).

In **Europe excluding France** (the United Kingdom, Germany, Italy and Rest of Europe segments) sales grew by 5.0% (organic growth of 4.4%) in the same mild weather context, and accounted for 43.8% of total consolidated sales in 2007 compared to 42.2% in 2006.

### **9.4.2 EBITDA**

**Consolidated EBITDA** for 2007 was €15,210 million, an increase of 5.7% (+ €817 million) from 2006. Changes in the scope of consolidation had an impact of - €43 million (- 0.3%), largely due to the sale of the Light Group in Brazil and acquisitions in the Rest of Europe.

Foreign exchange effects were negligible (- €20 million or - 0.1%). EBITDA saw organic growth of 6.1%.

In France, EBITDA rose by 6.9%.

France contributed 65.7% of Group EBITDA in 2007, compared to 64.9% in 2006.

In **Europe excluding France**, EBITDA progressed by +7.0%, with organic growth at +4.8%. This organic growth mainly concerned the Rest of Europe (+10.4%) and Italy (+4.4%).

Europe excluding France contributed 32.1% of Group EBITDA in 2007, compared to 31.7% in 2006.

In the **Rest of the World**, EBITDA registered organic growth of + 2.5%.

### 9.4.3 **EBIT**

EBIT totaled €9,991 million in 2007, an increase of 6.8% over 2006. This rise reflects the increase in EBITDA (+ €817 million) and the change in other operating income and expenses (+ €395 million), which more than offset changes in depreciation (- €265 million) and impairment (- €271 million).

### 9.4.4 The Group net income

The **Group net income** for 2007 amounts to €5,618 million compared to €5,605 million for 2006. The increase in income before taxes of consolidated companies (+ €802 million) was almost totally counterbalanced by changes in income taxes (- €695 million) and the share of companies accounted for by the equity method (- €95 million).

### 9.4.5 Net indebtedness

**Net indebtedness**<sup>58</sup> rose by €1,337 million to €16,269 million at December 31, 2007, from €14,932 million at December 31, 2006.

<sup>57.</sup> Organic growth is growth that does not incorporate the positive or negative effects of changes in the scope of consolidation (acquisitions or disposals of subsidiaries), or in exchange rates or accounting methods.

<sup>58.</sup> Net indebtedness comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets comprising funds and interest rate instruments with initial maturity of over three months, that are readily convertible into cash regardless of their maturity and are managed according to a liquidity-oriented policy.

# 9.5

# Principal sensitive accounting methods involving use of estimates and judgments

### 9.5.1 Valuation

The consolidated financial statements are based on historical cost valuation, with the exception of certain financial instruments and available-forsale financial assets, which by convention are stated at fair value.

The methods used to determine the fair value of these instruments are presented in note 2.15 to the consolidated financial statements at December 31, 2007.

### 9.5.2 Management judgment and estimates

The preparation of the financial statements requires the use of judgments, best estimates and assumptions in determining the value of assets and liabilities, income and expenses recorded for the period, and positive and negative contingencies at the year-end. The figures in future financial statements may differ from current estimates due to changes in these assumptions or economic conditions.

The principal sensitive accounting methods involving use of estimates and judgments are described below. Given their importance in the EDF Group's financial statements, the impact of any change in assumption in these areas could be significant.

### 9.5.2.1 NUCLEAR PROVISIONS

The measurement of provisions for the back-end nuclear cycle, decommissioning and last cores is sensitive to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules. A revised estimate is therefore established at each closing date to ensure that the amounts accrued correspond to the best estimate of the costs eventually to be borne by the Group. Any significant differences resulting from these revised estimates could entail changes in the amounts accrued.

These provisions amount to €30,484 million at December 31, 2007 (€28,713 million at December 31, 2006).

A change in the discount rate would be considered as a change in estimate in the same way as a change in disbursement schedule or contractor's quote, and the impacts would be recognized as follows:

- In the corresponding assets when the provision was initially covered by balance sheet assets;
- In the income statement in all other cases.

Such a change could have a significant impact on the consolidated financial statements.

### **9.5.2.2** PENSIONS AND OTHER LONG-TERM AND POST-EMPLOYMENT BENEFITS

The value of pensions and other long-term and post-employment benefit obligations is based on actuarial valuations that are sensitive to assumptions concerning discount rates and wage increase rates, and all the actuarial assumptions used (see note 31.6 to the 2007 consolidated financial statements)

These provisions amount to €13,763 million at December 31, 2007 (€13,928 million at December 31, 2006).

### 9.5.2.3 IMPAIRMENT OF GOODWILL AND LONG-TERM ASSETS

Impairment tests on goodwill and long-term assets are sensitive to the macro-economic and segment assumptions used, and medium-term financial forecasts. The Group therefore revises the underlying estimates and assumptions based on regularly updated information.

The net value of goodwill on subsidiaries and joint ventures is €7,266 million at December 31, 2007 (€7,123 million at December 31, 2006).

### 9.5.2.4 FINANCIAL INSTRUMENTS

In measuring the fair value of unlisted financial instruments (essentially energy contracts), the Group uses valuation models involving a certain number of assumptions subject to uncertainty. Any change in those assumptions could have a significant impact on the financial statements.

### 9.5.2.5 ENERGY AND DELIVERY NOT YET METERED

As explained in note 2.7 to the consolidated financial statements at December 31, 2007, the quantities of energy delivered but neither measured nor billed are calculated at the reporting date based on consumption statistics and selling price estimates. These statistics and estimates are sensitive to the assumptions used in determining the portion of sales not billed at the closing date.

### 9.5.2.6 VALUATION OF OBLIGATIONS CONCERNING FRENCH PUBLIC DISTRIBUTION CONCESSION ASSETS TO BE REPLACED

In view of the specific nature of French public electricity distribution concessions, the Group has opted to present its obligation to renew property, plant and equipment in the balance sheet at a value consisting of the amount of contractual commitments as calculated and disclosed to the grantors in the annual business reports. An alternative approach would be to value the obligations based on the discounted value of future payments necessary for replacement of these assets at the end of their industrial useful life. The impacts of this alternative approach would have had on the accounts are shown in note 3 to the consolidated financial statements. Whatever valuation method is used, measurement of the concession liability concerning assets to be replaced is notably subject to uncertainty in terms of cost and disbursement dates.



## **9.5.2.7** TRANSITION TARIFF (*TARIF RÉGLEMENTÉ TRANSITOIRE D'AJUSTEMENT DE MARCHÉ* OR TARTAM)

To assess the contribution payable by the Group in application of the transition tariff defined in the French law of December 7, 2006, various assumptions have been used based on the best available information and forecasts, particularly regarding the numbers of customers applying to benefit from this tariff, developments in electricity market prices and the share of the compensation to be financed by the Contribution to the

public electricity service (Contribution au service public de l'électricité or CSPE) at each reporting date.

### 9.5.2.8 OTHER MANAGEMENT JUDGMENTS

The use of estimates and assumptions is also particularly important in measuring the amounts of the Contribution to the public electricity service (CSPE) receivable for the year, and in the recognition of deferred tax assets

# 9.6

### Segment reporting of financial information

Segment information for the EDF Group is reported in note 7 to the consolidated financial statements, at December 31, 2007.

The breakdown used by the EDF Group for geographical areas is as follows:

- "France", which refers to EDF and its subsidiaries RTE EDF Transport
  and ERDF, comprising their regulated activities (mainly Distribution and
  Transmission) and deregulated activities (mainly Generation and
  Supply);
- "United Kingdom", which refers to the entities of EDF Energy subgroup;
- "Germany", which refers to the entities of the EnBW subgroup;
- "Italy", which covers all the entities located in Italy, principally the Edison subgroup, TDE, and Fenice;
- "Rest of Europe", which groups together the other European entities, mostly located in continental Europe, and new investments and businesses including Electricité de Strasbourg, Dalkia, Tiru, EDF International, EDF Energies Nouvelles and EDF Trading;
- "Rest of the World", which covers entities in the US, Latin America and Asia.

# 9.7

### Analysis of the consolidated income statements for 2007 and 2006

Years ended December 31 (in millions of euros)	2007	2006 (1)
Sales	59,637	58,932
Fuel and energy purchases	(23,215)	(23,949)
Other external expenses	(9,797)	(8,721)
Personnel expenses	(9,938)	(9,709)
Taxes other than income taxes	(3,236)	(3,175)
Other operating income and expenses	1,759	1,015
Operating profit before depreciation and amortization (EBITDA)	15,210	14,393
Net depreciation and amortization	(5,628)	(5,363)
Net increases in provisions for renewal of property,	(504)	(463)
plant and equipment operated under concessions	(504)	(403)
(Impairment)/Reversals	(150)	121
Other income and expenses	1,063	668
Operating profit (EBIT)	9,991	9,356
Financial result	(2,534)	(2,701)
Income before taxes of consolidated companies	7,457	6,655
Income taxes	(1,841)	(1,146)
Share in income of companies accounted for under the equity method	168	263
Net income from discontinued operations	9	5
GROUP NET INCOME	5,793	5,777
Minority interests	175	(172)
EDF NET INCOME	5,618	5,605
Earnings per share in euros	3.08	3.08
Diluted earnings per share in euros	3.08	3.07

<sup>(1)</sup> The consolidated income statement published for 2006 has been restated to reflect the change in presentation for net increases in provisions for renewal of property, plant and equipment operated under concession (described in notes 3.2 and 4 to the 2007 consolidated financial statements).

### **9.7.1 Sales**

### + 2.5% organic growth in consolidated sales

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
France	32,232	31,927	305	1.0	1.0
United Kingdom	8,353	8,319	34	0.4	1.2
Germany	6,900	6,016	884	14.7	12.5
Italy	4,658	5,615	(957)	(17.0)	(6.1)
Rest of Europe	6,225	4,930	1,295	26.3	11.7
Europe excluding France	26,136	24,880	1,256	5.0	4.4
Rest of the World	1,269	2,125	(856)	(40.3)	3.2
GROUP SALES	59,637	58,932	705	1.2	2.5



The EDF Group's **consolidated sales** totaled €59,637 million in 2007, a rise of + 1.2% from 2006. This increase includes negative effects of changes in the scope of consolidation (€657 million resulting mainly from the sale of Light in Brazil in the second half-year of 2006, acquisitions in the Rest of Europe, disposals in Italy and new or additional investments in Germany), and negative foreign exchange effects of €-99 million or - 0.2%.

Without these effects, sales showed organic growth of +2.5%: +1.0% in France and 4.4% in Europe excluding France.

This organic growth mainly concerned Germany (+ 12.5%) and the Rest of Europe (+ 11.7%). In Italy, there was organic degrowth of - 6.1%.

The period was marked by positive price effects, particularly in the United Kingdom, Germany and the central European countries. Growth in Group sales was curbed by the mild weather in Europe, which led to lower consumption of electricity and natural gas. Sales on the wholesale markets saw contrasting trends in 2007, including a decline in net sales in France and a rise in Germany.

In **France**, sales for 2007 amounted to €32,232 million, corresponding to organic growth <sup>59</sup> of + 1.0%: 0.6 point for natural gas and service sales and 0.4 point for electricity sales. For electricity, the organic growth reflects the impact of price and tariff developments despite the effect of the transition tariff, the mild weather's influence on sales, particularly in the first half-year, and the notable decrease in net sales on the wholesale market related to the lower availability of nuclear installations.

The Group made 54.0% of its consolidated sales for 2007 in France (54.2% in 2006).

In **Europe excluding France**, sales rose by 5.0% to €26,136 million, with organic growth of +4.4%.

The electricity activities progressed while gas activities receded overall due to the mild weather in the early part of the year, which particularly affected EnBW and Edison.

In the **United Kingdom**, EDF Energy registered sales of €8,353 million reflecting growth of 0.4% and organic growth of 1.2%.

In the networks, the tariff rises of 2006 and to a lesser extent those of 2007 contributed to 2.0% growth in sales. In the competitive activities, sales were slightly down from 2006 due to the lower volumes sold as a result of mild weather conditions at the beginning of 2007, and the 10.2% reduction in natural gas tariffs in June 2007.

EDF Energy reduced its natural gas prices from June 15, 2007 and increased network access fees on October 1, 2007.

The company's customer base increased slightly (42,000 additional customer accounts compared to 2006) against fierce competition on price.

In **Germany**, consolidated sales rose by 14.7% to €6,900 million, with organic growth of 12.5%.

EnBW's sales include the 2.2% positive effect of changes in the scope of consolidation, principally resulting from full consolidation of its investment in Stadtwerke Düsseldorf (SWD) over the whole year 2007, compared to nine months in 2006, and the sale of U-plus.

The 21.0% progression in electricity sales reflects significant growth in volumes sold on the wholesale markets (+ 16 TWh), and, to a lesser degree, price increases. Gas activities saw a decline of 14.0% in sales, principally attributable to the mild weather at the start of the year.

In **Italy**, after the various effects of changes in the scope of consolidation, Group sales amounted to €4,658 million, a decrease of 17.0% (organic degrowth of 6.1%). This incorporates the lower sales by Edison, reflecting the decline in gas sales volumes (due to initially mild weather in 2007), which was not fully offset by the slight increase in electricity sales.

In the **Rest of Europe**, sales reached €6,225 million, showing growth of 26.3%. Sales for this area include the positive effect of changes in the scope of consolidation of €671 million (+ 13.6%), principally the change in consolidation method for SSE in Slovakia (proportionally consolidated since January 1, 2007) and *EDF Energies Nouvelles* (fully consolidated since December 31, 2006). Organic growth was 11.7%. This trend is related to *EDF Energies Nouvelles*, which crossed the threshold of 1,000 MW of total installed wind farm capacity at the end of 2007, and price and tariff rises in central European countries. EDF Trading's sales (trading margin) receded slightly, in association with lower pressure on the energy markets for the first nine months of 2007.

The foreign exchange effect, which accounts for 0.9% of sales growth, mainly results from the rise in the value of the Hungarian and Polish currencies.

In the **Rest of the World**, where the Group now makes 2.1% of sales, the contribution to consolidated sales declined by 40.3% overall (with organic growth at 3.2%). This increase includes the negative effects of changes in the scope of consolidation (- 39.8%) following deconsolidation of Light in Brazil at June 30, 2006. Organic growth mainly related to higher electricity generation levels in Asia and better availability in Mexico.

The Group made 46.0% of its consolidated sales outside France (45.8% in 2006).

### **9.7.2 EBITDA**

### 6.1% organic growth in EBITDA

	2007	2006	Variation	Variation	Organic
(in millions of euros)				(%)	growth (%)
Sales	59,637	58,932	705	1.2	2.5
EBITDA	15,210	14,393	817	5.7	6.1

Consolidated EBITDA for 2007 was €15,210 million, an increase of 5.7% from 2006. Organic growth stood at 6.1%.

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
France	9,996	9,348	648	6.9	6.9
United Kingdom	1,285	1,268	17	1.3	2.1
Germany	1,031	996	35	3.5	0.9
Italy	910	928	(18)	(1.9)	4.4
Rest of Europe	1,655	1,371	284	20.7	10.4
Europe excluding France	4,881	4,563	318	7.0	4.8
Rest of the World	333	482	(149)	(30.9)	2.5
GROUP EBITDA	15,210	14,393	817	5.7	6.1

Growth in EBITDA mainly concerned France and the Rest of Europe. **Europe including France** contributed 97.8% of Group EBITDA (96.7% in 2006).

In **France**, EBITDA rose by 6.9%.

France contributed 65.7% of Group EBITDA in 2007, compared to 64.9% in 2006.

In **Europe excluding France**, EBITDA progressed by 7.0%, with organic growth at 4.8%.

In the **Rest of the World**, EBITDA fell significantly (- 30.9%, with organic growth of + 2.5%).

The **EBITDA/sales** ratio for 2007 stood at +25.5% (24.4% in 2006), with contrasting trends in different segments: improvements in the Rest of the World (+3.6 points), Italy (+3.0 points), and France (+1.7 points), and declines in Germany (-1.6 points), the rest of Europe (-1.2 points), and to a lesser extent the United Kingdom (-0.1 points).

### 9.7.2.1 FUEL AND ENERGY PURCHASES

Fuel and energy purchases amounted to €23,215 million, a decrease of €734 million (- 3.1%) from 2006.

Excluding the effect of changes in the scope of consolidation and exchange rates, fuel and energy purchases are stable overall.

They showed a decrease in Italy (-  $\leq$ 1,028 million), the Rest of the World (-  $\leq$ 498 million), the United Kingdom (-  $\leq$ 327 million) and to a lesser extent France (-  $\leq$ 81 million), but increased in Germany (+  $\leq$ 770 million) and the Rest of Europe (+  $\leq$ 430 million).

In **Italy**, changes in the scope of consolidation (primarily the disposals of Rete and Serene) accounted for half of the 24.5% decrease in fuel and energy purchases, and the other half is attributable to trends in the business.

The organic decrease of 11.9% relates to lower sales volumes, optimization of gas supply costs, and to a lesser degree the reduction in electricity purchases caused by the increase in generation capacities (two new plants came on line in 2007, and for two plants 2007 was the first year of full-capacity operation).

The positive impact of hedging derivatives (IAS 39) was also a factor.

In the **Rest of the world**, the - 38.1% decline in EBITDA reflects a positive effect of changes in the scope of consolidation (€498 million related to deconsolidation of Light) and a positive foreign exchange effect (+ €59 million) which more than absorbed the organic rise in expenses (+ €59 million) related to rising coal prices for Figlec (China) and higher spot prices in Brazil in 2007. However, this organic rise was checked by the better availability of the Mexican plants.

In the **United Kingdom**, the - 6.2% decrease is mainly attributable to application of IAS 39 to state outstanding commodity purchase and sale contracts at fair value, and the lower sales volumes resulting from weather conditions.

In **France**, fuel and energy purchases were - 1.0% lower than in 2006, partly due to the impact on nuclear provisions of the implementing provisions issued in 2007 for the law of June 28, 2006 on the sustainable management of radioactive materials and waste. This impact was an expense of - €373 million in 2006, and income of + €262 million in 2007. This more than offset the increase in gas purchases and volumes covered by purchase obligations, and the greater cost of energy purchases to compensate for network losses.

In Germany, the + 22.6% rise in fuel and energy purchases mainly results from purchases on the wholesale markets, related to business growth.

In the **Rest of Europe**, the + 25.0% rise includes the significant effect of changes in the scope of consolidation (+ 14.5%). The organic increase in



fuel and energy purchases (+ 8.7%) in this segment mainly concerns the central European countries, particularly Hungary, where energy purchases by Demasz on the free market (with energy price rises) and the regulated market (with returns of eligible customers and tariff rises) increased markedly.

### 9.7.2.2 OTHER EXTERNAL EXPENSES

Other external expenses amounted to €9,797 million, €1,076 million (+ 12.3%) higher than in 2006, with organic growth at + 11.1%. The increase was observed in all segments except the Rest of the World.

The **Rest of Europe** registered the greatest rise (+ €464 million or + 50.4%). This includes €204 million attributable to changes in the scope of consolidation. Organic growth in other external expenses (+ €261 million) is mainly due to expansion by *EDF Energies Nouvelles* and Dalkia.

In **France**, other external expenses were €412 million (+ 8.1%) higher than in 2006, mainly reflecting maintenance costs, principally for clogged steam generators, and the costs involved in preparing for the residential markets' opening to competition.

In the **United Kingdom**, the €183 million (+ 19.0%) increase in other external expenses is associated with the much higher volumes of construction work (for Powerlink and in the regulated networks), and mainly reflects the rise in marketing expenses incurred for commercial development.

In **Italy**, other external expenses rose by  $\leq$ 59 million (+ 10.8%), primarily due to the increase in purchases of green certificates  $^{60}$ .

### 9.7.2.3 PERSONNEL EXPENSES

**Personnel expenses** amounted to €9,938 million, up by €229 million (+ 2.4%) from 2006, with organic growth at 1.9%.

The increase concerns the Rest of Europe ( $+ \le 126$  million), the United Kingdom ( $+ \le 116$  million) and Germany ( $+ \le 44$  million). Personnel expenses were down in the Rest of the world due to deconsolidation of the Light group from June 30, 2006 ( $- \le 44$  million) and in France ( $- \le 13$  million), and stable in Italy.

Two thirds of the increase observed in the **Rest of Europe** is attributable to changes in the scope of consolidation. The rest is explained by expansion and higher salaries.

In the **United Kingdom**, the 19.0% rise primarily results from the growth in workforce numbers as a result of commercial expansion, and salary rises.

In **France**, the decrease of 0.2% in personnel expenses reflects the fall in workforce numbers (- 2.3%) which offset the impact of salary increases.

#### 9.7.2.4 TAXES OTHER THAN INCOME TAXES

**Taxes other than income taxes** totaled €3,236 million in 2007, an increase of €61 million (+ 1.9%) from 2006. Organic growth was + 1.5%. Most of this increase was caused by rises in business tax in France.

#### 9.7.2.5 OTHER OPERATING INCOME AND EXPENSES

Other operating income and expenses totaled  $\leqslant$ 1,759 million (net income) in 2007,  $\leqslant$ 744 million (+ 73.3%) higher than in 2006, with organic growth of + 61.8%.

This increase mainly reflects developments in France and the Rest of the world

The rise observed in **France** (€717 million) was primarily due to the €407 million rise in the Contribution to the public electricity service (CSPE) (net of hedging derivatives) received in compensation for the additional costs generated by electricity purchase obligations. These additional costs are assessed with reference to spot market prices, which on average were lower in 2007 than 2006. It also reflects the €222 million difference between the €470 million provision booked in 2006 to cover competitor compensation payable under the TaRTAM transition tariff system, and a further €248 million allocated to this provision in 2007 based on the most recent assumptions known to date to the French Energy Regulator (*Commission de Régulation de l'Energie* or CRE) regarding the expense EDF will bear under this system, and the impact of market price developments.

In the **Rest of the World**, other income and expenses resulted in a net expense that was €107 million lower as a result of deconsolidation of the Light group in 2006.

### 9.7.3 EBIT

### 6.8% growth in EBIT

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
EBITDA	15,210	14,393	817	5.7	6.1
Net depreciation and amortization	(5,628)	(5,363)	(265)	4.9	4.6
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(504)	(463)	(41)	8.9	8.9
(Impairment)/Reversals	(150)	121	(271)	NS	NS
Other income and expenses	1,063	668	395	59.1	59.0
OPERATING PROFIT (EBIT)	9,991	9,356	635	6.8	14.3

**EBIT** reached €9,991 billion in 2007, an increase of 6.8% from 2006. This increase reflects the growth in EBITDA and the net income resulting from other income and expenses, which was more than sufficient to offset the changes in depreciation and amortization and impairments.

### 9.7.3.1 NET DEPRECIATION AND AMORTIZATION

Net depreciation and amortization for 2007 amounted to €5,628 million, a rise of €265 million (+ 4.9%) from 2006.

This increase mainly concerned France ( $+ \le 169$  million or 4.6%), largely due to the faster pace of investments, and the Rest of Europe ( $+ \le 84$  million, principally at *EDF Energies Nouvelles* and Dalkia) where it mostly corresponds to business development. Net depreciation and amortization was also higher in the United Kingdom ( $+ \le 28$  million) and Germany ( $+ \le 12$  million), but lower in the rest of the World ( $- \le 17$  million) and Italy ( $- \le 11$  million).

# 9.7.3.2 NET INCREASES IN PROVISIONS FOR RENEWAL OF PROPERTY, PLANT AND EQUIPMENT OPERATED UNDER CONCESSIONS 61

These provisions totaled €504 million in 2007, increasing by €41 million (+ 8.9%) over 2006. Most of the increase was recorded in the France segment (+ €42 million or + 9.2% compared to 2006).

### 9.7.3.3 IMPAIRMENTS/REVERSALS

Impairments totaled a net expense of €150 million in 2007. EDF recorded €143 million of impairment against EnBW's assets following the reduction in transmission network access fees by the regulator.

In 2006, impairments showed a net reversal of €121 million. In 2006, the main factors were €318 million of impairment on EDF's share of EnBW

goodwill (following the reduction in distribution tariffs introduced by the German regulator in 2006) and a €624 million reversal in connection with the sale of Light.

#### 9.7.3.4 OTHER INCOME AND EXPENSES

Other income and expenses amounted to €1,063 million in 2007; they stood at €668 million in 2006.

Variations in this item mainly concern France, and the Rest of Europe to a lesser extent.

In **France**, other income and expenses resulted in net income of €620 million in 2007, compared to €262 million in 2006.

In 2007, this reflects the recognition of the positive €555 million impact on the provision for renewal of changes in the useful lives of substation buildings (extended from 30 to 45 years) and electronic metering equipment (reduced from 30 to 25 or 20 years, depending on the equipment type) and the effect of the reduction in the cost of renewal of electronic metering equipment.

In 2006, other income and expenses in France included an amount of €328 million reversed from provisions due to discontinuation of the exceptional additional pension system.

In the **Rest of Europe**, other income and expenses in 2007 show a net gain of €425 million, principally corresponding to the gain (+ €111 million) recorded by EDF International on the disposal in May 2007 of its 25% residual investment in Edenor, and the gain of €345 million mainly on the sale of Mexican activities.

In 2006, a net gain of €407 million was recorded, mainly resulting from gains on the sale of ASA and two Egyptian power plants.

<sup>61.</sup>The consolidated income statement published for 2006 has been restated to reflect the change in presentation for net increases in provisions for renewal of property, plant and equipment operated under concession.



#### 9.7.4 Financial result

(in millions of euros)	2007	2006	Variation	Variation (%)
Cost of gross financial indebtedness	(1,492)	(1,606)	114	(7.1)
Discount expense	(2,632)	(2,530)	(102)	4.0
Other financial income and expenses	1,590	1,435	155	10.8
GROUP TOTAL	(2,534)	(2,701)	167	(6.2)

The financial result for 2007 was  $\leq$ 2,534 million, reflecting a  $\leq$ 167 million (- 6.2%) decrease in net financial expenses compared to 2006, mainly attributable to the following:

- A 114 million improvement in the cost of gross indebtedness essentially due to deconsolidation of Light,
- A 102 million decrease in discount expenses, particularly for nuclear and pension provisions in France,
- A 155 million improvement in other financial income and expenses, mainly resulting from sales of financial assets.

#### 9.7.5 Income taxes

**Income taxes** for 2007 amounted to €1,841 million, compared to €1,146 million for 2006

The  $\leqslant$ 695 million increase between 2006 and 2007 (+ 60.6%) results from three major factors which partly counterbalanced each other:

- The automatic increase in taxes following the growth in income before taxes of consolidated companies in France;
- Lower net tax savings resulting from non-recurring operations in 2007 (when the sale of the Mexican activities generated a tax saving of €31 million) than in 2006 (when the legal reorganization of the Light group prior to its sale generated a tax saving of €586 million);
- Adjustment of deferred taxes in view of the corporate tax rate reductions enacted in Germany, Italy and the United Kingdom (€493 million).

The main factors explaining the difference between the Group's average effective tax rate for 2007 (24.47%) and the French tax rate applicable for 2007 (34.43%) are:

- Adjustment of deferred taxes following the reduction of the income tax rate mentioned above (€493 million);
- Tax-exemption of gains on the sale of Edenor and the Mexican activities.

#### 9.7.6 Net income, Group share

The **Group share of net income** was €5,618 million at December 31, 2007, + 0.2% higher than in 2006 (€5,605 million).

The rise in income before taxes of consolidated companies (+  $\in$ 802 million) was almost totally offset by the unfavourable variations in income taxes (-  $\in$ 695 million) and the share in income of companies accounted for under the equity method (-  $\in$ 95 million).

### Share in income of companies accounted for under the equity method

The share in income of companies accounted for under the equity method was €168 million in 2007, down by €95 million or - 36.1% from 2006

The main explanations for this decrease are allocations to provisions in the United Kingdom, and lower income in the Rest of Europe (change of consolidation method for SSE) and the Rest of the World (sale of the residual investment in Edenor).

## 9.8

### Breakdown of EBIT by geographical area

The Group's segment reporting principles are presented in note 7 to the consolidated financial statements at December 31, 2007. The breakdown of EBIT by geographical area is as follows:

2007	France	United	Germany	Italy	Rest E	urope excludi	ng Rest of	Total
(in millions of euros)		Kingdom			of Europe	France	the World	
SALES	32,232	8,353	6,900	4,658	6,225	26,136	1,269	59,637
Fuel and energy purchases	(7,944)	(4,975)	(4,176)	(3,161)	(2,149)	(14,461)	(810)	(23,215)
Other external expenses	(5,506)	(1,147)	(1,070)	(606)	(1,384)	(4,207)	(84)	(9,797)
Personnel expenses	(7,343)	(754)	(703)	(185)	(933)	(2,575)	(20)	(9,938)
Taxes other than income taxes	(2,894)	(111)	(11)	(1)	(200)	(323)	(19)	(3,236)
Other operating income and expenses	1,452	(80)	91	204	96	311	(4)	1,759
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTIZATION (EBITDA)	9,996	1,285	1,031	910	1,655	4,881	333	15,210
Net depreciation and amortization	(3,836)	(475)	(363)	(440)	(411)	(1,689)	(103)	(5,628)
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(497)	0	0	0	(7)	(7)	0	(504)
(Impairment)/Reversals	5	(1)	(146)	(8)	0	(155)	0	(150)
Other income and expenses	620	0	18	0	425	443	0	1,063
OPERATING PROFIT (EBIT)	6,288	808	541	462	1,662	3,473	230	9,991

2006 (in millions of euros)	France	United Kingdom	Germany	Italy	Rest Eu	urope excludi France	ng Rest of the World	Total
SALES	31,927	8,319	6,016	5,615	4,930	24,880	2,125	58,932
Fuel and energy purchases	(8,025)	(5,302)	(3,406)	(4,189)	(1,719)	(14,616)	(1,308)	(23,949)
Other external expenses	(5,094)	(964)	(1,054)	(547)	(920)	(3,485)	(142)	(8,721)
Personnel expenses	(7,356)	(638)	(659)	(185)	(807)	(2,289)	(64)	(9,709)
Taxes other than income taxes	(2,839)	(111)	(8)	(1)	(198)	(318)	(18)	(3,175)
Other operating income and expenses	735	(36)	107	235	85	391	(111)	1,015
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTIZATION (EBITDA)	9,348	1,268	996	928	1,371	4,563	482	14,393
Net depreciation and amortization	(3,667)	(447)	(351)	(451)	(327)	(1,576)	(120)	(5,363)
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(455)	0	0	0	(8)	(8)	0	(463)
(Impairment)/Reversals	1	0	(359)	(47)	(64)	(470)	590	121
Other income and expenses	261	1	0	1	406	408	(1)	668
OPERATING PROFIT (EBIT)	5,488	822	286	431	1,378	2,917	951	9,356



#### **9.8.1** France

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
Sales	32,232	31,927	305	1.0	1.0
EBITDA	9,996	9,348	648	6.9	6.9
EBIT	6,288	5,488	800	14.6	14.6

### 9.8.1.1 BREAKDOWN OF FINANCIAL INFORMATION FOR THE "FRANCE" SEGMENT

The following breakdown is applied to France's contribution to Group sales and EBITDA:

#### "Regulated activities", comprising:

- Transmission in mainland France;
- Distribution in mainland France;
- Generation and distribution by EDF in the island energy systems (IES).

The Transmission and Distribution activities are regulated by the Tariffs for Using the Public Transmission and Distribution Networks (TURP). Sales for the regulated activities include the delivery cost included in integrated tariffs.

#### "Deregulated activities" cover:

- Generation, Supply and Optimization in mainland France;
- Sales of engineering and consulting services.

#### 9.8.1.2 MARKET OPENING

The French electricity market has been totally open to competition since July 1, 2007.

At December 31, 2007, EDF's market share for electricity in France was 85.2% for all eligible final customers (compared to 85.3% at December 31, 2006 for final customers, including those who became eligible at July 1, 2007).

#### 9.8.1.3 THE SUPPLY-DEMAND BALANCE

Nuclear generation produced 418 TWh in 2007, 10 TWh or 2.3% less than in 2006; hydropower generation reached 36.6 TWh, an increase of 0.8 TWh (+ 2.4%); fossil-fired generation totaled 18.2 TWh, 7.7% (1.3 TWh) higher than in 2006.

This lower level of nuclear generation resulted from certain unplanned outages and an intensified maintenance program, including chemical treatments for steam generators at four nuclear power plants.

The lower temperatures recorded in the final quarter of 2007 led to greater use of the fossil-fired plants.

Sales to final customers decreased by 7.4 TWh due to weather conditions, particularly in the first half-year.

This weather-related fall in sales was more than offset by growth in demand, excluding the weather effect.

Lower output by the nuclear plants also resulted in a decrease in net sales on the wholesale markets.

#### **9.8.1.4 SALES**

**France** contributed €32,232 million to Group sales, 1.0% more than in 2006. Sales of natural gas and services contributed 0.6 point, and sales of electricity 0.4 point.

The variation in electricity sales includes a positive price effect (+ 1.3%) and a negative volume effect (- 0.6%).

The positive price effect is principally due to wholesale electricity market forward sales for periods of more than one year in advance (auctions for which prices were set by contract in August 2006 and delivery took place in August 2007), despite the negative effect of the TaRTAM system.

Electricity sales volumes were negatively influenced by the weather in the first half-year of 2007, and affected in the second half-year by the effect of lower nuclear generation levels on net sales on the wholesale markets.

#### **9.8.1.5** EBITDA

**France's** contribution to Group EBITDA was €9,996 million, an increase of 6.9% from 2006 (€9,348 million).

In addition to the favorable price effect on sales, and the practical stability of fuel and energy purchases and personnel expenses, this increase results from the favorable impact of the rise in the CSPE and the lower allocation to the TaRTAM provision in 2007. It also reflects the impact of higher external expenses, chiefly related to changes in the way maintenance is organized.

#### Fuel and energy purchases

Fuel and energy purchases in France amounted to €7,944 million in 2007, a decrease of €81 million (- 1.0%) from 2006, partly due to the impact on nuclear provisions of the implementing provisions issued in 2007 for the law of June 28, 2006 on the sustainable management of radioactive materials and waste. This impact was an expense of - €373 million in 2006, and income of + €262 million in 2007 (the total impact for both years was an expense of €111 million).

The €262 million income in 2007 more than offset the increase in gas purchases and volumes covered by purchase obligations, and the greater cost of energy purchases to compensate for network losses.

#### Other external expenses and personnel expenses

Other external expenses amounted to €5,506 million, 8.1% higher than in 2006.

The rise was more notable in the second half-year, and mainly results from higher maintenance costs, particularly for nuclear facilities, the additional costs incurred in preparation for the opening of the residential market to competition (adaptation of customer platforms and adjustments to

information systems), and to a smaller degree expenses associated with the development of service activities.

**Personnel expenses** totaled 7,343 million, practically stable compared to 2006 (- 0.2%) largely due the fall in average workforce numbers (- 2.3%), which offset much of the effect of salary increases.

#### Taxes other than income taxes

These taxes increased by 1.9% (€55 million), principally reflecting business tax rises.

#### Other operating income and expenses

Other operating income and expenses rose in France by €717 million (net income), primarily due to the rise in the CSPE (Contribution to the public electricity service), essentially caused by changes in the compensation receivable in respect of additional costs generated by purchase obligations in mainland France. These additional costs are calculated based on the dif-

ferential between spot market prices and the actual cost of EDF's purchases from generators benefiting from the CSPE arrangement, and rose significantly due to the decline in spot market prices which were on average lower in 2007 than 2006 (€45.1/MWh in 2007, €55.6/MWh in 2006). The increase also reflects the €222 million difference between the €470 million provision booked in 2006 to cover competitor compensation payable under the TaRTAM transition tariff system, and a further €248 million allocated to this provision in 2007 based on the most recent assumptions known to date to the French Energy Regulator (*Commission de Régulation de l'Energie* or CRE) regarding the expense EDF will bear under this system, and the impact of market price developments.

## 9.8.1.6 BREAKDOWN OF FINANCIAL INFORMATION FOR THE "FRANCE" SEGMENT BETWEEN REGULATED AND DEREGULATED ACTIVITIES

The following table shows the variations in sales and EBITDA in France for the Regulated and Deregulated Activities respectively between 2006 and 2007:

	2007	2006	Variation	Variation	Organic
(in millions of euros)				(%)	growth (%)
SALES	32,232	31,927	305	1.0	1.0
Deregulated activities	20,468	20,129	339	1.7	1.7
Regulated activities	12,378	12,419	(41)	(0.3)	(0.3)
Eliminations	(614)	(621)	7	(1.1)	(1.1)
EBITDA	9,996	9,348	648	6.9	6.9
Deregulated activities	6,141	5,374	766	14.3	14.3
Regulated activities	3,855	3,974	(119)	(3.0)	(3.0)

Sales for the **regulated activities** declined by €41 million, principally as a result of the impact of weather conditions on delivery sales.

The **deregulated activities'** sales rose by €339 million. Growth in gas sales and price rises (in regulated tariffs and forward prices) limited the negative impact of the TaRTAM transition tariff system on prices and the fall in net sales on the wholesale markets resulting from lower availability of nuclear plants.

The **regulated activities'** EBITDA declined by €119 million. The higher volumes delivered, excluding the impact of weather conditions, only partly compensated for the effects of the weather and the greater cost of energy purchases to compensate for network losses, which were covered by forward purchases in 2006.

The **deregulated activities'** EBITDA increased appreciably (+ €766 million). due to favorable price effects both on sales and sourcing costs for purchase obligations, which benefited from lower spot prices in the first half of 2007 via the CSPE compensation mechanism. The contrasting effects in 2006 (- €373 million) and 2007 (+ €262 million) of the law of

June 28, 2006 and its implementing provisions also explain this rise in EBITDA for the deregulated activities.

Other factors were the fall in net sales on the wholesale markets resulting from lower availability of nuclear plants, and the rise in operating costs, essentially related to higher maintenance costs.

#### **9.8.1.7** EBIT

France's contribution to Group EBIT was €6,288 million, 14.6% higher than for 2006. This increase primarily results from the increase in EBITDA, together with the improvement in other income and expenses which benefited from reversals from the provision for renewal in the first half-year of 2007 (€555 million), a higher amount than the reversal of €328 million from provisions in 2006 following discontinuation of the exceptional additional pension scheme.

Without these factors, EBIT would have increased by 11.1%.



#### 9.8.2 United Kingdom

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
Sales	8,353	8,319	34	0.4	1.2
EBITDA	1,285	1,268	17	1.3	2.1
EBIT	808	822	(14)	(1.7)	(1.0)

#### 9.8.2.1 SALES

**EDF Energy's** contribution to consolidated sales for 2007 was €8,353 million, an increase of + 0.4% with organic growth of + 1.2% compared to 2006.

This growth includes a - 0.8% foreign exchange effect associated with the fall in value of the pound sterling.

Organic growth reflects positive net price and tariff effects, particularly following increases introduced in 2006, despite the 10.2% reduction in gas prices from June 15, 2007.

Volumes were down slightly. The moderate growth in the customer base (+ 1.0%) could not fully absorb the effects of the exceptionally mild weather.

#### **9.8.2.2** EBITDA

**EDF Energy's** contribution to Group EBITDA stood at €1,285 million for 2007, a slight improvement (+ 1.3%) from 2006 corresponding to organic growth of 2.1%.

Forward purchase and sale contracts, which are derivatives that do not qualify as hedges under IAS 39, had a strongly positive impact in 2007 (+ €151 million) following settlement of 2006 contracts and appreciation

in energy contracts entered into in late 2007 (unrealized positions), driven by rising prices for coal, fuel oil, electricity and gas.

This rise comprises contrasting developments in the regulated and deregulated activities. Network activities continued to benefit from a positive price effect over 2007 (rise in network access fees during 2006 and late 2007), and increasing volumes of work undertaken at the request of customers. The resulting favorable impact was tempered by a fall in volumes due to the mild weather.

In the deregulated activities, this mild weather led to below-forecast sales volumes and the resulting long positions in a declining market eroded margins, especially on natural gas. In a highly competitive environment, EDF Energy continued its commercial and marketing investments to maintain its customer base, and this is reflected in the increase in other external expenses and personnel expenses, although the rise was smaller in the second half-year of 2007.

#### 9.8.2.3 EBIT

**EDF Energy's** contribution to Group EBIT was €808 million, 1.7% lower than 2006.

This decline reflects the practical stability in EBITDA, and the increase in net depreciation and amortization, which resulted mainly from investments in regulated activities, particularly following the regulator Ofgem's 2005 review for the period 2005-2010, as well as investments in generation plants.

#### **9.8.3** Germany

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
Sales	6,900	6,016	884	14.7	12.5
EBITDA	1,031	996	35	3.5	0.9
EBIT	541	286	255	89.2	83.6

#### 9.8.3.1 SALES

**EnBW's** contribution to Group sales for 2007 was €6,900 million, an increase of 14.7% from 2006, with organic growth of + 12.5%.

This incorporates the effect of changes in the scope of consolidation (2.2%) mainly relating to the full consolidation of Stadtwerke Düsseldorf (SWD) over a full year in 2007, compared to nine months in 2006.

The + 12.5% organic growth primarily comprises a volume effect attributable to the electricity activities, which benefited from rising sales volumes on wholesale markets and, to a lesser extent, sales volumes to industrial customers, together with a positive price effect following 2006 price increases.

Sales for the gas activities registered an organic decline of 14.0% in an increasingly competitive environment, the main factor being the lower volumes sold due to the mild weather.

#### 9.8.3.2 EBITDA

**EnBW's** contribution to Group EBITDA increased by 3.5% compared to 2006, with organic growth at +0.9%.

EBITDA growth was more limited than sales growth, largely as a result of the expansion of business on wholesale markets (including purchases of renewable energies), and a significant increase in fuel and energy purchases (+ 22.6%, organic growth + 18.8%).

Other external expenses rose slightly ( $+ \le 16$  million or + 1.5%). Personnel expenses registered an increase of  $\le 44$  million (+ 5.3%) with the growth in workforce and salary rises.

Excluding variations in provisions (mainly nuclear provisions), EBITDA for electricity activities increased, whereas EBITDA for natural gas activities declined substantially.

The progression registered by the electricity activities results from efficient management of power plants, market optimization activities, and improvements in supply margins despite lower network access fees. The lower EBITDA for natural gas activities related to the fall in volumes sold.

The energy and environmental services activity also progressed, benefiting from the extended scope of consolidation (SWD).

#### 9.8.3.3 EBIT

EnBW's contribution to Group EBIT was €541 million, €255 million higher than for 2006. This increase is mainly explained by the lower levels of impairment (€146 million in 2007, principally in respect of transmission networks, compared to €359 million in 2006, principally in respect of distribution networks) booked in the consolidated financial statements following reduction of the network access fees.

#### **9.8.4** Italy

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
Sales	4,658	5,615	(957)	(17.0)	(6.1)
EBITDA	910	928	(18)	(1.9)	4.4
EBIT	462	431	31	7.2	13.7

#### 9.8.4.1 SALES

**Italy** contributed €4,658 million to consolidated sales, a 17.0% decrease from 2006

This decrease comprises the effect of changes in the scope of consolidation (-€613 million or -10.9%), principally relating to the sale by EDF of EDF Energia Italia  $^{62}$  to Edison, the dilutive effect of exercise of Edison warrants on EDF's investment (from 51.58% to 48.96%), and the sales of Edison's holdings in Rete and Serene.

Sales in Italy saw an organic decline of €344 million or 6.1%, mostly concerning Edison.

**Edison** contributed sales of €4,121 million, €313 million lower than in 2006

This decrease comprises a negative effect from changes in the scope of consolidation <sup>63</sup> and an organic decline in sales, essentially in the natural gas activities.

Electricity activities registered a slight increase in sales, mainly deriving from a price effect and a smaller volume effect.

In the natural gas activities, stable prices could not offset the marked decrease in volumes due to lower sales on the residential market caused by the mild weather.

**Fenice's** contribution to Group sales was €537 million, up by 7.8% from 2006. Much of this sales growth results from business in Poland, where there was a favorable volume effect and regulated tariff increases.

#### 9.8.4.2 EBITDA

**Italy** contributed €910 million to the Group's consolidated EBITDA, a decrease of 1.9% (organic growth of 4.4%) compared to 2006.

The 1.9% decrease in EBITDA includes a - 6.4% effect of changes in the scope of consolidation.

EBITDA declined less markedly than sales (- 17.0%), mainly due to the significant decrease in Fuel and energy purchases caused by the lower sales volumes leading to lower purchases, optimization of gas supply costs, and the decrease in electricity purchases due to the expansion in generation capacity.

62.EDF Energia Italia, owned 100% by EDF until its acquisition by the Edison group, is from now on consolidated through Edison at 48.96% in EDF Group.

 $\ensuremath{\mathsf{63}}.$  Dilutive effect of EDF's investment, sale by Edison of Rete and Serene.

This decrease in Fuel and energy purchases more than offset the fall in sales and the rise in other external purchases.

**Edison** contributed €791 million to consolidated EBITDA in 2007, compared to €815 million for 2006, a decrease of - 3.0%. Excluding the effect of changes in the scope of consolidation (principally the disposals of Rete and Serene), EBITDA showed organic growth of 4.2%.

EBITDA for Edison's electricity activities progressed: the main factors were the price effect resulting from higher sales margins on the wholesale markets and with final customers (mostly industrial customers), and better returns on reserves for the network manager. The new Turbigo and Simeri plants came on line in 2007 and the Torviscosa and Altomonte plants were in operation over the whole year, making it possible to reduce electricity purchases

EBITDA for Edison's gas activities registered slight organic degrowth. Volumes decreased sharply due to weather conditions, and this was only partly offset by a positive price effect primarily resulting from the reversal of a provision established in 2006 in connection with resolution 248/04 (capping gas prices), and optimization of procurement conditions.

The decline in margins on sales of installations subject to the CIP6  $^{64}$  incentive system also continued.

**Fenice's** contribution to Group EBITDA stood at €119 million for 2007 compared to €112 million in 2006, an increase of 6.3%. This was achieved, despite the tariff reductions introduced in January 2007, as a result of a productivity drive focusing particularly on purchases (maintenance, optimization of generation facilities).

#### 9.8.4.3 EBIT

**Italy's** contribution to consolidated EBIT reached €462 million, an increase of €31 million or + 7.2% from 2006.

This 7.2% in EBIT after the 1.9% decrease in EBITDA is chiefly explained by impairment of power plants recorded in 2006.

64. The CIP6/92 system provides incentives for construction of renewable energy and similar generation facilities (cogeneration) in Italy. Under this system, several independent producers have signed longterm 8 or 15-year contracts with ENEL (and subsequently GRTN, the Italian national transmission network operator), containing favorable terms for the sale of electricity generated from renewable and similar resources



#### 9.8.5 Rest of Europe

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
Sales	6,225	4,930	1,295	26.3	11.7
EBITDA	1,655	1,371	284	20.7	10.4
EBIT	1,663	1,378	285	20.7	14.4

#### 9.8.5.1 SALES

The **Rest of Europe's** contribution to Group sales rose by €1,295 million or 26.3% to €6,225 million. This comprises the effect of changes in the scope of consolidation (13.6%), principally the change in consolidation method applied to the Slovakian company SSE (previously accounted for under the equity method and now proportionally consolidated) and *EDF Energies Nouvelles* (from proportional to full consolidation), and the effect of acquisitions by Dalkia International. It also incorporates a foreign exchange effect of + 0.9%.

Organic growth in sales by the Rest of Europe reached + 11.7% ( $\le 579$  million), chiefly generated by *EDF Energies Nouvelles* and business in the central Europe countries, whereas EDF Trading's sales were down by 10.3%.

In the **central European countries**, organic sales growth was mainly driven by business in Hungary.

In **Hungary**, Demasz (organic growth of  $\le$ 116 million) benefited from a positive price effect (new regulated tariff decision issued in February 2007) on distribution and regulated sales. Business was also boosted by the return of eligible customers in 2007, and a positive price effect on the open market. Sales by BERt progressed (organic growth of  $+ \le$ 31 million) as the rise in natural gas prices was passed on to residential customers, with no impact on EBITDA.

In **Slovakia** (SSE), the organic growth of €24 million was mainly due to rising wholesale prices in the supply activities.

In **Poland**, the organic growth of €19 million primarily resulted from increases in Rybnik's sales prices to distributors. Sales of heat produced by cogeneration fell sharply due to the mild weather in the early part of

Sales by *EDF Energies Nouvelles* progressed (organic growth of + €198 million) thanks to the existing wind farms' generation activity, and the new wind farms that came into operation in Italy, Greece, the United Kingdom and the United States. There was also a substantial increase in sales of structured assets.

Sales by **EDF Trading** <sup>65</sup> amounted to €670 million, 10.3% lower than the particularly high sales registered in 2006 (€747 million). The lower pressure on energy markets in the first three quarters of the year limited the options for action.

Dalkia registered organic sales growth of €122 million.

#### 9.8.5.2 EBITDA

The contribution to consolidated EBITDA by the **Rest of Europe** was €1,655 million, a rise of €284 million or 20.7% from 2006.

This incorporates the effect of changes in the scope of consolidation (9.8%) and a foreign exchange effect (0.4%).

Organic growth stood at 10.4% (€143 million).

Organic growth in EBITDA in the **central European countries** was + 7.4% (€20 million). It resulted from both favorable price developments and productivity gains. It mainly concerned **Slovakia**, where SSE achieved higher margins on supply due to optimization of its procurement conditions.

In **Hungary**, EBITDA progressed at Demasz due to favorable price effects. In contrast, Bert registered lower volume output, largely as a result of weather conditions. In Poland, the rise in prices compensated for the unfavorable weather effects for cogeneration.

Organic EBITDA growth at *EDF Energies Nouvelles* (€24 million) essentially results from business expansion.

**EDF Trading's** contribution to Group EBITDA decreased in 2007 (€570 million) after the very high level in 2006 (€605 million).

#### **9.8.5.3** EBIT

The **Rest of Europe** contributed €1,663 million to Group EBIT, an increase of €285 million (+ 20.7%) compared to 2006.

This rise mainly reflects the progression in EBITDA, plus gains on the sale of the residual 25% holding in Edenor and the Mexican activities ( $\leqslant$ 456 million in total), compared to gains of  $\leqslant$ 345 million on disposals in 2006. However, growth in EBIT was affected by higher depreciation and amortization ( $+ \leqslant$ 84 million) generated by business expansion.

#### 9.8.6 Rest of the World

(in millions of euros)	2007	2006	Variation	Variation (%)	Organic growth (%)
Sales	1,269	2,125	(856)	(40.3)	3.2
EBITDA	333	482	(149)	(30.9)	2.5
EBIT	229	951	(722)	(75.9)	4.8

#### 9.8.6.1 SALES

The contribution by the **Rest of the World** to Group sales stood at €1,269 million, €856 million or 40.3% lower than in 2006.

This essentially resulted from the negative effect of changes in the scope of consolidation of €846 million, following the sale of Light in August 2006, and a negative foreign exchange effect of €79 million (concerning Mexico and Vietnam).

Organic sales growth was + 3.2%.

In **Mexico**, sales totaled €650 million corresponding to organic growth of 5.5%. This was achieved through better availability, particularly for the Altamira and Rio Bravo 2 plants, despite low use of certain plants in the first half-year of 2007.

In **Asia**, sales stood at €311 million, a decline of 4.3% from 2006. The Meco plant in Vietnam saw satisfactory operation, and the Figlec plant in China maintained sales levels despite difficulties in sourcing quality coal.

#### **9.8.6.2** EBITDA

The **Rest of the World's** contribution to Group EBITDA declined by €149 million (- 30.9%), and comprises the negative effect of changes in the scope of consolidation (- €145 million or - 30.1%) relating to the sale of Light.

Organic growth stood at + 2.5%.

The main factor was the improved availability at the Mexican plants (Altamira and Rio Bravo 2).

In **Asia**, where EBITDA declined by 9.8%, difficulties in sourcing quality coal caused a substantial erosion of Figlec's margin. Measures taken during the second half-year should lead to a recovery in 2008. The decrease in Asia's EBITDA was limited by good results from Meco.

#### 9.8.6.3 EBIT

The contribution by the **Rest of the World** to Group EBIT declined by €722 million. This essentially reflects trends in EBITDA, and a reversal of impairment of €624 million (related to the sale of 79.4% of Light) in 2006 that had no equivalent in 2007.



9.9

#### **Cash flow and indebtedness**

#### 9.9.1 Cash flow

The table below summarizes the cash flows generated by the group over the years 2006 and 2007.

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
Net cash flow from operating activities	10,222	11,795	(1,573)	(13.3)
Net cash flow used in investing activities	(5,428)	(13,769)	8,341	(60.6)
Net cash flow used in financing activities	(2,116)	(1,794)	(322)	18.0
Net increase (decrease) in cash and cash equivalents	2,678	(3,768)	6,446	(171.1)
Cash and cash equivalents – opening balance	3,308	7,220	(3,912)	(54.2)
Effect of currency fluctuations	(42)	(3)	(39)	1,300.0
Financial income on cash and cash equivalents	96	76	20	26.3
Effect of other reclassifications	(5)	(217)	212	(97.7)
Cash and cash equivalents – closing balance	6,035	3,308	2,727	82.4

#### 9.9.1.1 NET CASH FLOW FROM OPERATING ACTIVITIES

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
Income before tax from consolidated companies	7,457	6,655	802	12.1
(Impairment)/Reversals	150	(121)	271	(224.0)
Accumulated depreciation and amortization, provisions and change in fair value	6,130	7,459	(1,329)	(17.8)
Financial income and expenses	642	789	(147)	(18.6)
Dividends received from companies accounted for under the equity method	130	92	38	41.3
Capital gains/losses	(860)	(789)	(71)	9.0
Change in working capital	(269)	654	(923)	(141.1)
Net cash flow from operations	13,380	14,739	(1,359)	(9.2)
Net financial expenses disbursed	(921)	(931)	10	(1.1)
Income taxes paid	(2,237)	(1,462)	(775)	53.0
Marcoule payment	-	(551)	551	(100.0)
Net cash flow from operating activities	10,222	11,795	(1,573)	(13.3)

The net cash flow from operating activities amounted in 2007 to €10,222 million, a decrease of €1,573 million compared to 2006, mainly due to:

• The €1,359 million decrease in net cash flow from operations, despite the higher income before taxes from consolidated companies (+ €802 million). This decrease is mainly related to the change in accumulated depreciation, amortization and provisions and changes in fair value, and the increase in working capital (€923 million).

In 2007, the working capital increased by €269 million (compared to a €645 million decrease in 2006). This effect essentially concerned France. In **France**, working capital increased by €547 million. For operating working capital, this incorporates significant volume effects (particularly on trade receivables, with cold weather at the end of the year leading to much larger quantities of unbilled energy). However, the increase in the operating working capital was tempered by the ongoing optimization

measures implemented under the Altitude performance improvement plan, which saved a further €547 million in 2007. Non-operating working capital also increased slightly, influenced among other factors by a significant rise in the receivable related to the Contribution to the public electricity service (Contribution au service public de l'électricité or CSPE).

Outside France, working capital decreased by €278 million, mainly due to favorable price, volume and other effects in Germany, Italy and the United Kingdom, where EDF Energy continued its customer cycle optimization program.

- The €775 million increase in income taxes paid, which resulted from several factors:
  - the rise in income taxes caused by the increase in income before taxes of consolidated companies in France,
- the net effect of tax savings related to non-recurring operations of 2007 (the sale of activities in Mexico generated a tax saving of €31 million), which were lower than in 2006 (when the legal restructuring prior to the sale of the Light Group generated a tax saving of €586 million).
- tax reassessments in 2007 in Germany and the United Kingdom.
- The €551 million payment made in 2006 in connection with dismantling of the Marcoule site, which had no equivalent in 2007.

**Operating cash flow** <sup>66</sup> totaled €10,647 million in 2007, 4.6% lower than for 2006 (€11,165 million). Details are shown below:

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
Net cash flow from operations	13,380	14,739	(1,359)	(9.2)
Net financial expenses disbursed	(921)	(931)	10	(1.1)
Income taxes paid	(2,237)	(1,462)	(775)	53.0
Change in working capital	269	(654)	923	(141.1)
Taxes generated by non-recurring items	156	(527)	683	(129.6)
Operating cash flow	10,647	11,165	(518)	(4.6)

#### 9.9.1.2 NET CASH FLOW USED IN INVESTING ACTIVITIES

Net cash flow used in investing activities amounted to €5,428 million in 2007 and €13,769 million in 2006.

The following table sets forth the breakdown of net cash flow used in investing activities between purchases and disposals of property, plant and equipment and intangible assets, acquisition of companies net of cash acquired/transferred, and the change in financial assets:

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
Purchases of property, plant and equipment and intangible assets	(7,490)	(5,935)	(1,555)	26.2
Disposals of property, plant and equipment and intangible assets	229	272	(43)	(15.8)
Net CAPEX (1)	(7,261)	(5,663)	(1,598)	28.2
Acquisitions / Disposals of companies, net of cash acquired	253	691	(438)	(63.4)
Changes in financial assets	1,580	(8,797)	10,377	(118.0)
Net Cash flow used in investing activities	(5,428)	(13,769)	8,341	(60.6)

<sup>(1)</sup> In managing its industrial investments, the Group uses the net CAPEX indicator ("Purchases of property, plant and equipment and intangible assets" net of "Disposals of property, plant and equipment and intangible assets") in order to monitor the evolution of its investments in tangible and intangible assets

<sup>66.</sup> EDF uses Operating cash flow, equivalent to Funds From Operations or FFO, as an indicator to assess the Group's capacity to generate free cash flow. Operating cash flow is equivalent to net cash flow from operating activities excluding changes in working capital, less net financial expenses disbursed and income taxes paid, adjusted for the impact of non-recurring tax effect items.



#### Purchases of property, plant and equipment and intangible assets

The purchases of property, plant and equipment and intangible assets (gross capex) amounted to €7,490 million, increasing by €1,555 million (26.2%) compared to 2006  $^{67}$ .

The following table sets forth changes in the Group's purchases of property, plant and equipment and intangible assets by segment over the relevant period:

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
France: Regulated activities	2,569	2,398	171	7.1
France: Deregulated activities	1,970	1,430	540	37.8
TOTAL, FRANCE	4,539	3,828	711	18.6
United Kingdom	1,171	932	239	25.6
Germany	379	283	96	34.0
Italy	397	351	46	13.1
Rest of Europe	934	438	496	113.2
EUROPE (EXCLUDING FRANCE)	2,881	2,004	877	43.8
Rest of the World	70	103	(33)	(32.0)
GROSS CAPEX	7,490	5,935	1,555	26.2

Capital expenditure in **France** increased by €711 million or + 18.6%. It mainly concerned the deregulated activities (+ €540 million), particularly generation, where investments were up by some €500 million. These investments are for development of capacities in nuclear facilities (construction of the EPR in Flamanville) and fossil-fired facilities (reactivation of oil-fired plants, combustion turbines), but also for operating asset maintenance (notably the SuPerHydro program for hydropower, and maintenance programs for nuclear power).

Investments in the networks reached €2,569 million, an increase of €171 million or 7.1%. These investments principally concern major transmission channels and interconnections, and development and renewal of regional networks for the transmission networks, and development, reinforcement and replacement for the distribution networks, as well as preventive measures against weather risks.

In the **Rest of Europe**, capital expenditure reached €934 million in 2007, a €496 million increase from 2006. The major contributing factor was the development, supported by *EDF Energies Nouvelles*, of several wind farms in Europe (Portugal, Greece, Italy, the UK) and the United States. In Central Europe and at Dalkia, capital expenditure also increased, to €269 million.

In the **United Kingdom**, gross capital expenditure progressed by 25.6% to €1,171 million. Investments were mainly for network extension, and to a lesser extent for development of generation and commercial activities.

In **Germany**, capital expenditure (EDF's share) totaled €379 million, up by 34% over 2006 levels. The principal investments related to maintenance of generation and distribution facilities, and development of gas business.

In **Italy**, capital expenditure totaled €397 million (EDF's share), 13.1% higher than in 2006. Edison's investments were slightly lower than the previous year at €243 million (-11.3%). Investments by Fenice rose sharply to €154 million (an increase of €74 million or 92.8%), due to development of new installations in Italy, Poland and Spain.

#### Disposals of property, plant and equipment and intangible assets:

The - €43 million variation is mainly attributable to France, Germany and the United Kingdom.

#### Acquisitions / Disposals of companies, net of cash

This heading comprises acquisitions and disposals of shares in consolidated companies, net of cash acquired or transferred. At December 31, 2007, the main transactions were:

- Disposals of the Mexican entities, Edenor in Argentina, Serene in Italy and U-plus in Germany;
- And acquisitions of UniStar Nuclear Energy Ilc in the United States, and operations by EnBW (principally further investments in Enso, ESW and GSW), Dalkia, EDF Energies Nouvelles, and EDEV.

#### Changes in financial assets

At December 31, 2007 the variation in financial assets amounted to €1,580 million, mainly including a €2,397 million allocation to dedicated assets. The change between 2006 and 2007 is largely explained by the redirection in 2006 of short-term investments resulting from the IPO into vehicles with longer maturity, and also by the reinvestment of some liquid assets during the second half-year of 2007 in short-term cash investments.

#### 9.9.1.3 NET CASH FLOW USED IN FINANCING ACTIVITIES

The following table sets forth the breakdown of the net cash flow from financing activities over the relevant period:

Year ended December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
Issuance of borrowings	7,059	3,686	3,373	91.5
Repayment of borrowings	(6,357)	(4,254)	(2,103)	49.4
Dividends paid by EDF	(3,170)	(1,439)	(1,731)	120.3
Dividends paid to minority interests	(90)	(93)	3	(3.2)
Capital increase subscribed by minority interests	178	24	154	641.7
Increase in special concession liabilities	238	219	19	8.7
Investment subsidies	32	63	(31)	(49.2)
Capital increase by EDF	(6)	-	(6)	-
Net cash flow used in financing activities	(2,116)	(1,794)	(322)	18.0

In 2007, the cash flow related to financing activities generated a net outflow of €2,116 million, a €322 million difference compared to 2006. This change is mainly due to:

- Dividends paid out by EDF: €3,170 millions in 2007 compared to €1,439 million in 2006;
- And issuance of borrowings net of repayments: €702 million in 2007 compared to a net repayment of €568 million in 2006.

#### 9.9.2 NET INDEBTEDNESS

Net indebtedness comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets with original maturity of over three months that are readily convertible into cash regardless of their maturity and that are managed according to a liquidity oriented policy.

The following table shows the changes in the EDF Group's net indebtedness:

Year ended in December 31 (in millions of euros)	2007	2006 (1)	Variation	Variation (%)
Operating profit before depreciation and amortization (EBITDA)	15,210	14,393	817	5.7
Cancellation of non-monetary items included in EBITDA	(1,584)	(325)	(1,259)	387.4
Change in net working capital	(269)	654	(923)	(141.1)
Other items (2)	23	17	6	35.3
Net Cash flow from operations	13,380	14,739	(1,359)	(9.2)
Acquisitions of intangible assets and property,	(7,261)	(5,663)	(1,598)	(28.2)
plant and equipment, net of disposals	(7,201)	(3,003)	(1,550)	(20.2)
Net financial expenses disbursed	(921)	(931)	10	1.1
Income tax paid	(2,237)	(1,462)	(775)	(53.0)
Free cash flow	2,961	6,683	(3,722)	(55.7)
Financial investments	(2,634)	(2,704)	70	(2.6)
Dividends paid	(3,260)	(1,532)	(1,728)	112.8
Payment related to the dismantling of the Marcoule site	-	(551)	551	NA
Other items (3)	621	354	267	75.4
Changes in net indebtness, excluding the impact of changes in scope of consolidation and exchanges rates	(2,312)	2,250	(4,562)	(202.8)
Effect of change in scope of consolidation	198	1,287	(1,089)	(84.6)
Effect of exchange rate fluctuations	622	79	543	687.3
Other non-monetary changes (4)	155	44	111	252.3
(Increase) / Decrease in net indebtedness	(1,337)	3,660	(4,997)	(136.5)
Net indebtness at beginning of period	14,932	18,592	(3,660)	(19.7)
Net indebtness at the end of period	16,269	14,932	1,337	9.0

<sup>(1)</sup> The figures published at December 31, 2006 have been restated to reflect the reclassification of net increases in provisions for renewal of property, plant and equipment operated under concessions in France.

(2) Includes essentially dividend from companies consolidated under the equity method.

(3) Including the impact of Edison warrants exercised in 2007 (€112 million).

(4) Includes essentially adjustments to fair value and reclassifications having an impact on net indebtedness.



The Group's net indebtedness stood at €16,269 million at December 31, 2007, €1,337 million higher than at December 31, 2006 (€14,392 million). This increase results primarily from:

- The free cash flow generated (€2,961 million in 2007) which was lower than in 2006 (€6,683 million in 2006), primarily due to net capital expenditure by the Group (€7,261 million compared to €5,663 million in 2006) and the large amount of income taxes paid (€2,237 million);
- And dividends paid (€3,260 million), including an interim dividend of €1,057 million paid by EDF in 2007 for which there was no equivalent in 2006.

The changes in the contribution of each geographical area to net indebtedness were as follows:

December 31 (in millions of euros)	2007	2006	Variation	Variation (%)
France	8,112	5,940	2,172	36.6
United Kingdom	5,890	6,413	(523)	(8.2)
Germany	1,476	1,766	(290)	(16.4)
Italy	1,061	(99)	1,160	NS
Rest of Europe	(730)	(501)	(229)	45.7
Rest of the World	426	1,398	(972)	(69.5)
Total	16,235	14,917	1,318	8.8
Net financial liabilities of companies included in liabilities related to assets classified as held for sale	34	15	19	126.7
TOTAL GROUP	16,269	14,932	1,337	9.0

The rise in indebtedness concerns France and Italy.

In **France**, the significant increase in capital expenditure and the higher dividend payments (€1,728 million, including €1,057 million for EDF's first interim dividend) explain the higher level of indebtedness;

In **Italy**, partial liquidation of Italenergia Bis contributed to the increase in indebtedness, despite the favorable effect of warrants exercised.

The substantial reduction in net indebtedness in the **Rest of the world** (-€972 million) chiefly reflects deconsolidation of the debts of the Group's Mexican subsidiaries after their sale (they contributed indebtedness of €706 million at December 31, 2006). Another secondary factor was the lower indebtedness of Group subsidiaries in the Asia-Pacific area.

The reductions in indebtedness in the **United Kingdom** (- €523 million) and **Germany** (- €290 million) are mainly due to the improvement in these segments in working capital, which covered financing for a large portion of operating investments. In the United Kingdom, the reduction was also due to favorable exchange rate variations.

In the **Rest of Europe**, the decrease of €229 million results from the cash contribution to the new subsidiary *EDF Investissement Groupe*, partly offset by the effect of sustained growth in investments in renewable energies.

### 9.10

#### Management and control of financial risks

In addition to this section on the management and monitoring of financial risks, readers should refer to section 4.1 of this document on risk management and control in the EDF Group.

This chapter sets forth the Group's policies and principles for management of financial risks (interest rate, foreign exchange rate, liquidity, equity and counterparty risks). These principles apply only to operationally controlled subsidiaries (i.e. entities other than Edison, EnBW and Dalkia) or subsidiaries that do not benefit by law from specific guarantees of independent management (RTE-EDF Transport and EDF Réseau Distribution France (ERDF)). In compliance with IFRS 7, the following paragraphs include information on the nature of risks resulting from financial instruments, based on accounting or management sensitivities and credit (counterparty) risks.

### **9.10.1** Liquidity position and management of liquidity risks

#### 9.10.1.1 LIQUIDITY POSITION

At December 31, 2007, taking into account the cash and liquid assets totaling €11,718 million and unused credit lines totaling €10,066 million, the

Group's liquidity position was approximately €21.8 billion. The Group also has access to financial resources through short-term issues and bond issue programs, and bank credit lines.

In 2008, the Group's scheduled debt repayments will total €10,513 million, including €1,362 million of bonds.

In December 2007, none of EDF, EDF Energy, EnBW, EDF Trading, or Edison were in default on any borrowing.

#### 9.10.1.2 MANAGEMENT OF LIQUIDITY RISKS

The measures taken by the Group for its liquidity risk management are designed to smooth the maturities of debt lines. The average maturity of long-term debt is approximately five and a half years, lower than in 2006. The average maturity of EDF's debt was approximately four and a half years, lower than in 2006 as there were no debt issues in 2007.

At December 31, 2007, the maturities of gross long-term and short-term debt, before hedging as defined by IAS 39 and based on current interest and exchange rates, were as follows:

(in millions of euros)	Bonds	Loans from financial institutions	Other financial liabilities	Loans related to finance-leased assets	Accrued interest	Total
Less than one year	1,362	1,176	7,511	30	434	10,513
From one to five years	5,881	1,856	277	142	5	8,161
More than five years	7,700	1,136	350	65	5	9,256
TOTAL	14,943	4,168	8,138	237	444	27,930

Against the major liquidity tensions on the financial markets in the second half-year of 2007, EDF was able to meet its financing needs by conservative liquidity management, using its liquid assets and accessing short-term markets through its European and American commercial paper programs.

Four specific levers are used to manage the Group's liquidity risk:

- The Group's cash pooling system, which centralizes cash management for operationally controlled subsidiaries (entities other than Edison, EnBW and Dalkia, principally) with the exception of *RTE-EDF Transport*. The subsidiaries' cash balances are made available to EDF in return for interest, so as to optimize the Group's cash management and provide subsidiaries with a system that guarantees them market-equivalent financial terms;
- Centralization of financing for controlled subsidiaries at the level of the Group's cash management department. EDF Energy and EDF Trading now have credit lines with EDF. In partnership with the bank Natixis Belgique Investissements, EDF has also set up an investment subsidiary, EDF Investissements Groupe (EDF IG), for the long-term financing of subsidiaries and investment in top-quality financial assets. EDF IG is proportionally consolidated by the group on a 66.67% basis;

• Active management and diversification of financing sources used by the Group: the Group has access to short-term resources on various markets through programs for French commercial paper (billets de trésorerie), US commercial paper and Euro market commercial paper. For EDF, the ceilings for these programs are €3.8 billion for its French commercial paper, US \$3 billion for its US commercial paper and US \$1.5 billion for its Euro market commercial paper. EnBW, RTE-EDF Transport and EDF Energy also have short-term programs for maximum amounts of €2 billion, €1 billion and £1 billion respectively.

EDF also has regular access to the bond market through an annually updated EMTN (Euro Medium Term Note) program, registered with the market authorities in Luxembourg, France and Japan. The current ceiling for this program is €11 billion. EnBW and EDF Energy also have their own EMTN programs, with ceilings of €5 billion and €4 billion respectively. *RTE-EDF Transport* intends to renew its EMTN program, with a ceiling of €6 billion, which matured at August 31, 2007, for the first half of 2008.



The table below sets forth the Group's borrowings in amounts of over €750 million at December 31, 2007:

Type of borrowing (in millions of currency units)	Entity	Issue date	Maturity	Amount	Currency	Rate
Bonds	EDF	1993	2008	987	EUR	6.3
Bonds	EDF	1998	2009	1,996	EUR	5.0
EuroMTN	EDF	2000	2010	1,000	EUR	5.8
EuroMTN	EDF	2001	2016	1,100	EUR	5.5
Bonds	EDF	2001	2031	650	GBP	5.9
EuroMTN	EDF	2003	2033	850	EUR	5.6
Bonds	RTE	2006	2016	1,000	EUR	4.1
EuroMTN	Edison	2007	2011	900	EUR	Euribor 3M
Bonds	EnBW	2002	2012	1,000	EUR	5.9

The entities with syndicated loan facilities are EDF, EDF Energy, EnBW, Edison and *RTE-EDF Transport*:

- EDF has a syndicated loan facility for €6 billion, valid until 2012. This amount comprises a €2 billion swingline available for same-day drawing. This facility is not conditional on maintenance of ratios or a given credit rating, and no drawings had been made on this facility at December 31, 2007;
- EDF Energy's syndicated loan facility amounts to £250 million, valid until 2008. This facility is conditional on respect of certain covenants (the company must continue to be controlled by EDF), and no drawings had been made on it at December 31, 2007;
- EnBW's syndicated loan facility comprises two tranches: one (tranche A) of €1 billion with a one-year term, with an option for renewal and drawing facility upon expiry at the lender's initiative, and another (tranche B)

of €58 million valid until 2010 and €1,442 million valid until 2012. No drawings had been made on this credit facility at December 31, 2007:

- Edison's syndicated loan for €1.5 billion is valid until 2013. This credit facility was available at December 31, 2007 and no drawings had been made on it at that date;
- RTE-EDF Transport's syndicated loan consists of one tranche of €1 billion valid until 2013, comprising a €300 million swingline. No drawings had been made on this credit facility at December 31, 2007.

#### 9.10.2 Credit ratings

The financial ratings agencies Standard & Poor's, Moody's and Fitch IBCA have attributed the following long-term and short-term ratings to the EDF Group <sup>68</sup>:

Company	Agency	Long-term rating	Short-term rating
	Standard & Poor's	AA- stable outlook	A-1+
EDF	Moody's	Aa1, stable outlook	P-1
	Fitch IBCA	AA- stable outlook	F1+
RTE EDF Transport	Standard & Poor's	AA- stable outlook	A-1+
EDF Trading	Moody's	A3 stable outlook	N/A
	Standard & Poor's	A stable outlook	A-1
EDF Energy	Moody's	A3 stable outlook	P-2
	Fitch IBCA	A- stable outlook	F2
	Standard & Poor's	BBB+ positive outlook	A-2
Edison SpA	Moody's	Baa2 stable outlook	N/A
	Fitch	BBB+ stable outlook	F2
EnBW	Standard & Poor's	A- stable outlook	A-2
CIIDVV	Moody's	A2 stable outlook	P-1

### 9.10.3 Management of foreign exchange rate risk

Due to the diversification of its activities and geographical locations, the Group is exposed to the risk of exchange rate fluctuations, which may have an impact on the translation differences affecting balance sheet items, Group financial expenses, equity and net income.

In general, the operating cash flows of EDF and its subsidiaries are in the relevant local currencies, with the exception of flows related to fuel purchases which are primarily in US dollars, and certain flows related to purchases of equipment, although these concern lower amounts. EDF Energy hedges all positions exposed to foreign exchange risk on cash flows.

To limit exposure to foreign exchange risks, the Group has introduced the following management principles.

To the extent possible given the local financial markets' capacities, each entity finances its activities in its own accounting currency. When financing is contracted in other currencies, derivatives may be used to limit foreign exchange risks.

The foreign exchange risk on international assets in the consolidated balance sheet is managed either by matching with liabilities for acquisitions in the same currency, or by market hedging. The Group thus uses derivative financial instruments to manage its foreign exchange exposure on these assets. These financial instruments are intended to hedge only firm or highly probable commitments and do not correspond to speculative objectives. If no hedging instruments are available, or if hedging costs are prohibitive, the risk on open foreign exchange positions is monitored by sensitivity calculations.

After taking into account the financing and foreign exchange risk hedging policy, the Group's gross debt at December 31, 2007 breaks down as follows by currency after hedging as defined by IFRS: 57% in euros, 33% in pounds sterling and 4% in US dollars. The balance of 7% includes the Swiss franc, the Hungarian forint, the Polish zloty and the Brazilian real.

#### 2007 gross debt structure, by currency, before and after hedging

12.31.2007 (in millions of euros)	Initial debt structure	Impact of hedging instruments (1)	Debt structure after hedges	% of debt
EUR	19,774	(3,953)	15,821	57
USD	2,748	(1,766)	982	4
GBP	3,987	5,102	9,089	33
Other currencies	1,421	617	2,038	7
TOTAL DEBT	27,930		27,930	100

<sup>(1)</sup> Hedges of liabilities and net assets of foreign subsidiaries, and USD/GBP swaps designated as economic hedges.

The table below presents the impact of an unfavorable variation in exchange rates on the group's gross debt at December 31, 2007. Sensitivity to foreign exchange risks remains stable compared to 2006.

#### Sensitivity of the Group's gross debt to foreign exchange rate risks

12.31.2007	Debt after hedging instruments converted	Impact of a 10% unfavorable variation	Debt after a 10% unfavorable variation	Impact on equity
(in millions of euros)	into euros	in exchange rates	in exchange rates	
EUR	15,821	-	15,821	-
USD	982	98	1,080	-
GBP	9,089	909	9,998	89
Other currencies	2,038	204	2,242	24
TOTAL	27,930	1,211	29,141	113



The table below sets forth the foreign exchange position relating to net non-operating investments in foreign currency of the Group's principal subsidiaries at December 31, 2007.

#### Net asset position

12.31.2007 (in millions of currency units)	Assets	Bonds	Derivatives	Net position after hedging (assets)
USD	635	0	230	405
CHF (Switzerland)	1,182	400	507	275
HUF (Hungary)	74,861	0	57,787	17,075
PLN (Poland)	1,581	0	1,213	368
GBP (United Kingdom)	3,351	654	1,986	711
BRL (Brazil)	609	0	0	609
SKK (Slovakia)	7,948	0	0	7,948
CNY (China)	676	0	0	676

The assets in the above table are the net assets of the Group's foreign subsidiaries in currency units, adjusted for changes in the fair value of cash flow hedges and available-for-sale financial assets recorded in equity, and changes in the fair value of financial instruments recorded in income.

The table below sets forth the risk of foreign exchange loss in equity on the overall net position relating to the net non-operating investments in foreign currencies of the Group's principal subsidiaries at December 31, 2007, assuming unfavorable, uniform exchange rate variations of 10% against the euro. Net positions are converted at the closing rate and impacts are reported in absolute value.

At December 31, 2007, net positions in USD are higher than in 2006 due to EDF's expansion in nuclear activities in the United States. This increase is partially offset by the sale of activities in Mexico. The peso risk became irrelevant in 2007 following the total sale of Edenor in Argentina.

#### Sensitivity of net assets to exchange rate risks

12.31.2007	Net position in currency	Net position after management,	Impact of a 10% variation
(in millions of euros)		converted into euros	in exchange rates
USD	405	275	28
CHF (Switzerland)	275	166	17
HUF (Hungary)	17,075	67	7
PLN (Poland)	368	102	10
GBP (United Kingdom)	711	970	97
BRL (Brazil)	609	235	23
SKK (Slovakia)	7,948	237	24
CNY (China)	676	64	6

12.31.2006 (in millions of euros)	Net position in currency	Net position after management, converted into euros	Impact of a 10% variation in exchange rates
USD	113	86	9
CHF (Switzerland)	253	158	16
HUF (Hungary)	18,396	73	7
PLN (Poland)	142	37	4
GBP (United Kingdom)	620	923	92
BRL (Brazil)	448	160	16
ARS (Argentina)	6	1	0.1
SKK (Slovakia)	7,489	217	22
CNY (China)	671	65	7

The table below shows a breakdown of available-for-sale securities (equities and bonds) and loans/receivables in foreign currencies. At December 31, 2007, loans in USD were significantly lower than in 2006. These exposures concern EDF only.

#### Sensitivity to exchange rates of available-for-sale securities and loans/receivables in foreign currencies

12.31.2007	Foreign currency value	Euro value	Impact of a 10% variation in exchange	Value after a 10% variation
(in millions)			rates	in exchange rates
Available-for-sale securities in foreign currenc	ies (impact on equity)	:		
USD	505	343	34	309
Total	-	343	34	309
Loans/receivables in foreign currencies (impac	t on income statemer	nt):		
USD	39	26	3	23
GBP	306	417	42	375
TOTAL		443	45	398

Cash investments consist of daily investments and break down as follows:

#### Sensitivity to exchange rates of cash investments in foreign currencies

12.31.2007 (in millions)	Foreign currency value	Euro value	Impact of a 10% variation in exchange rates	Value after a 10% variation in exchange rates
Cash securities in foreign currencies (impact o	n income statement):			_
USD	135	92	9	83
HUF	914	4	NS	4
CHF	27	16	2	14
GBP	42	58	6	52
TOTAL		170	17	153

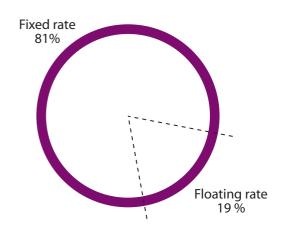
#### 9.10.4 Management of interest rate risk

The Group's exposure to interest rate fluctuations covers two types of risk: a risk of change in the value of fixed-rate financial assets and liabilities, and a risk of change in the cash flows related to floating-rate financial assets and liabilities.

To limit exposure to interest rate risk, the Group (apart from entities it does not control operationally, notably Edison and EnBW) fixes principles as part of its general risk management policy, designed to limit the risk of change in the value of assets invested or possible increases in financial expenses.

EDF therefore uses dynamic allocation between fixed and floating rates according to expected market fluctuations in interest rates. This allocation may involve the use of interest rate derivatives for hedging purposes.

The Group's debt after hedging instruments at December 31, 2007 was structured as follows: 81% of debt bore interest at fixed rates and 19% at floating rates.



A 1% uniform rise in interest rates would generate a  $\in$ 50 million increase in financial expenses at December 31, 2007, based on gross floating-rate debt after hedging under IFRS.

The average coupon on Group debt (weighted interest rate on outstanding amounts) was 5.2% in 2007.



The table below sets forth the structure of Group debt and the impact of a 1% variation in interest rates at December 31, 2007 and 2006. The impact of interest rate fluctuations remains stable.

#### Debt structure and sensitivity to interest rates

12.31.2007 (in millions of euros)	Initial debt structure	Impact of hedging instruments	Debt structure after hedges	Impact of a 1% variation in interest rates	Impact on net income
Fixed rate	21,511	1,042	22,553	225	-
Floating rate	6,419	(1,042)	5,377	54 (1)	54
TOTAL BORROWINGS	27,930	-	27,930	279	-

<sup>(1)</sup> Impact on net income

Interest rate variations on fixed-rate debt have no accounting impact.

The table below presents the interest rate risk on floating-rate bonds and negotiable debt securities at EDF, and their sensitivity in net income. As fixed-rate negotiable debt securities and bonds are mainly held as part of the dedicated asset portfolio, a detailed sensitivity analysis is provided in section 9.10.6.

#### Sensitivity of floating-rate securities to exchange rate risks

12.31.2007 (in millions)	Foreign currency value	Euro value	Impact of a 1% variation in interest rates	Value after a 1% variation in interest rates
Floating-rate bonds and negoti	iable debt securities			
EUR	1,562	1,562	15.6	1,546.4
TOTAL	1,562	1,562	15.6	1,546.4

#### 9.10.5 Management of equity risks

The equity risk lies in the portfolio to cover nuclear obligations (see section 9.10.6 on the "Management of financial risk on EDF's dedicated asset portfolio") and to a smaller degree in long-term investments for EDF's cash management.

At December 31, 2007, equity-linked investments included in long-term cash management investments by EDF totaled €793 million (6.8% of total liquidities), with estimated volatility of 3.99% (annualized volatility of monthly returns observed over three years or over the longest period available). Applying this volatility to the value of equity assets at the same date, EDF estimates the annual volatility of the equities portion of cash investments at €32 million.

The liquidity of assets was unaffected by the financial crisis.

### 9.10.6 Management of financial risk on EDF's dedicated asset portfolio

The dedicated assets have been built up progressively by EDF since 1999 to cover future dismantling expenses for the nuclear plants currently in operation, and the long-term storage of medium-level and high-level waste. Using a long-term management strategy, they are invested in equities and bonds in accordance with the allocation defined in 1999 and revised at the end of 2002 and 2005, pursuant to the governance principles for dedicated assets.

These dedicated asset portfolio is managed under the supervision of the Board of Directors and its Committees (Nuclear Commitments Monitoring Committee, Audit Committee).

The **Nuclear Commitments Monitoring Committee** (CSEN) is a specialized committee set up by EDF's Board of Directors when it updated its internal rules on January 25, 2007, in anticipation of the provisions of article 9 of decree 2007-243 of February 23, 2007. This committee is described in section 16.5.2 of this *Document de Référence*.

A **Nuclear Commitment Financial Expertise Committee** (CEFEN) exists to assist the company and its governance bodies on questions of association of assets and liabilities and asset management. The members of this committee are independent of EDF. They are selected for their skills and diversity of experience, particularly in the fields of asset/liability management, economic and financial research, and asset management.

**The pace of portfolio development** for dedicated assets was defined in September 2005 by EDF's Board of Directors and validated in April 2006 by the relevant ministry. The aim is to reach the level of the provisions concerned by the end of 2010.

**Cash allocations** to dedicated assets in application of the Board of Directors' decision of September 5, 2005, were as follows:

Year	2007	2006
Allocations made and planned, in millions of euros	2,397	2,700 (*)

<sup>(\*)</sup> The 2006 allocation included a higher amount corresponding to inclusion of decommissioning expenses for permanently shut-down power plants in the scope of dedicated assets.

**Withdrawals** totaling €249 million were made in 2007 (€157.7 million in 2006) to cover EDF's cash needs to the extent of reversals of provisions for disbursements in connection with the related obligations.

The governance principles set forth the decision-making and control structure for management of dedicated assets. The principles governing the asset portfolio's structure, selection of financial managers, and the legal, accounting and tax structure of the funds are also defined.

**Strategic asset allocation** is based on an asset/liability review carried out to define the most appropriate portfolio model for the question of financing nuclear expenses. A benchmark index is also set for performance monitoring and control of the overall portfolio risk. Strategic allocation is regularly reviewed, in principle every three years unless circumstances require otherwise. Currently, assets are allocated 50% to international equities and 50% to bonds.

The portfolio contains two subportfolios, "equities" and "bonds", themselves divided into "secondary asset classes" or "pockets" that correspond to specific markets. A third subportfolio, "cash", is used to prepare and supply the disbursements related to reversals of provisions for plants currently being dismantled.

**Tactical asset management** is organized around four main themes:

- Supervision of exposure between the two classes, "equities" and "bonds":
- Choice of tactual exposure by geographical area;
- Marginal investment in alternative vehicles to those used in the strategic allocation;
- Selection of investment funds, aiming for diversification:
  - By style (growth securities, unlisted securities, high-return securities),
- By capitalization (major stocks, medium and small stocks)
- By investment process (macroeconomic and sector-based approach, selection of securities on a "quantitative" basis, etc)
- By investment vehicle (compliance with maximum investment ratios)

The allocation policy established by the Operational Management Committee was developed on the basis of macro-economic prospects for each market and geographical area, and review of market appreciation in different markets and market segments.

#### Portfolio content and performance

At December 31, 2007, the fair value of the dedicated asset portfolio was €8,604 million (€6,257 million at December 31, 2006).

#### Portfolio content under the classification from Article 4 of decree 2007-243 of February 23, 2007

Categories (in millions of euros)	Dec 31, 2007 Book value in EDF's corporate financial statements	Dec 31, 2007 Realizable value in the EDF consolidated financial statements	Dec 31, 2006 Book value in EDF's corporate financial statements	Dec 31, 2006 Realizable value in the EDF consolidated financial statements
Bonds, receivables and other securities issued or guaranteed by an EU member state or OECD country, etc.	2,666	2,794	1,707	1,829
2. Bonds, negotiable bills, etc issued by private sector entities	769	760	122	113
3. Equities, shares and other securities traded on a recognized market, giving access to the capital of companies whose head office is located in the territory of a EU member state or OECD country	233	470	233	282
4. Shares or units in funds investing in assets referred to in 1 to 3	4,034	4,264	3,524	3,856
5. Shares or units in funds investing principally in assets other than those referred to in 1 to 3	208	314	132	176
6. Real estate shares (shares in unlisted real estate companies)	nil	nil	nil	nil
7. Deposits with BNP Paribas Securities Services	0.057	0.057	0.076	0.076
Other payables and receivables (dividends receivable, management fees, etc)	2	2	1	1
TOTAL DEDICATED ASSETS	7,912	8,604	5,719	6,257



#### Breakdown by sub-portfolio and performance in 2007

At December 31, 2007, EDF's dedicated asset portfolio consisted of three sub-portfolios: the equities sub-portfolio represented 48.5% of the total, the bonds sub-portfolio represented 51.4% and the cash sub-portfolio represented 0.05%.

In 2006, the portfolio consisted of 52.4% of equities, 46.9% of bonds, and 0.7% monetary and equivalent investments.

	Dec 31, 2007 Book value in EDF's corporate financial	Dec 31, 2007 Realizable value in the EDF consolidated		rmance 30, 2007	Performance at Dec 31, 2007	
	statements in millions of euros	financial statements in millions of euro	Portfolio	Benchmark index	Portfolio	Benchmark index
Equities sub-portfolio	3,647	4,176	+ 9.65%	+ 6.59%	+ 3.15%	- 1.66%
Bonds sub-portfolio	4,260	4,423	- 1.30%	- 1.72%	+ 2.19%	+ 1.79%
Cash sub-portfolio	5	5	+ 1.78%	+ 1.90%	+ 3.83%	+ 4.02%
TOTAL DEDICATED PORTFOLIO	7,912	8,604	+ 4.42%	+ 2.42%	+ 3.00%	+ 0.21%

The portfolio stood up well to the effects of the financial crisis of the second half of 2007, including the turbulence on the international equities markets. Over the same period, the decrease in long-term rates was beneficial for government and index-linked bonds, and partly offset the effects of the crisis.

The distribution of the portfolio between reserved funds and other financial instruments is also presented in note 24.3.2.1 to the consolidated financial statements at December 31, 2007.

EDF is exposed to equity risks and interest rate risks through its dedicated asset portfolio.

The market value of the "equities" sub-portfolio in EDF's dedicated asset portfolio was €4,176 million at December 31, 2007. The volatility of the equities sub-portfolio can be estimated on the basis of the volatility of the benchmark index, the MSCI World index, which at December 31, 2007 was 13.27% based on 52 weekly performances. It was 9.44% at December 31, 2006. Applying this volatility to the value of equity assets at the same date, the Group estimates the annual volatility of the equities portion of dedicated assets at €554 million. At December 31, 2007,

the sensitivity of the bond sub-portfolio (€4,423 million) was 4.41%, i.e. a uniform 100 base point rise in interest rates would result in a 4.41% decline in market value. This sensitivity was 3.88% in 2006.

#### 9.10.7 Management of counterparty risk

Counterparty risk is defined as the total loss that the EDF Group would sustain on its business and market transactions if a counterparty defaulted and consequently failed to perform its contractual obligations.

The EDF Group has a group counterparty risk management policy, which applies to all operationally controlled subsidiaries. This policy defines the organization of counterparty risk management and monitoring, and reporting procedures and circuits.

Information is consolidated twice yearly at June 30 and December 31.

Consolidation of the EDF Group's counterparty risk at June 30, 2007 shows that the main counterparties for the Group's business overwhelmingly qualify as "investment grade". The exposure amounts to 85% of total exposure, stable compared to the consolidated risk at June 30, 2006.

#### 9.11 **Provisions**

The following table sets forth provisions (current and non-current) at December 31, 2007 and December 31, 2006:

(in millions of euros)	December 31, 2007	December 31, 2006
Provisions for spent fuel management	11,011	10,512
Provisions for long-term radioactive waste management	6,444	4,869
Provisions for back-end nuclear cycle	17,455	15,381
Provisions for decommissioning	11,933	12,139
Provisions for last cores	1,721	1,685
Provisions for decommissioning and last cores	13,654	13,824
Provisions for post-employment benefits	12,675	12,799
Provisions for other long-term employee benefits	1,088	1,129
Provisions for employee benefits	13,763	13,928
Other provisions	3,862	4,009
TOTAL PROVISIONS	48,734	47,142

For details of the components of provisions, and changes in these provisions, see note 31 to the 2007 consolidated financial statements.

### 9.12 Off balance sheet commitments (commitments given)

#### 9.12.1 Operating, financing and investment commitments given

Operating, financing and investment commitments given by the Group were as follows at December 31, 2007:

	2007					
(in millions of euros)	Total	Maturity within one year	Maturity between one and five years	Maturity after five years		
Operating commitments given	13,949	6,879	6,472	598		
Satisfactory performance, completion and bid guarantees	616	286	297	33		
Commitments related to commercial contracts (1)	3,217	1,359	1,546	312		
Commitments related to orders for operating items and fixed assets	6,434	2,944	3,409	81		
Other operating commitments	3,682	2,290	1,220	172		
Firm irrevocable purchase commitments	44,363	6,827	18,361	19,175		
Operating lease commitments as lessor	2,709	595	1,447	667		
Financing commitments	2,711	245	1,446	1,020		
Security interest on assets	2,102	105	1,308	689		
Guarantees related to borrowings	419	89	93	237		
Other financing commitments	190	51	45	94		
Investment commitments	2,969	486	2,482	1		
Equity investment commitments	2,752	374	2,378	-		
Other investment commitments	217	112	104	1		

<sup>(1)</sup> Excluding commodities and energy.



**Operating commitments,** totaling €13,949 million, comprise satisfactory performance, completion and bid guarantees, commitments related to commercial contracts, commitments related to orders for operating items and fixed assets, and other operating commitments.

Operating contract performance commitments are described in note 11.3.1 of the notes to the consolidated financial statements at December 31, 2007.

Firm irrevocable purchase commitments (electricity, natural gas, other energies and commodities, nuclear fuels) amounted to €44,363 million at December 31, 2007. For further details on these commitments, see note 11.1 of the notes to the consolidated financial statements at December 31, 2007.

Operating lease commitments as lessor amounted to €2,709 million (see note 11.4 of the notes to the 2007 consolidated financial statements).

Financing commitments, totaling €2,711 million, comprised security interests on assets, guarantees related to borrowings and other financing

For details, see note 33.5 of the notes to the consolidated financial statements at December 31, 2007.

Investment commitments include commitments for acquisition of equity investments and other investment commitments amounting to €2,969 million. For details, see note 24.5 of the notes to the consolidated financial statements at December 31, 2007.

#### 9.12.2 Contractual obligations

The following table presents the Group's contractual obligations at December 31, 2007.

_	2007					
(in millions of euros)	Total	Maturity within one year	Maturity between one and five years	Maturity after five year		
Long-term debt (1)	27,930	10,513	8,161	9,256		
Financial lease commitments as lessee (2)	246	20	138	88		
Contractual obligations recognized in the balance sheet	28,176	10,533	8,299	9,344		
Satisfactory performance, completion and bid guarantees	616	286	297	33		
Commitments related to commercial contracts	3,217	1,359	1,546	312		
Commitments related to orders for operating items and fixed assets	6,434	2,944	3,409	81		
Other operating commitments	3,682	2,290	1,220	172		
Contractual obligations related to operations (3)	13,949	6,879	6,472	598		
Firm irrevocable purchase commitments	44,363	6,827	18,361	19,175		
Operating lease commitments as lessee (4)	2,709	595	1,447	667		
Security interest on assets	2,102	105	1,308	689		
Guarantees related to borrowings	419	89	93	237		
Other financing commitments	190	51	45	94		
Contractual obligations related to financing (5)	2,711	245	1,446	1,020		
Equity investment commitments	2,752	374	2,378	-		
Other investment commitments	217	112	104	1		
Contractual obligations related to investments (6)	2,969	486	2,482	1		
Off-balance sheet contractual obligations	66,701	15,032	30,208	21,461		
TOTAL CONTRACTUAL OBLIGATIONS	94,877	25,565	38,507	30,805		

<sup>(1)</sup> See note 33.2 to the 2007 consolidated financial statements (2) See note 22.3 to the 2007 consolidated financial statements

The company is not aware of any significant off-balance sheet commitments at December 31, 2007 other than those reported above.

<sup>(3)</sup> See note 11.3 to the 2007 consolidated financial statements

<sup>(4)</sup> See note 11.4 to the 2007 consolidated financial statements (5) See note 33.5 to the 2007 consolidated financial statements (6) See note 24.5 to the 2007 consolidated financial statements

### 9.13

#### **Subsequent events**

### 9.13.1 Reform of the special electricity and gas sector (IEG) pension system

On January 22, 2008, a decree on the special pension system for electricity and gas sector (IEG) employees was issued in accordance with the French Pension Guideline Document (*Document d'Orientation sur les Retraites*) of October 10, 2007, setting forth the first modifications to the system.

The main provisions of this decree concern:

- Prolongation of the employee contribution period to qualify for a fullrate pension, raised to 40 years in 2012; subsequent changes will be identical to those applied in the standard public-sector pension system;
- Reductions and increases in pension rates. The reduction takes the form
  of a financial penalty applied for employees who have not paid contributions over a sufficient period to qualify for a full-rate pension.
  Conversely, the increase is a pension supplement applicable subject to
  certain conditions for employees who continue to work after the age
  of 60 and have paid contributions for 160 quarters.

The decree comes into force at July 1, 2008 and is due to be supplemented by further measures resulting from the existing regulations, covering matters such as introduction of a minimum pension, family and conjugal benefits, pension bonuses, and the possibility of exemption in certain circumstances from the "15-year clause" (currently, 15 years' employment in the sector is the minimum duration to qualify for an IEG pension). An agreement was signed for the IEG sector on January 29, 2008 as part of this reform, following the principles set forth in the French Pension Guideline Document. This agreement introduces the following main support measures for the changes:

- Concerning employees' salaries: a 4.31% increase in the national minimum wage applicable to active and inactive employees, combined in the case of active employees with elimination of the 2.85% pension contribution compensation bonus, and revision of pay scales including rises in workers' starting salaries;
- Initial measures related to longer working lives, such as the definition of additional seniority scales and changes in the calculation methods for retirement gratuities.

Like the decree, this agreement will be supplemented by sector-specific or company-specific agreements on points still under negotiation, for example the question of how the system will take into consideration the specificities of different businesses.

As not all factors are known at the year-end, the impact of the reform and the above support measures on the Group's 2008 net income and obligations cannot be accurately determined.

#### 9.13.2 EDF bond issue on January 18, 2008

EDF has successfully issued a €1.5 billion bond, placed with French and international institutional investors on January 18, 2008. The issue is part of the growing centralization of the Group's subsidiary financing. It marks a return to the bond markets for EDF, which last issued bonds in 2004. The issue has a ten-year maturity and forms part of the Group's policy to increase the average duration of its debt, which currently stands at six years.

### **Capital resources and cash flows**

**10** 



For information pertaining to capital resources and cash flows, see Section 9 ("Cash flows and net financial debt") of this Document de Référence. For information pertaining to the issuer's financing structure,

see Section 9.10.1 ("Liquidity position and management of liquidity risk") in this Document de Référence.

### Research and Development, Patents and Licenses

11



<b>11.1</b> Key figures	P.169
<b>11.2</b> R&D, an asset for the Group	P.169
<b>11.3</b> Intellectual property policy	P.170

The Research and Development (R&D) Division of the EDF Group has for main assignments to contribute to the improvement of the operational units' performance and to identify and prepare mid and long-term growth relays.

The international and European context confirms the validity of EDF Group's renewed commitment relating to innovation and research:

 progressive depletion of fossil resources (oil, gas), issues of reducing emissions of CO<sub>2</sub> and global warming, environmental and water usage issues,

- worldwide development of research on replacement fuels and new sustainable methods of electricity generation, but also of the energetic efficiency and demand management,
- development of new information and communication technologies in technical systems,
- changes due to the opening to the competition of the energy markets.

### **11.1** Key figures

In 2007, the total amount of EDF research and development expenditures booked in the income statement was €375 million, of which more than €100 million for the protection of the environment: efficient uses of energy, research into renewable energy, the local impact of climate change, other studies seeking to reduce environmental

issues (biodiversity, water quality, reduction of nuisances, etc.).

At the end of 2007, EDF's Research and Development (R&D) Division had approximately 1,950 employees.

### 11.2

#### R&D, an asset for the Group

### Contribute to the improvement of the operational units' performance

In 2007, apprsoximately three-quarters of EDF's R&D activities concerned projects directed by the operational divisions and by the Group's subsidiaries and are consequently meant to address certain specific issues.

Therefore, in the nuclear, hydropower and fossil-fired generation fields, EDF R&D shall, on the one hand, develop its tools and methods to improve the operational performances and safely optimize the lifespan of the means of production, and on the other hand, anticipate the new environmental requirements.

The goals of the research program regarding renewable sources of energy are the identification of technological breakdowns capable of modifying the competitiveness ratio between the various sources of energy, and to contribute to the development of technologies considered more beneficial to the Group, such as solar and marine power.

As for transmission and distribution activities, EDF R&D acts as a support to integrate the new technologies dedicated to the performance of its businesses and to develop technical solutions aiming to increase the lifespan of the materials and maximize the facilities' capacities to transmit energy.

EDF R&D also intervenes to support the Commercial Division to develop the tools and support methods for the commercial relationship, to develop solutions for the control of the demand of energy and energetic effectiveness of the uses for all the customers (residential customers, service sector, industrials) and the offers for the living habitat: integration of renewable sources of energy, "comfort" solutions, etc.

Finally R&D's projects devoted to upstream/downstream optimization aim to create the tools and models which increase the value of the Group's generation assets, to know better the functioning and to anticipate the evolution of markets (electricity, gas, emission allowances, etc.).

### Brighten up the future and prepare the growth relays

With the growing importance of the world energy issues – the end of fossil energies and the climate change impact on industrial activities – EDF R&D's commitment to the preparation of the future and of future growth relays, at the core of the Group's industrial project, was continued in 2007 in line with the actions carried out for several years.

For the period 2007-2009, these mid and long-term activities take the form of twelve "R&D Challenges" for EDF, focused on the following

themes: our planet, our optimization, customers, generation, net-works and the digital stimulation, detailing the most important research issues for the EDF Group and covering all of the Company's businesses.

In 2007, these twelve Challenges will mobilize several hundreds of researchers, many players in the operational Divisions of the Group, as well as French and Foreign partners of EDF R&D.

For the period 2007-2009, the twelve R&D Challenges of EDF are:

#### "OUR PLANET":

- Water: anticipate climate constraints on a shared resource;
- Improve the determination of the environmental impacts of our facilities.

#### "OUR OPTIMIZATION":

- Anticipate the new energy environment;
- Optimize EDF's generation on the market: restructure methods and tools;
- Find new flexibility sources between consumption, generation and storage.

#### "CUSTOMERS":

- Houses and buildings: develop technologies and services aiming to energetic efficiency;
- Industry: develop efficiency of old uses and new uses of electricity.

#### "GENERATION":

- Technically allow the exploitation of nuclear power plants up to 60 years;
- Use new technologies to obtain a higher performance operation;
- Innovate in renewable energies and storage.

#### "NETWORKS":

Prepare the 2015's distribution (use of new information and communication technologies (NTIC) in the operation and management of networks, develop simulation tools to optimize their functioning, and technological innovations to favor the networks' performance).

#### "DIGITAL SIMULATION":

• Simulate to take decisions.

### EDF R&D is an integral player in French, European and world research

To carry out its research and development programs, EDF R&D concludes several partnerships in France, in Europe (in particular, in countries where the Group is present) and worldwide. These partnerships aim to maintain our expertise at the highest level worldwide in certain fields representing the heart of EDF's goals, to complete our internal fields of knowledge, and to create common laboratories with research organisms to gather a significant volume of knowledge around shared programs while sharing costs and risks of the upstream research.

These partnerships contribute to a high-standard performance of EDF's R&D research programs and also allow the development of shared projects, following national and European proposals. EDF also takes part in the partnerships created under the National Research Agency and the seventh European Commission's Framework program; and to an active participation in certain competition fields.

EDF has namely favored connections with the CEA and Areva in the nuclear field, taking the form of a tripartite agreement. In addition, EDF R&D is the first non-US partner of the American Research Institute EPRI (Electric Power Research Institute) for shared research programs, notably concerning the ageing of materials and intelligent networks; this partnership also allows the Group to cooperate with most of the nuclear operators in the world.

In addition, EDF R&D launched two new international institutes at its *Les Renardières* site (France) in 2007:

- The MAL, "Materials Ageing Institute", an international research center on the durability of materials to which TEPCO (an electricity company in the Tokyo region) and EPRI are already participating;
- ECLEER, European research center for energy efficiency in buildings and industry (of which the founding partners alongside EDF R&D were the *Ecole Polytechnique Fédérale de Lausanne* and the *Ecole des Mines de Paris*. This centre is supported by EDISON.

### 11.3 Intellectual property policy

Industrial property plays a major role in protecting the EDF Group's technologies and know-how against competition, as well as in the capitalization of these assets through licensing.

This policy is particularly focused on new technologies, in development or in upstream research stage, which are capable of leading to significant evolutions in the Group's businesses.

#### **Patents**

At the end of 2007, EDF's portfolio included 375 patented inventions protected by 1,020 intellectual property titles in France and abroad.

#### **Trademarks**

"EDF" is a trademark registered in 62 countries. The Group's name is a fundamental part of its image and its assets. Thus, this trademark, the Internet domain names and the EDF logos are monitored constantly, in order to protect them against any fraudulent use which may harm the Group's image. The Group has also registered various other trademarks, in particular those related to the business of its various subsidiaries.

### Information on trends

12



12.1	Performance improvement: "Altitude" a	and
	"Excellence Operationnelle" programs	

P. 171

### **12.2** Development of electricity prices in France in January and February 2008

P. 171

P. 172

**12.3** Effects of the transitory regulated tariff for market adjustment

## 12.1 Performance improvement: "Altitude" and "Excellence Operationnelle" programs

The Group's performance program ("Altitude program") launched at the end of 2004 concentrated on three main areas: progressive stabilization of operating costs in France in 2007/2008, continuation of productivity gains in international activities, and optimization of working capital requirements.

This program aimed at generating an impact of approximately €1 billion on consolidated operating profit before depreciation and amortization (EBITDA) as compared to 2004, for financial year 2007 (before deduction of the costs of EDF's transformation and reorganization to be incurred, in particular, in preparation for the total opening up of the markets from July 1, 2007); and generating an improvement of €1.5 billion in the Group's working capital requirements over the 2005-2007 period.

The impact of the "Altitude" program on the EBITDA for the 3 years 2005, 2006 and 2007 (€1,220 million), was more than 20% higher than the expected target. This performance can be explained by productivity actions over purchases and personnel expenses which compensate in particular an increase in costs mainly related to the evolution of employee compensation. Thereby the actions lead in the framework of the "Altitude" program have permitted to limit the average increase of operating costs to 1.1% in France over the period 2005-2007.

As for the program's effect on the working capital requirement over the same period, EDF beats its target by more than 24% with a contribution of the "Altitude" program of €1,865 million.

An "Excellence Opérationnelle" program will be implemented from 2008. It aims at improving in a continuous way the Group's perfor-

mance in all respects (from a financial, technical and corporate point of view):

- The "Excellence Opérationnelle" program aims not only at pursuing the control over the operating charges, but also at improving the gross margin (for instance by improving power plant avaibility and upstream/downstream optimization)
- It aims at increasing the Ebitda by improving the efficiency of operational process of generation (for instance shutdown of units and maintenance operations), marketing (for instance the processing of customers' demands), distribution (for instance the processing of electricity suppliers' demands and maintenance operations). Specific methodologies for the improvement of the operational processes, experienced in 2007 with promising results, are currently being implemented. They are expected to improve the economic efficiency and the service provided.
- Concerning purchases, methods also experienced in 2007, like pricing, sourcing or productivity partnership, are currently being implemented.

In addition the program aims at speeding up synergies and reinforcing innovation.

It aims, for the period 2008-2010, at a gain of €1 billion on the Group's 2010 EBITDA as compared to the one of 2007. Two thirds of this gain should come from French-based activities and one third from international activities. The cumulative gains expected in 2008 and in 2009 as compared to 2007 EBITDA are respectively of €300 million and €600 million.

## **12.2** Development of electricity prices in France in January and February 2008

Electricity prices of the day for the day after (spot) in the first two months of 2008 have approximately doubled in comparison with the levels recorded in the first two months of 2007: €63.7/MWh baseload in France versus €32.5/MWh in 2007, €57.7/MWh baseload in Germany versus €31.7/MWh in 2007 and €73.4/MWh baseload in the United Kingdom versus €34.5/MWh in 2007. The offer/demand balance being comparable between the two periods, this strong prices increase is explained by:

- Soaring prices of fossil fuels since mid 2007 (coal: +75%, petroleum: +40%);
- Strong prices increase of CO<sub>2</sub> (an average increase of +€18.7/t CO<sub>2</sub> between the first two months of 2007 and those of 2008), linked to the

beginning of the "Kyoto" stage of carbon emission limitation, with more restrictive emission rights allowances;

• The entry into force of the European Directive relating to emissions from large combustion plants which implies a more restrained use of fossil-fired power plants.

Electricity forward prices also strongly increased. The price of the annual base contract France for delivery in 2009 amounted to an average of €63/MWh in January and February 2008, against €50/MWh for the annual base contract "France 2008" listed on the same months in 2007. There was the same trend in all Europe: forward prices amounted, on average in January and February 2008, to €62.2/MWh in Germany

### Information on trends

(increasing by 18% in comparison with the first two months of 2007) and  $\in$ 74/MWh in United Kingdom (+64%).

The soaring prices of coal (+71% between the first two months of 2007 and the same period in 2008), petroleum (+65%), gas (+61%) and carbon emission rights for the stage 2 (+43%) explain this increase of the electricity forward prices, slightly diminished by Dollar's fall in comparison to Euro (-13%).

Between the begining of January and the end of February 2008, electricity forward prices increased of 6% in France, reaching €65.8/MWh at the end of February, 5% in Germany and 6% in England. Electricity forward prices increased due to the strong increase of the fossil fuels prices, in particular of coal (+30%) and natural gas (+12%).

### 12.3

#### Effects of the transitory regulated tariff for market adjustment

According to information EDF Group possesses at the date of this *Document de Référence*, it estimates the cumulated impact of the implementation over two years of the transitory regulated tariff for market adjustment at around €1.7 billion over Group's EBITDA for the period 2006-2009 (see section 6.2.1.2 ("Supply") and 6.5.1.2 ("French legislation")).

This impact includes both:

 an estimate of EDF's contribution to finance the compensation awarded to competitor suppliers over the entire period, which has been evaluated to €718 million and provisionned up to €470 million over fiscal year 2006 (see notes 2.2, 5.1 and 13 of the appendix to the consolidated financial statements for the year ended December 31, 2006), and €248 million over fiscal year 2007 (see notes 5.2 and 13 of the appendix to the consolidated financial statements for the year ended December 31, 2007).

• the negative effects over the Group's sales and EBITDA for the time of implementation of this tariff (2 years).

This estimate remains sensitive to the assumptions considered as relevant and, in particular, those concerning the following parameters: electricity volumes concerned by compensation, the part of the compensation which will be financed by the CSPE, integrated tariff evolutions in 2008, and electricity forward price in 2008 and 2009.

#### Financial outlook

**13** 



The Group's financial objectives for the 2006-2008 period remain in compliance with the announcements made by the EDF Group at the time of its initial public offering (see Chapter 13 of the 2005 *Document de Référence* registered with the *Autorité des marchés financiers* on May 18, 2006), and in particular:

- an average pluriannual increase of the EBITDA between 3 and 6%, the top of this range including an assumption of tariff evolution in France close to the inflation rate; and
- a double-digit average pluriannual increase of the Group share consolidated net income excluding non-recurring items.

Moreover, at the time of its initial public offering, the Group fixed itself a target dividend distribution rate of 50% of net income, excluding non-recurring items.

With these targets in view, the EDF Group has kept the commitments relating to "Cession d'Actifs" and "Altitude" programs completed in 2007:

- "Cession d'Actifs", with an impact of approximately €5.7 billion on the net consolidated financial indebtedness at the end of 2007, which exceeds the 5 billion target;
- "Altitude" (see section 12.1 "Performance improvement: Altitude and Excellence Opérationnelle programs").

2008 should be a year of strong investments in the backdrop of increasing expansion of operational costs (increase of raw materials, energy and fitting costs, impact of personal charges increase linked to the accompanying of the retirement plan reform). 2008 will see the pursuit of the investment program which should reach more than €10 billion.

In addition, after the success of its first performance program "Altitude", the Group starts the plan "Excellence Opérationnelle", the aim of which

is to improve in a permanent way the EDF Group's performance in all respects. The Group aims, through this plan, which will be gradually implemented between 2008 and 2010, a gain target on Group's 2010 EBITDA of €1 billion compared to 2007 EBITDA (see Section 12.1 "Performance Improvement: "Altitude" and "Excellence Opérationnelle" programs").

The EBITDA could not progress of more than 3% in 2008, due to the effects of the increase, in 2008, of certain operational charges. The Group share consolidated net income excluding non-recurring items could not progress in 2008 in comparison with 2007, due to the EBITDA's development and the effects of the investments program acceleration.

After 2008, the trend of an EBITDA annual average increase of 3 to 6% should continue.

The dividend per share paid for the financial year 2008 will be at least equal to the one paid for the financial year 2007.

The result-related objectives are expressed as organic growth. They are established according to constant accounting principles and without taking into account the volatility caused by the application of IAS standards 32/39 over the period.

These objectives are likely to change or to be modified owing to uncertainties related in particular to the economic, financial, competitive, regulatory and climatic environment. In addition, the materialization of certain risks described in Chapter 4 ("Risk factors") of the present *Document de Référence* would have an impact on the Group's activities and its ability to achieve its objectives. The achievement of the objectives, moreover, relies on the successful implementation of the strategy presented in section 6.1 of the present *Document de Référence*. EDF therefore makes no undertaking or guarantee concerning the achievement of those objectives mentioned in the present chapter.

14

# Administrative, management, and supervisory bodies and senior management



**14.1** Board of Directors P. 174

**14.2** General management

P. 180

**14.3** Absence of family ties, convictions and conflicts of interest of EDF Directors and Executive Officers

P. 183

### 14.1

#### **Board of Directors**

Since November 20, 2004, EDF has been a French société anonyme with a Board of Directors.

#### 14.1.1 Composition of the Board of Directors

The Company is managed by a Board of Directors consisting of 18 members in accordance with article 6 of the French Law n° 83-675 of July 26, 1983 relating to the democratization of the public sector.

Until the Shareholders' Meeting of February 14, 2006, the Board of Directors included 18 members: six representatives of the French State, appointed by decree, six persons chosen for their special skills and six representatives of the employees elected by them.

As of the Shareholders' Meeting of February 14, 2006, in accordance with the aforementioned law and the provisions of the amended decree-Law of October 30, 1935, the French State holding less than 90% of the share capital of EDF, the Board of Directors will continue to be comprised of 18 members, one third of whom are representatives of the employees, and two thirds are persons appointed by the Shareholders' Meeting upon the proposal of the Board of Directors, subject to the representatives of the French State appointed by decree. The French State having appointed six representatives by decree, the Shareholders' Meeting of February 14, 2006 has thus appointed six directors: Mr. Pierre Gadonneix, Mr. Frank E. Dangeard, Mr. Daniel Foundoulis, Mr. Claude Moreau, Mr. Henri Proglio and Mr. Louis Schweitzer.

The duration of the mandate of members of the Board of Directors is five years. They remain in office until the first meeting of the renewed Board, in accordance with law. Therefore, the mandates of the above-mentioned members of the Board of Directors will end on November 22, 2009. In case of a vacancy for any reason whatsoever of the seat of a member of the Board of Directors, his/her replacement will only hold office for the remaining duration of the term until the renewal of the full Board of Directors.

The Chairman of the French State's Economic and Financial General Control Mission as well as the Secretary of the Works Council also attend the meetings of the Board of Directors with no right to vote.

Article 13-I of the by-laws ("statuts") of EDF provides that the Board of Directors may include, at most, two members of the French Parliament or holders of a local electoral mandate selected for their knowledge of regional, departmental or local aspects of energy issues.

The number of directors of more than 70 years of age may not exceed one-third of the directors in office.

As a result of his appointment as President of the Supervisory Board of *Le Monde*, Mr. Louis Schweitzer will have to resign from his office as Director appointed by the Shareholder's Meeting. Consequently the Board of Directors of EDF, during its April 3, 2008 meeting, decided to propose to the Shareholders's Meeting of May 20, 2008, a resolution to appoint Mr. Bruno LAFONT, Lafarge's Chief Executive Officer, as Director for the period until the renewal of the entire Board, i.e until November 22, 2009 included.

#### 14.1.2 Personal information on members of the Board

#### COMPOSITION OF THE BOARD OF DIRECTORS AS OF THE DATE OF THE PRESENT DOCUMENT DE RÉFÉRENCE

As of the date of the present Document de Référence, the directors of the Company were as follows:

First name, family name, date of birth and primary responsibility in the company	Duration of the mandate	Primary responsibility outside the company
DIRECTORS APPOINTED BY THE GENERAL S	HAREHOLDERS' MEETING	
Pierre Gadonneix Born on January 10, 1943 Chairman and Chief Executive Officer	1st appointment (EPIC): Decree of September 8, 2004.	Chairman of the Board of Directors of Electra Association and of Transalpina di Energia. Director of Edison.
	Appointment as Chairman of the Board of Directors: Decree of September 15, 2004.	Chairman of the World Energy Council
	1st appointment (EDF S.A.): Appointment as Director: Decree of November 20, 2004. Appointment as Chairman of the Board of Directors: Decree of November 24, 2004	Chairman of the World Energy Council Member of the Board of Directors of the National Foundation of Political Science, the Atomic Energy Committee, the Advisory Council of the Banque de France and the National Committee for Vital Importance Lines of Business (Comité National des secteurs d'activité d'importance vitale (CNSAIV)).
	Last appointment (EDF S.A.): Appointment as Director: General Meeting of February 14, 2006. Appointment as Chairman of the Board of Directors: Decree of February 15, 2006.	President of the Group'action CO <sub>2</sub> Association. Member of the Economic and Social Council.
Frank E. Dangeard Born on February 25, 1958	1st appointment (EDF S.A.): Decree of November 20, 2004. Last appointment (EDF S.A.): General Meeting of February 14, 2006.	Chairman and Chief Executive Officer of Thomson until April 9, 2008. Director of Calyon and Symantec.
Daniel Foundoulis Born on April 13, 1939	1st appointment (EPIC): Decree of July 9, 1999. Appointment to the Board of Directors of EDF S.A.: Decree of November 20, 2004. Last appointment (EDF S.A.): General Meeting of February 14, 2006.	Member of the National Consumers Council (CNC) – Member of the European Consumer Consultative Group in Brussels, representing France.  Vice-chairman of the National Council of the Secular Family Associations.
Claude Moreau Born on January 22, 1931	1 <sup>st</sup> appointment (EDF S.A.): Decree of November 20, 2004. Last appointment (EDF S.A.): General Meeting of February 14, 2006.	Chairman of the Interministerial Commission "Clean and Energy Efficient Vehicles" from 2004 to 2007 (Commission Interministérielle "Véhicules Propres et Economes en Energies", or "CIVEPE"). Director of the competitive cluster mobility and advanced transport since 2006 (Pôle de compétitivité Mobilité et Transport Avancé (MTA)' Manager of SCI La Maison de l'Industrie.

## Administrative, management, and supervisory bodies and senior management



First name, family name, date of birth and primary responsibility in the company	Duration of the mandate	Primary responsibility outside the company	
DIRECTORS APPOINTED BY THE GENERAL SHAREHOLDERS' MEETING			
Henri Proglio Born on June 29, 1949	1st appointment (EPIC): Decree of September 8, 2004. Appointment to the Board of Directors of EDF S.A.: Decree of November 20, 2004. Last appointment (EDF S.A.): General Meeting of February 14, 2006.	Within the group Veolia Environnement: Chairman and Chief executive officer of Veolia Environnement. Chairman of the Supervisory Board (Conseil de surveillance) of Dalkia France, Chairman of the Board of Directors of Veolia Transport, Veolia Propreté and Veolia Water. Director of Dalkia International, Eaux de Marseille, Sarp Industries, Veolia Environmental Services Australia, Siram, Veolia Transport Australia, Veolia Environmental Services, Veolia Environmental Services, Veolia Environmental Services, Veolia Transport Northern Europe. Member of the Supervisory Board (Conseil de surveillance) of A&B de Dalkia, Manager of Veolia Eau. Outside the Veolia Environment Group: member of the Supervisory Boards of Lagardère and Natixis. Director of Casino Guichard Perrachon and CNF Assurances. Observer in the Supervisory Board of La Caisse Nationale des Caisses d'Epargne.	
<b>Louis Schweitzer</b> Born on July 8, 1942	1st appointment (EPIC): Decree of July 9, 1999. Appointment to the Board of Directors of EDF S.A.: Decree of November 20, 2004. Last appointment (EDF S.A.): General Meeting of February 14, 2006.	Chairman of the Board of Directors of Renault S.A. and Astra Zeneca. President of the Supervisory Boards of Le Monde et Partenaires Associés, Le Monde SA and Société Editrice du Monde Vice-Chairman of Philips' Supervisory Board President of the High authority for the struggle against discrimination and for equality (Haute autorité de lutte contre les discriminations et pour l'égalité or "HALDE"). Director of BNP Paribas, L'Oréal, Veolia Environnement and AB Volvo. Member of the Advisory Council of Allianz and the Banque de France.	
DIRECTORS REPRESENTING THE FRENCH S	TATE		
<b>Pierre-Marie Abadie</b> Born on July 13, 1969	1 <sup>st</sup> appointment: Decree of August 29, 2007.	Director of demand and energy market of the Department of Energy and raw material in the Ministry of Ecology, Energy, Development and territory Planning ("Direction générale de l'éner gie et des matières premières au ministère de l'Ecologie, de l'Energie du développement et de l'Aménagement du territoire")	

First name, family name, date of birth and primary responsibility in the company	Duration of the mandate	Primary responsibility outside the company
DIRECTORS REPRESENTING THE FRENCH S	ГАТЕ	
André Aurengo Born on April 4, 1949	1st appointment (EPIC): Decree of July 9, 1999. Appointment to the Board of Directors of EDF S.A.: Decree of November 20, 2004.	University Professor, Head of the nuclear medicine department at the <i>Pitié Salpétrière</i> Hospital and biophysics professor at the medical Faculty <i>Pierre et Marie Curie</i> .  Member of the Medicine Academy. Chairman of the French Society of Radiation Protection ( <i>Société Française de Radioprotection, or SFRP</i> ) from 2005 to 2007.  Member of the High Council of safety and nuclear information and of High Council for Public Health ( <i>"Conseil Supérieur de la sûreté et de l'information nucléaire", "Haut Conseil de la Santé Publique"</i> )
<b>Bruno Bézard</b> Born on May 19, 1963	1st appointment (EPIC): Decree of August 1, 2002. Appointment to the Board of Directors of EDF S.A.: Decree of November 20, 2004.	General Manager of the French State Holdings Agency at the Ministry of the Economy, Industry and Employment. Member of the Supervisory Board of AREVA, Director of Air France - KLM, France Telecom, La Poste and Thalès.
<b>Gérard Errera</b> Born on October 30, 1943	1 <sup>st</sup> appointment: Decree of December 18, 2007	General Secretary of Ministry of Foreign and European Affairs Member of the Supervisory Board of Areva and member of the Atomic Energy Committee.
<b>Yannick d'Escatha</b> Born on March 18, 1948	1st appointment (EPIC): Decree of September 15, 1995. 2nd appointment (EPIC): From the decree of July 9, 1999 to the decree of February 23, 2000. Appointment to the Board of Directors of EDF S.A.: Decree of November 20, 2004.	Chairman of the National Center for Space Study (CNES). Chairman of the Board of Directors of the Ecole Polytechnique and the Technology University of Troyes Member of the Technologies Academy. Permanent representative of the CNES at the Board of Directors of Arianespace SA and Arianespace Participation. Director of RATP.
Philippe Josse Born on September 23, 1960	1st appointment to the Board of Directors of EDF S.A.: Decree of April 12, 2006.	Director of the national Budget at the French Ministry of the Budget, Public accounts and Public Service. Director of Air France - KLM and SNCF.
DIRECTORS REPRESENTING THE EMPLOYEE	ES .	
<b>Jacky Chorin</b> Born on April 22, 1959	1 <sup>st</sup> appointment: Election of May 6, 2004. Participated for the first time at the Board of Directors' meeting of September 14, 2004.	Legal Advisor. Project leader near the Human Ressources Director of the Production Engineering Departement
Marie-Catherine Daguerre Born on November 15, 1960	1st appointment: Election of May 6, 1999. Participated for the first time at the Board of Directors' meeting of July 12, 1999. Re-elected in the elections of May 6, 2004.	Customer Advisor.
Alexandre Grillat Born on December 8, 1971	1st appointment: Election of May 6, 2004. Participated for the first time to the Board of Directors' meeting of September 4, 2004.	Attaché to the Commercial Executive of Electricity of Strasbourg
Philippe Pesteil Born on September 1, 1957	1st appointment: Election of May 6, 2004. Participated for the first time at the Board of Directors' meeting of September 14, 2004.	Internal auditor to the General Technical Division

### Administrative, management, and supervisory bodies and senior management



First name, family name, date of birth and primary responsibility in the company	Duration of the mandate	Primary responsibility outside the company
DIRECTORS REPRESENTING THE EMPLOYEE	S	
<b>Jean-Paul Rignac</b> Born on May 13, 1962	1st appointment: Election of May 6, 2004. Participated for the first time at the Board of Directors' meeting of November 7, 2007.	Engineer-Researcher in the Research and Development Division
Maxime Villota Born on November 5, 1959	1st appointment: Election of May 6, 2004. Participated for the first time at the Board of Directors' meeting of December 13, 2006.	Purchase policy coordinator at the Tricastin's CNPE mission for finance and industrial partnerships.

## Personal information relating to the Directors as of the date of the present *Document de Référence*

Directors appointed by the General Shareholders' Meeting:

Pierre Gadonneix. Born on January 10, 1943 in New York (United States of America), Mr. Gadonneix holds a Ph.D. in Business Economics from Harvard Business School, and is a graduate of the Ecole Polytechnique (1962), the Ecole Nationale Supérieure du Pétrole et des Moteurs, and in economic sciences. After founding an IT company (SEFI) and selling it in 1972 to a large industrial company, he became Director of the Industrial Development Institute (Institut de Développement Industriel (IDI)). In 1976 he was technical advisor in the cabinet of the Minister of Industry and Research. He was Director of the Metallurgical, Engineering and Electrical Industries within the Ministry of Industry (from 1978 to 1987), and Chief Executive Officer of Gaz de France (from 1978 to 1987) becoming the Chairman of the Board in 1995. Pierre Gadonneix participated in EDF's Board of Directors from 1978 to 1987 as a Government's Assistant Commissioner. He has been a member of the Economic and Social Council since 1994. He was President of the French Council for Energy from 1993 to 1999. He is President of the World Energy Council. Chairman and Chief Executive Officer of EDF since 2004, Pierre Gadonneix is Chairman of the Board of Directors of the Electra Association, Transalpina di Energia and Director of Edison. He is also a member of the Board of Directors of the National Foundation of Political Sciences, of the Advisory Council of the Banque de France, of the Atomic Energy Committee, of the National Committee for Vital Importance Lines of Business (Comité National des secteurs d'activité d'importance vitale (CNSAIV)), and President of the Group'action CO<sub>2</sub> Association. Director of EDF since September 2004.

**Frank E. Dangeard.** Born on February 25, 1958 in Ottawa (Canada), Frank E. Dangeard is a graduate of HEC, the *Institut d'Etudes Politiques de Paris* and Harvard Law School. He was a lawyer in the United States and London from 1986 to 1989, then Managing Director of the Warburg Bank and was appointed the Chairman of the Executive Board of SBC Warburg France in 1995 before joining the Thomson Multimedia group in 1997 as Chief Officer and Vice-Chairman of the Board of Directors as of 1999. From September 2002 to September 2004, he was Senior Executive Vice-President of France Telecom. He has been the Chairman and Chief Executive Officer of Thomson since September 2004 (he is Chief Executive Officer of Thomson until April 9, 2008), and a Director of Calyon and Symantec. Director of EDF since November 2004.

**Daniel Foundoulis.** Born on April 13, 1939 in Paris (France), Daniel Foundoulis was a laboratory technician in the maxillofacial sector and worked in various capacities in hospitals and offices. He created a company called Laboprodem (a dental prosthesis laboratory). He was a

director of the National Consumption Institute (Institut National de la Consommation or "INC") and the European Consumer Association (Association Européenne des Consommateurs (AEC)). and a member of the High Council for Electricity and Gaz in representation of consumers (Conseil Supérieur de l'Electricité et du Gaz or "CSEG"). He is a member of European Consumer Consultative Group in Brussels (Groupe Consultatif Européen des Consommateurs à Bruxelles (ECCG)), representing France and the Vice-Chairman of the National Council of the Secular Family Associations (Secrétaire Général du Conseil National des Associations Familiales Laïques (CNAFAL)). He is also a member of the French National Consumer Council (Conseil National de la Consommation, or "CNC"). Director of EDF since July 1999.

Claude Moreau. Born on January 22, 1931 in Civray (France), Claude Moreau is a graduate of the Ecole Supérieure de Commerce de Poitiers and the Institut Financier de Gestion. He was Vice-Chairman of the Regional Council of Poitou-Charentes from 1986 to 2004, Chairman of the Center-West Analysis and Tests Institute (Institut d'analyses et d'essais du centre-ouest or "IANESCO") from 1990 to 1998 and local deputy of the National Center for the training of public agents (Centre national de formation des personnels territoriaux or 'CNFPT") from 1998 to 2004. He was a Chief Executive Officer of a publishing company where he founded the Scolavox publications, the Training Institute on Education and Environment (Institut de Formation à l'Education à l'Environnement, or "IFREE") and the Research Center on Electric and Hybrid Vehicles (Centre d'études et de recherche sur les véhicules électriques et hybrides or "CEREVEH"). He has been from 2004 to 2007, the Chairman of the Inter-ministry commission for clean and energy sparing vehicles (Commission Interministérielle Véhicules propres et économes en énergie or "CIVEPE"). Manager of the competitive cluster: mobility and advanced transport since 2006 (Pôle de compétitivité Mobilité et Transport Avancé (MTA)". Manager of SCI La Maison de l'Industrie. Director of EDF since November 2004.

Henri Proglio. Born on June 29, 1949 in Antibes (France), Henri Proglio is a graduate of HEC. He joined the Compagnie Générale des Eaux in 1972 and was appointed Chairman and Chief Executive Officer of CGEA in 1990. He was appointed Vice-Chairman of Vivendi Universal and Chairman and Chief Executive Officer of Vivendi Water in 1999 before becoming Chairman of the Executive Board of Veolia Environnement in 2000 and then Chairman and Chief Executive Officer in 2003. Within the Veolia Environment Group, Henri Proglio is Chairman of the Dalkia France's Supervisory Board (*Conseil de surveillance*), Chairman of the Board of Directors of Veolia Transport, Veolia Propreté and Veolia Water, Director of Dalkia International, of the company Eaux de Marseille, Sarp Industries, Veolia Environmental Services Australia, Veolia Transport Australia, Veolia Environmental Services, Siram, Veolia Transport Northern Europe and Veolia Environmental Services North America; member of Dalkia's A&B Supervisory Boards; manager of Veolia Eau. Apart from the

Veolia Environment Group, Henri Proglio is a member of the Supervisory Boards of Lagardère and Natixis; Director of Casino Guichard Perrachon and of CNP Assurances; censor at the Caisse Nationale des Caisses d'Epargne Supervisory Board. Director of EDF since November 2004.

**Louis Schweitzer.** Born on July 8, 1942 in Geneva (Switzerland), Louis Schweitzer is President of the High Authority for the struggle Against Discriminations and For Equality (HALDE). He is also the Chairman of the Board of Directors of Renault after having been its Finance Director, Senior Executive Vice-President and then Chairman and Chief Executive Officer. He has held various positions at the General Division of Public Assistance, the French Treasury, the Budget Division and in ministerial cabinets. Louis Schweitzer is Chairman of the Board of Directors of Astra Zeneca, President of the Supervisory Boards of *Le Monde et Partenaires Associes, Le Monde SA* and *Société Editrice du Monde*, Director of BNP Paribas, L'Oréal, Veolia Environnement and AB Volvo, member of Allianz and *Banque de France* Advisory Councils and Vice-President of Philips' Supervisory Board. Director of EDF since July 1999.

Directors representing the French State:

Pierre-Marie Abadie. Born on July 13, 1969 in Brest (France), Pierre-Marie Abadie is a graduate of the Ecole Polytechnique (1988), and the Ecole Nationale supérieure des mines de Paris (1993) and Mines chief engineer (2000). He has started his career as quality engineer in Peugeot Automobiles production center at Sochaux, then in Prague as engineer to the maintenance division of the company CSA (Air France). He has been chief of Industrial Environment Regional Department, deputy director of the Industry Regional department, Research and Environment department of Lorraine, then deputy of the department chief "Company Financing and Competitivity" before being chief of the department "Housing and Decentralized Auhtorities Financing" at the Treasury Division. Then, he has been consultant for the Industrial Affairs at Ministry of defence cabinet from May 2002 to May 2007. He has been appointed executive of demand and energy market at Energy and raw material Division at Ministry of Ecology, Energy, Development and territory Planning on July 2007. Director of EDF since August 2007, in place of François Jacq.

André Aurengo. Born on April 4, 1949 in Neuilly-sur-Seine (France), André Aurengo is a graduate of the *Ecole Polytechnique*, a former intern of the *Hôpitaux de Paris*, a Professor in medicine and a Doctor of Sciences. He is a member of the French Academy of Medicine. He heads the nuclear medicine department at the hospital Pitié-Salpêtrière, and is a professor in biophysics at the Medical School of Pitié-Salpêtrière. Appointed in 1998, he participated in the Curien project on nuclear transparency. He has been the President of the French Society of Radiation Protection (*Société Française de Radioprotection*, or "SFRP") from 2005 to 2007. He is a member of the High Council of safety and nuclear information and of High Council on Public Health. Director of EDF since July 1999.

**Bruno Bézard.** Born on May 19, 1963 in Chauny (France), Bruno Bézard is a graduate of the *Ecole Polytechnique* and the *Ecole Nationale d'Administration*. French treasury official, he is currently General Manager of the French State Holdings Agency (*Agence des Participations de l'Etat*, or "APE") at the Ministry of Economy, Industry and Employment. He was also a Vice-Director of insurance in the French Treasury Department, Assistant Director in the cabinet of Mr. Christian Sautter at the Ministry of Economy, Finance and Industry, Vice-Chairman of the *Club de Paris* and then advisor for economic and financial affairs in the cabinet of Lionel Jospin. Mr. Bézard was Chief of Holdings and Financing under the authority of the French Treasury Department, since July 2002 at the Ministry of Economy, Finance and Industry, prior to his

appointment at the APE. Bruno Bézard is a member of the Supervisory Board of Areva, Director of Air France-KLM, France Telecom, La Poste and Thalès. Director of EDF since August 2002.

**Gérard Errera.** Born on October 30, 1943 in Brive-La-Gaillarde (France), Gérard Errera is a graduate of the Paris *Institutd'Etudes Politiques* and of the *Ecole Nationale d'Administration*. He has started his career in the Ministry of Foreign Affairs in 1969. He had differents appointments, in particular in Washington, Madrid, Bruxelles (NATO) and recently in London. Gérard Errera is also a specialist of nuclear and multilateral issues. He has been, since 1958 to 1990, executive of international relations in the Atomic Energy Commission and Governor for France in the International Atomic Energy Agency, then executive of Political Affairs and Safety in the Ministry of Foreign Affairs from 1998 to 2002. He has been appointed General Secretary of Foreign and European Affairs Ministry on October 2007 and Ambassador of France in 2008. He is a member of the Supervisory Board of Areva and member of Atomic Energy Committee. Director of EDF since December 2007, in place of Philippe Faure.

Yannick d'Escatha. Born on March 18, 1948 in Paris (France), Yannick d'Escatha is a graduate of the Ecole Polytechnique, an engineer from the Ecole des Mines, professor at the Ecole Polytechnique, the Paris National Mines School ("Ecole des Mines de Paris") and the National School for Advanced Technics ("Ecole Nationale Supérieure de Techniques Avancées"). Specialized researcher in ground, structural and fracture mechanics, in 1978 he was appointed Chief of the supervision of nuclear construction bureau where he was in charge of the technical control of the French State in the French electronuclear program. He was on temporary assignment in 1982 at the company Technicatome, a subsidiary of the CEA, specializing in nuclear engineering and notably in naval propulsion, and where he became Senior Executive Vice-President in 1987. He was appointed as Director of Advanced Technology Division at the CEA in 1990, then General Director in 1995. In 1999, he was appointed as Assistant Director of CEA-Industrie in 1992 and Director in 1995. He was appointed Chairman of CEA-Industrie in 1999 and Deputy Chief Executive Officer of EDF in 2000. He was appointed as Chairman of the Centre National d'Etudes Spatiales ("CNES"). He is a member of the Académie des Technologies, and Chairman of the Board of Directors of the Ecole Polytechnique, and of the *Université de Technologies* of Troyes, permanent representative for CNES at the Board of Directors of Arianespace SA and Arianespace Participation and Director of RATP. Director of EDF since November 2004.

**Philippe Josse.** Born on September 23, 1960 in Saintes (France), Pilippe Josse is a graduate from the *Institut d'Etudes Politiques de Paris* and from the *Ecole Nationale d'Administration*. He started his career as an administrator in the Senate, then continued at the Ministry of the Economy and Finance, where he worked, in particular, as a Deputy Director to the Budget and budgetary Reform Minister, and as a Deputy Director to the Minister of the Economy, Finance and Industry. Philippe Josse was appointed Budget Director at the Ministry of the Budget, Public Accounts and Public Service on March 30, 2006. Philippe Josse is a Director of Air France - KLM and of SNCF. Director of EDF since April 2006.

Directors representing the employees:

**Jacky Chorin.** Born on April 22, 1959 in Caudebec en Caux (France), Jacky Chorin is a graduate of the Institut d'Etudes Politiques de Paris and has a doctorate in law. He began his career at EDF as a legal advisor in the central service of the Equipment Division in 1983. He currently fulfills functions within the Human Resources division of EDF's Generation- Engineering Division. Director of EDF since September 2004, sponsored by CGT-FO.

## Administrative, management, and supervisory bodies and senior management

----}

Marie-Catherine Daguerre. Born on November 15, 1960 in Mont de Marsan (France), Marie-Catherine Daguerre spent the first part of her career in the administrative branch of EDF Gaz de France Distribution in Gironde from 1982 and then worked in customer relations. For two years she was a member of the Regional Economic and Social Council of Aquitaine and was an union representative in her unit, and then in the national division of *Fédération CGT Mines Energie*. Director of EDF since July 1999, sponsored by CGT.

**Alexandre Grillat.** Born on December 8, 1971 in Bethune (France), Alexandre Grillat is a graduate of the *Ecole Supérieure d'Electricité* and has an advanced degree in electrical engineering. He began his career at EDF in 1996 in EDF Gaz de France Distribution and has held various technical, customer relations, sales and strategy positions of the EDF Group. He currently works in the office of the Sales Manager of Electrité de Strasbourg. Director of EDF since September 2004, sponsored by CFE-CGC.

**Philippe Pesteil.** Born on September 1, 1957 in Saint-Merd-de-Lapleau (France), Philippe Pesteil is an engineering graduate of the *Institut National des Sciences Appliquées* (INSA) in Lyon. He joined EDF in 1982 where he has held different engineering positions. He is a member of the internal audit team in the general technical division of EDF in Grenoble. Director of EDF since September 2004, sponsored by CFDT.

**Jean-Paul Rignac.** Born on May 13, 1962 in Rodez (France), Jean-Paul Rignac has a doctorate of the *Institut national polytechnique* of Toulouse in the energy field. He is Engineer-Researcher in the Research and Development Division at the EDF *Renardières* Center since March 1991, and currently works on energy efficiency in the industrial buildings field. After having been for five years Secretary of the EDF Production joint committee Research and Development. Director of EDF since November 2007, in place of Laurence Hoeffling, sponsored by CGT.

**Maxime Villota.** Born on November 25, 1959 in Joeuf (France), Maxime Villota started working at EDF in 1981 at the Dampierre en Burly plant, before joining Tricastin Nuclear Center for the production of electricity in 1987. He was elected to the Local council of the region Provence Alpes Côte d'Azur, is deputy mayor of Bollène, in Vaucluse and is a member of the trade unions *Fédération CGT Mines Energie*. Director of EDF since December 2006, sponsored by CGT.

Annex C of this Document de Référence describes the mandates (excluding EDF and main functions) of the directors as well as those they held during the past 5 years.

## 14.2

#### **General management**

# **14.2.1** Concurrent positions of Chairman and Chief Executive Officer of the Board of Directors

The Chairman of the Board of Directors, who holds the title of Chairman and Chief Executive Officer, is in charge of the management of the Company. He is appointed by decree upon a proposal of the Board of Directors.

Following the General Shareholders' Meeting of February 14, 2006, the Board of Directors suggested that the government would appoint Pierre Gadonneix as Chairman and Chief Executive Officer. That appointment was decided by a decree of February 15, 2006.

## 14.2.2 Duties of the Chairman and Chief Executive Officer

The Chairman and Chief Executive Officer organizes and supervises the work of the Board of Directors, for which he is accountable at the Shareholders' Meeting. He oversees the functioning of the bodies of the Company and, in particular, ensures that the directors are in a position to accomplish their mandates.

Subject to the specific legal provisions governing public sector companies, to the powers that the law expressly attributes to Shareholders' Meetings and to the powers the law specifically assigns to the Board of Directors, and within the scope of the Company's corporate purposes, the Chairman and Chief Executive Officer is entrusted with far-reaching powers to act on behalf of the Company in all circumstances.

Upon a proposal of the Chairman and Chief Executive Officer, the Board of Directors may appoint one or more individuals with the title of Chief Officer(s) to take on the task of assisting the Chairman and

Chief Executive Officer. The maximum number of Chief Officers is set at five. The Board of Directors establishes the duration of the term of office and, where applicable, the limits of the powers of each Chief Officer.

On November 30, 2004, the Board of Directors of EDF appointed Messrs. Daniel Camus, Yann Laroche and Jean-Louis Mathias to the positions of the Chief Officers. They were confirmed in this position at the Shareholders' Meeting of February 14, 2006.

In connection with the expiry of the Chief Officers' mandate on May 20, 2008, EDF's Board of Directors appointed, as proposed by the Chief Executive Officer, Daniel Camus, Dominique Lagarde and Jean-Louis Mathias as Chief Officers, effective following the Shareholders' Meeting to be held on May 20, 2008.

#### 14.2.3 TOP 4 and Executive Committee

The Group's organization addresses two major directions: improving the capacity to work in an integrated group and associate the operational employees to the decision mechanisms.

The TOP 4, which gathers the Chairman and Chief Executive Officer and three Chief Officers, is the main decisional body at the head of the Group. The Executive Committee ("Comex" is the strategic and dialogue body in charge of all subjects related to the Group. It includes all the members of the TOP 4, the operational and functional Chief Officers, the General Secretary and the Chairmen of the main subsidiaries, namely EDF Energy, EnBW and Edison. Its composition reflects the will to handle in a homogeneous way all stakes important to the Group.

On the date of registration of this *Document de Référence*, the management of the Comex was as follows:

Name Position		Date of Appointment	
Pierre Gadonneix	Chairman and Chief Executive Officer	November 30, 2004	
Daniel Camus	Chief Financial Officer	November 30, 2004	
Yann Laroche	Chief Human Resources and Communication Officer	November 30, 2004	
Jean-Louis Mathias	Chief Operating Officer Integration and Deregulated Operations France	November 30, 2004	
Jean-Pierre Benqué	Senior Executive Vice-President Customers	November 30, 2004	
Bernard Dupraz	Senior Executive Vice-President Generation and Engineering Operations France	November 30, 2004	
Dominique Lagarde	Senior Executive Vice-President Strategy and Coordination	April 1, 2006	
Marianne Laigneau	General Secretary and Chief Legal Officer	June 1, 2007	
Bruno Lescoeur	Lescoeur Senior Executive Vice-President International External relations		
Umberto Quadrino	uadrino Chief Executive Officer of Edison		
Vincent de Rivaz	Chief Executive Officer of EDF Energy	November 30, 2004	
Hans-Peter Villis	President of the Executive Board of EnBW	October 1, 2007	
Gérard Wolf	Senior Executive Vice-President, Subsidiaries and International Development	April 1, 2006	

## Personal information relating to the members of the Executive Committee

**Daniel Camus.** Born on April 14, 1952 in Ugny (France), Daniel Camus holds a doctorate in economics, qualified in management science, and is a graduate of the *Institut d'Etudes Politiques de Paris*. He joined EDF at the end of 2002 as a Finance Manager, then as a Chief Financial Officer since December 2004, after 25 years at Hoechst-Aventis in the industrial chemicals and pharmaceutical businesses in Germany, the United States, Canada and France. In his last three positions, he was successively Financial Officer and member of the Executive Board of the Roussel Uclaf S.A., Paris, Hoechst Marion Roussel AG and Aventis Pharma AG, Frankfurt (Germany) and Bridgewater (USA). He managed the financial transformation of these internationally known companies at the time of their successive mergers until Hoechst and Rhône Poulenc merged with Aventis 1999. Daniel Camus is Chairman of the Board of Directors of EDF Energy and EDF International, Director of Edison, Transalpina di Energia and Valeo, and member of the EnBW, Dalkia and Morphosys Supervisory Boards.

Yann Laroche. Born on March 30, 1945 in Dijon (France), Yann Laroche is a graduate of the Ecole Nationale Supérieure de Mécanique et d'Aérotechnique de Poitiers. He joined EDF GDF Services in 1968 where he has held several positions. He was Head of a Regional Generation and Distribution Division in the Ivory Coast from 1973 to 1976. After four years in the audit department, he joined the Distribution Division as EDF regional representative in Nancy in 1988. In 1992, he was appointed as Head of customer services in the Distribution Division and then Chief Executive Officer of EDF GDF Services. He was responsible for the launch of the "service guarantee" in 1994. From 1996 to 2000, he participated in the creation of EDF's first sales and marketing division and notably the establishment of the Customer Division for Residential Customers and Small Businesses. In May 2001, he was appointed to EDF's Executive Committee as Head of the Personnel and Employee Relations Division (DPRS), then as Chief Human Resources and Communication officer since December 2004. Yann Laroche is a director of EDF Energy.

**Jean-Louis Mathias.** Born on August 21, 1947 in Clichy-la-Garenne (France), Jean-Louis Mathias is a graduate of the *Ecole Polytechnique*, the *Ecole Nationale de la Statistique et de l'Administration Economique* 

(ENSAE), the Centre de Perfectionnement aux Affaires and holds a degree in sociology. He joined EDF GDF services in 1973 and has held various positions, notably that of customer service branch manager in Aix-en-Provence and head of the customer service center in Paris. In 1992, he joined the Personnel and Employee Relations Division (division shared between EDF and Gaz de France) and was appointed Director in 1996. In 1998, he became the Marketing Director of Gaz de France before being appointed Director of Negotiations in 2000. Since June 2002, he was Senior Executive Vice-President of Gaz de France. He returned to EDF in September 2004 as advisor to the Chairman and member of the Executive Committee. Since December 2004, he has been a Chief Operating Officer Deregulated Operations France of EDF, in charge of the Group's integration and improvement programs for performance as well as the direction of deregulated activities in France (in particular, generation and supply). Jean-Louis Mathias is member of Dalkia's Supervisory Board. He is also Chairman of the Board of Directors of EDF Trading.

Jean-Pierre Benqué. Jean-Pierre Benqué is an engineering graduate of *Ponts et Chaussées* and was professor in liquid mechanics at the *Ecole Nationale des Ponts et Chaussées* from 1986 to 1996. He joined EDF in 1974 where he held several positions in the National Hydro Laboratory. In 1986, he became manager of the Research and Network Service and then the Technical Electricity Service in 1991. Two years later, he was given the responsibility of the overseas French departments and then became Head of Sales in the Large Customers Division where he negotiated energy and service offers with EDF's international customers. He was appointed Head of the EDF Business Division in February 2002 and Senior Executive Vice-President Customers on December 15, 2004.

**Bernard Dupraz.** Bernard Dupraz is a graduate of the *Ecole Polytechnique*. After beginning his career in the oil industry, then at the Ministry of Industry, he joined EDF in 1986 and held several positions in the Generation Division, notably, Head of the Nuclear Center of Electricity Generation in Cattenom (Moselle), then Operating Vice-President, Head of Operations of a fleet of 58 nuclear power plants from 1994 to 1998. He was appointed Head of Engineering and Services in 1999 and participated in the development of an EPR. First appointed Deputy Chief Officer in 2002, he has been Senior Executive Vice-President "Generation and Engineering" since December 15, 2004.

## Administrative, management, and supervisory bodies and senior management



**Dominique Lagarde.** Senior Executive Vice-President, Strategy and Coordination. He is a graduate from the *Ecole Polytechnique* and the *Ecole Nationale des Ponts et Chaussées*. After starting his career in Total Oil Marine in London and then in the Nuclear safety Authority, he managed the Osiris nuclear reactor in the Nuclear Energy Authority (CEA) from 1997 to 2000. He joined EDF in 2000 in the EDF GDF Services Distribution division where he held various positions. Appointed Executive Vice-President of EDF GDF Services Nanterre in 2001, he became an executive officer of EDF GDF Services Seine et Marne in 2002. At the end of 2003, he was appointed Executive Vice-President for Communication and Public Affairs of the Group. Since September 2004 he has been the director of the office of the Chairman.

Marianne Laigneau. Marianne Laigneau is a graduate from the *Ecole* Normale Supérieure, holder of the aggregation degree in Classics and a postgraduate diploma in French literature and a graduate of the Paris Institut d'Etudes Politiques. She has been appointed General Secretary of the EDF Group from June 1, 2007. She was posted to the Council of State (the French administrative supreme jurisdiction) on graduating from France's top school for senior civil servants (Ecole Nationale d'Administration - ENA). She was subsequently promoted to Master of Requests in 1995 and Councillor of State in May 2007. From 1997 to 2000, she was seconded to the French embassy in Tunis as a foreign affairs political counsellor. After returning to the Council of State in 2000, she joined the Gaz de France group in February 2003 as head of Institutional Affairs and then, in January 2004, as Deputy Head of Information and Public Affairs. Before her appointment as EDF's General Secretary, she had headed EDF's Corporate Services department since January 2005. She is Chairman of the Supervisory Board of RTE since February 2008.

Bruno Lescoeur. Bruno Lescoeur is a graduate of the Ecole Polytechnique, the Ecole Nationale de la Statistique et de l'Administration Economique (ENSAE) and the Institut d'Etudes Politiques de Paris. In 1978, he joined EDF as an economist where he worked on issues related to tariffs from 1982 to 1987. After several positions within EDF and Gaz de France in France as well as abroad, he joined EDF's Financial Department in 1993. Until 1998, he was in charge of accounts, financing, mergers and acquisitions, while simultaneously managing a rapid debt reduction for the Company and its international expansion. He became the Chairman and Chief Executive Officer of the London Electricity Group (now EDF Energy) at the end of 1998 and led its development. From the beginning of 2002 to the end of 2004, he was Head of the Generation and Engineering Division at the time EDF was adapting its fossil-fired facilities and starting its new EPR. He was appointed Senior Executive Vice-President of EDF on December 20, 2004, in charge of International Holdings and Gas within the Executive Committee, and in charge of international external relations since April 2006. He is a Knight of the National Order of Merit.

Umberto Quadrino. A graduate in Economics, Umberto Quadrino is

CEO of Edison. After starting his career in the Turin industrial union, he joined Fiat in 1970 where he occupied various functions as Administration and Control Director and then in charge of subsidiaries. In 1996, he was appointed Deputy Director of New Holland. In 2000, he came back to Fiat where he managed various divisions and in 2001 became the Chairman of Edison. He has been Deputy Director of the Edison Group since 2005.

Vincent de Rivaz. Vincent de Rivaz is a graduate of the Ecole Nationale Supérieure d'Hydraulique de Grenoble. In 1977, he joined EDF's Exterior Engineering Center within the International Affairs Division. From 1985 to 1992, he participated in EDF's development in China within the International Division, of which he became Director of the Far East Division in 1989. From 1992 to 1994, he was the Head of the National Center of Hydro Equipment within the Equipment Division. He was appointed Head of the International Division in 1995 and became Head of Projects in 1996. He joined the Finance Department in 1999 as Deputy Chief Financial Officer and became Head of Financial Strategies and Operations in 2000. He was appointed Chief Executive Officer of the London Electricity Group in early 2002. He led the merger transactions of companies acquired during the first six months of 2002 (Easkin and Seeboard networks) and created in mid-2003 EDF Energy and has since been its Chief Executive Officer. He was appointed to EDF's COMEX in December 2004.

Hans-Peter Villis. Hans-Peter Villis is Chief Executive Officer of EnBW since October 1, 2007. He is a graduate in Economics. He was general manager of Städtische Werke Magdeburg GmbH from 1993 to 1999. He became member of the management board of Gelsenwasser AG in Gelsenkirchen from 2000 to 2002. Between 2003 and 2006, he held key positions at E.ON Westfalen Weser AG, Paderborn: from September 2003 to June 2006 as the CEO and from January to September 2003 as general manager of Elektrizitätswerk Wesertal GmbH, Hameln. Since June 2006, he was the Chief Financial Officer and deputy chairman of the board of directors at E.ON Nordic AB in Sweden.

**Gérard Wolf.** Gérard Wolf is a Senior Executive Vice-President Subsidiaries and International Development. He is an agricultural engineer and a graduate of the INA and the *Institut d'Etudes Politiques de Paris*. He began his career in the prefectorial office and was appointed Principal Private Secretary to the Defense Secretary of State in 1988. From 1996 to 1998, he was a deputy director in charge of emergency and firefight at the Ministry of the Interior. He joined EDF in 1998 as the Principal Private Secretary to the chairman before being appointed Director of the Group's coordination in 2001 and Director of the group's businesses in 2003. Since November 2004, he has been a Director in charge of the Group's development and major projects.

Annex C of this document sets forth the current positions (outside of EDF and excluding the principal positions) held by the EDF Chief Officers as well as the positions they have held over the past 5 years.

On April 8, 2008 EDF annouced the new composition of its Executive Committee, effective on May 20, 2008. Fron this date, the new Executive Committee will de compound of the following members:

Name	Position
Pierre Gadonneix	Chairman and Chief Executive Officer
Daniel Camus	Chief Financial Officer, international activities
Jean-Louis Mathias	Chief operating Officer Integration and
	Deregulated Operations France
Jean-Pierre Benqué	Senior Executive Vice-President North
	American Activities, Customers
Bernard Dupraz	Senior Executive Vice-President Generation
	and Engineering operations
Philippe Huet	Senior Executive Vice-President Strategy and
	Coordination, Sustainable Development and
	R&D
Dominique Lagarde	Chief Human Resources and Communication
	Officer
Marianne Laigneau	General Secretary and Chief legal Officer
Anne Le Lorier	Senior Executive Vice-President, Corporate,
	Finance and Treasury
Bruno Lescoeur	Senior Executive Vice-President, Gas Activities
Umberto Quadrino	Chief Executive officer of Edison
Vincent de Rivaz	Chief Executive Officer of EDF Energy
H-P Villis	President of the Executive Board of EnBW
Gérard Wolf	Senior Executive Vice-President, Subsidiaries
	and International Development and Group
	synergies

## 14.2.4 Environmental, scientific and medical councils

EDF has also established an environmental council, a scientific council and a medical council, open to persons contributing their experience and expertise, in order to integrate these aspects into EDF's major strategic trends.

## 14.3

## **Absence of family ties, convictions and conflicts of interest of EDF Directors and Executive Officers**

## 14.3.1 Absence of family ties among EDF directors and executive officers

To EDF's knowledge, there is no family relationship among EDF directors and executive officers.

## **14.3.2** Absence of convictions for fraud of EDF directors

To EDF's knowledge, none of the EDF directors and executive officers has been:

- convicted of fraud in the past five years;
- declared bankrupt or had their property impounded or liquidated in the past five years;
- the subject of an official accusation and/or penalty delivered by legal or regulatory authorities in the past five years.

In addition, to EDF's knowledge, in the past five years, none of its directors and executive officers has been prevented by a court from becoming a member of an administrative, management or supervisory body of a listed company, or from being involved in the management or direction of the affairs of such a company.

## **14.3.3** Conflict of interest of directors and executive officers

To the Company's knowledge as of the date of the present *Document de* 

*Référence*, there are no potential conflict as regards EDF, between the duties of EDF, directors and executive officers on the one hand and their private interests or other duties, on the other.

If a strict application of the criteria laid down in the report prepared by the Medef and AFEP could lead to some of them being considered as not independent, the Company considers that each of them has the abilities and professional experience necessary to the Company and enjoys complete freedom and independence of judgment.

To the Company's knowledge, there is no agreement entered into by shareholders, customers, suppliers, or others according to which a director has been appointed as either a director or an executive officer.

To the Company's knowledge, no director has agreed to restrict for a fixed period of time his ability to sell his equity holdings in the company, except for the restrictions resulting from the stock exchange ethics charter mentioned in section 16.7 ("Stock exchange ethics charter").

In addition, the directors and executive officers holding their equity interest through a FCPE of EDF Group invested in the share capital of EDF, or who acquired EDF shares from the French State in the legal framework of the privatization regime are subject to the applicable non-transferability and lock-up rules.

## Remuneration and benefits

**15** 



<b>15.1</b> Compensation of Directors and Chief Officers	P. 184
<b>15.2</b> Provisions for pensions, retirement fees, and other advantages	P. 185
<b>15.3</b> Share ownership	P. 186
<b>15.4</b> Stock options and/or purchase of shares	P. 186
<b>15.5</b> Agreements involving members of the Board of Directors	P. 187

## 15.1 Compensation of Directors and Chief Officers

The aggregate gross amount, excluding employer's costs, of compensations, benefits in kind and Directors fees paid in 2007 by EDF and its controlled subsidiaries to directors and executive officers amounted to 6,130,421 euros.

The tables below show the compensation and the various benefits paid to each of the Group's directors and Chief Officers during the 2007 and 2006 financial years by EDF and its controlled subsidiaries. The variable portion is to be added to the gross salary paid (fixed portion).

#### Pierre Gadonneix:

Gross salary paid in 2007	€ 725,000
Variable portion in 2007	€ 325,000
Benefits in kind 2007	€ 5,731
Gross salary paid in 2006	€ 630,204
Variable portion 2006	€ 171,200
Benefits in kind 2006	€ 5,751

#### Daniel Camus:

Gross salary paid in 2007	€ 584,350
Variable portion in 2007(*)	€ 445,167
Gross salary paid in 2006	€ 517,000
Variable portion 2006	€ 455,418

(\*) Of which €180,000 paid in 2007, which were due to a balance of a deferred

The contract of Daniel Camus, in effect from November 14, 2002, contains an additional variable compensation calculated yearly on the basis of the Group's results and paid at the end of each 3-year period, and contractual severance indemnity clauses of 24 months, after a sixmonth notice.

The Board of Directors of EDF decided, during its April 3, 2008 meeting, to propose to the Shareholders' meeting of May 20, 2008, a resolution to adapt this agreement to the provisions of article L. 225-42-1 of the French commercial code, as modified by the Law n°2007-1223 dated August 21, 2007.

The "TEPA Law" of August 21, 2007 reinforces the transparency and governance requirements relating to deferred compensation of directors and officers, and in particular, requires from the corporate bodies to subject the severance payments to performance conditions. This new set of

requirements also applies to the undertakings taken before the publication of the Law which will have to be adapted to it within 18 months of the Law.

Following a favorable opinion of the Appointment and Remuneration Committee, the Board of Directors decided, during its April 3, 2008 meeting, pursuant to *alinéas* 1 and 2 of article L. 225-42-1 of the French commercial code, to subject the dismissal compensation payment amounting to 2 years of wages, provided for the benefit of Mr. Daniel CAMUS, Finance Deputy Chief Executive Officer, in his employment contract entered into with EDF, to performance criterias and to the legal process of control by the corporate bodies.

The Board of Directors fixed the performance criteria as follows:

- to uphold an EDF grading of at least in single A; and
- $\bullet$  to reach at least 80% of the individual goals for at least two of the three last years

The deferred compensation will be fully paid if both criteria are fulfiled, will be paid up to 50% if only one criteria is fulfiled and will not be paid if no criteria is fulfilled.

According to the Law, this undertaking decided by the Board of Directors shall be subject to the ordinary Shareholders' Meeting's approval.

#### Yann Laroche:

Gross salary paid in 2007	€ 428,431
Variable portion in 2007	€ 188,477
Benefits in kind and other bonuses	
provided for in the IEG status in 2007	€ 45,975
Gross salary paid in 2006	€ 349,067
Variable portion 2006	€ 160,736
Benefits in kind and other bonuses	
provided for in the IEG status in 2006	€ 59,140

#### Jean-Louis Mathias:

Gross salary paid in 2007	€ 508,431
Variable portion 2006	€ 202,526
Benefits in kind and other bonuses provided for in the IEG status in 2006	€ 44,760
Gross salary paid in 2006	€ 349,067
Variable portion 2006	€ 165,036
Benefits in kind and other premiums provided for in the IEG status in 2006	€ 41,679

The variable portion mentioned above of the remuneration of directors and Chief Officers corresponds to the fiscal year preceding the year of their payment. This variable portion is settled according to collective performance criteria on the basis of the net benefit part of the Group, free cash flow and EBITDA with respect to three-quarters, and to individual performance criteria (achievements of personal objectives) with respect to the other quarter.

With the exception of the above, Pierre Gadonneix, Jean-Louis Mathias, Daniel Camus and Yann Laroche have not received any starting bonus and will not benefit from a termination grant.

The directors' fees paid to each of the company's directors in 2007 were:

Frank Dangeard	€	30,250
Daniel Foundoulis	€	23,500
Claude Moreau	€	23,500
Henri Proglio	€	28,000
Louis Schweitzer	€	20,000

In accordance with the French Law n° 83-675 of July 26, 1983 relating to the democratization of the public sector, directors representing the French State and those representing the employees do not receive directors' fees.

## **15.2**

## Provisions for pensions, retirement fees, and other advantages

Directors and executive officers do not benefit from any specific retirement system.

## Remuneration and benefits



## 15.3

## **Share ownership**

Pursuant to Article 11 of the French Law n° 83-675 of July 26, 1983 mentioned above, the provisions of the French Commercial Code relating to the number of shares that each director must own are not applicable to the members of the Board of Directors of EDF appointed by decree.

Pursuant to Article 21 of the French Law n° 83-675 of July 26, 1983 mentioned above, the provisions of the French Commercial Code relating to the number of shares that each director must own are not applicable to the members of the Board of Directors of EDF who represent the employees.

Following the Company's initial public offering on the stock exchange, some of EDF's directors and chief officers became shareholders of the Company. At the time of the present *Document de Référence*, the number of EDF shares held by each director and chief officer, as well as their holding method: (directly or through a company mutual fund (FCPE)), were as follows:

#### Shares in the company held by Company Directors and Chief Officer on December 31, 2007

Names	Number of shares
Pierre Gadonneix	
(shares held directly)	1,277
Daniel Camus	
(140 shares held directly and 786 shares held through a FCPE)	926
Marie-Catherine Daguerre	
( shares held through a FCPE)	247
Franck E. Dangeard	
(shares held directly)	50
Daniel Foundoulis	
(shares held directly)	250
Alexandre Grillat	
(shares held through a FCPE)	564
Yann Laroche	
(shares held through a FCPE)	1,785
Jean-Louis Mathias	
(shares held through a FCPE	
(the spouse of Jean-Louis Mathias holds 628 shares through a FCPE too).	847
Claude Moreau	
(shares held directly)	200
Philippe Pesteil	
(shares held through a FCPE)	233
Henri Proglio	
(shares held directly)	51
Louis Schweitzer	
(shares held directly)	100

## 15.4

## Stock options and/or purchase of shares

None.

## **15.5**

#### **Agreements involving members of the Board of Directors**

#### 15.5.1 Information relating to agreements involving members of the Board of Directors

Until November 20, 2004, EDF was an EPIC and the provisions of the French Commercial Code relating to agreements involving members of the Board of Directors were not applicable.

Since the transformation of EDF into a French société anonyme on November 20, 2004, the provisions of Article L. 225-38 of the French Commercial Code relating to such agreements apply to EDF.

## 15.5.2 Statutory auditors' special report on agreements involving members of the Board of Directors for the financial year ended December 31, 2007

This is a free translation into English of a report issued in the French language and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and is construed in accordance with, French Law and professional auditing standards applicable in France.

It should be understood that the agreements reported on are only those provided by the French Commercial Code and that the report does not apply to those related party transactions described in IAS 24 or other equivalent accounting standards.

Electricité de France S.A.

Registered office: 22-30, avenue de Wagram – 75008 Paris

## STATUTORY AUDITORS' REPORT ON REGULATED AGREEMENTS AND COMMITMENTS INVOLVING MEMBERS OF THE BOARD OF DIRECTORS FOR THE FINANCIAL YEAR ENDED DECEMBER 31, 2007

To the shareholders,

In our capacity as statutory auditors of your Company, we hereby present to you our report on the regulated agreements and commitments.

#### AGREEMENTS AND COMMITMENTS ENTERED INTO BY THE COMPANY IN 2007

In accordance with article L.225-40 of the French Commercial Code (*Code de commerce*) we have been advised of agreements and commitments which have been previously authorised by your Board of Directors.

We are not required to ascertain whether any other agreements or commitments exist but to inform you, on the basis of the information provided to us, of the terms and conditions of the agreements and commitments of which we were notified. It is not our role to determine whether they are beneficial or appropriate. It is your responsibility, under the terms of article R.225-31 of the French Commercial Code, to evaluate the benefits arising from these agreements prior to their approval.

We conducted our work in accordance with professional standards applicable in France; those standards require that we perform the procedures deemed necessary so as to verify that the information provided to us is in agreement with the underlying documentation from which it was extracted.

#### • CONTRACTS WITH AREVA GROUP

Your company entered into three different agreements with Areva Group during fiscal year 2007 for the following services:

- construction of the nuclear boiler for the Flamanville 3 EPR nuclear plant;
- maintenance and servicing of boilers as part of the third ten-year inspection of the 900 MW-type nuclear plants in France;
- advance booking of forged parts for EPR reactors constructed abroad.

The total consideration for these agreements is €764 million (€222 million paid in 2007), €116 million (€27 million paid in 2007) and €212 million, including an option for €106 million (€18 million paid in 2007), respectively.

These agreements were authorized by your Board of Directors on January 23, June 14 and August 30, 2007.

Directors concerned: Bruno Bézard and Philippe Faure, members of the Areva Supervisory Board.

## Remuneration and Benefits



#### CONTINUING AGREEMENTS AND COMMITMENTS WHICH WERE ENTERED INTO IN PRIOR YEARS

In addition, pursuant to the French Commercial Code (Code de Commerce), we have been advised that the following agreements and commitments approved in previous years have had continuing effect during the year:

#### • PUBLIC SERVICE CONTRACT

On October 24, 2005, the French State and Electricité de France S.A. signed a *public service contract* whose purpose is to form the framework for Electricité de France S.A.'s public service mission and duties. This contract sets out the commitments undertaken by Electricité de France S.A. over the period 2005-2006-2007 and defines the financial compensation payable for public service obligations, in particular the principles set for the calculation of and increase in electricity sales tariffs.

#### • SALES OF EDF SHARES RESERVED FOR CURRENT AND RETIRED EMPLOYEES OF EDF GROUP ENTITIES

As part of the opening of the share capital of the Company at the end of 2005, and of the preferential offer reserved for current and retired employees of EDF and certain French and foreign subsidiaries, EDF, the French State and BNP Paribas Securities concluded an agreement which describes the modalities relating to payments of shares, attribution of free shares and recovery of shares in case of insolvency.

34,653,721 shares had been attributed to employees as of January 30, 2006 through this agreement, corresponding to the consideration to be received by the French State over the next two years.

Consideration of €86 million was paid to the French State in 2007.

Paris La Défense and Neuilly-sur-Seine, February 19, 2008

The Statutory Auditors

KPMG Audit
Department of KPMG S.A.

**Deloitte & Associés** 

Jean-Luc Decornoy Michel Piette Amadou Raimi Tristan Guerlain

16

# Functioning of the administration and management bodies



<b>16.1</b> Powers of the Board of Directors	P. 189
<b>16.2</b> Board of Directors meetings	P. 189
<b>16.3</b> Board of Directors rules of procedure	P. 190
<b>16.4</b> Evaluation of the Board of Directors	P. 190
<b>16.5</b> Committees of the Board of Directors	P. 190
<b>16.6</b> EDF ethical approach	P. 191
<b>16.7</b> Stock exchange ethics charter	P. 192
16.8 Internal control	P. 192
<b>16.9</b> Compliance with the corporate governance principles in force in France	P. 192

## 16.1 Power

#### **Powers of the Board of Directors**

Pursuant to Article L. 225-35 of the French Commercial Code, the Board of Directors determines the orientation of the activities of the Company and oversees their implementation. Subject to powers expressly attributed by Law to the Shareholders' Meetings and within the limit of the corporate purpose of the Company, the Board may discuss any question relating to the functioning of the Company and acts, through its deliberations, on any such issue.

Moreover, in accordance with Article 7 of the French Law of July 26, 1983 relating to the democratization of the public sector, the Board of Directors deliberates, in particular, on the main strategic, economic, financial and technological trends of the Company and the Group before making

decisions related thereto.

Pursuant to its rules of procedure, the Board of Directors also has specific powers with respect to:

- financial operations;
- operations of external or organic growth or disposal;
- contracts for more than €100 million, including any amendments thereto,
- property transactions;
- operations of the nuclear fuel cycle;
- bond transfer transactions; and
- long-term energy sales and purchases, CO<sub>2</sub> emission credits and quotas.

## 16.2

#### **Board of Directors meetings**

The Board of Directors meets as often as the interest of the company requires, upon notification by the Chairman, in accordance with applicable legislative and statutory provisions.

The rules of procedure provide that all directors participating in the meeting of the Board of Directors by any telecommunication means which allow

their identification and assure their effective participation, in accordance with applicable legal provisions, are deemed present for the purposes of calculating the quorum and the majority.

In 2007, the Directors' attendance rate to the Board of Directors' meetings was 81.8% for 11 Board meetings.

## Functioning of the administration and management bodies



## 16.3

#### **Board of Directors rules of procedure**

The functioning of the Board of Directors is organized in accordance with the rules of procedure, which were amended by the Board of Directors on January 23, 2007.

At each meeting of the Board of Directors, the Chairman and Chief Executive Officer communicates to the Board members the main facts and significant events affecting the Company that have occurred since the date

of the last meeting of the Board of Directors. In order to obtain further information, directors may meet with the senior management of the Company or the Group regarding the subjects on the Board's agenda. They must inform the secretary to the Board of their request.

The rules of procedure also describe the organization, functioning and powers of the Board committees.

## 16.4

#### **Evaluation of the Board of Directors**

In accordance with corporate governance principles (arising from Viénot and Bouton reports or from AFEP-MEDEF's report dated October 2003) and in particular the one which recommends to carry out an evaluation of the Board, the Board's rules provide that the Ethics "delivers each year a report on the evolution of Board's functioning (...) and suggests questions to be discussed".

Within the framework of the recommendations resulting from the Bouton Report, EDF has also decided to give, every three years, to an external firm the making of this evaluation. At the end of a consultation process, the Ethics Committee of October 17, 2007, has thus chosen an external firm to carry out an evaluation of the Board during year 2007. The directors will, in particular, be asked on organization and operation of the Board, its scope of activities and its working method, organization and operation of its committee.

The results will be examined by the Ethics Committee and presented to the Board of Directors at the end of the first quarter 2008.

## 16.5

#### **Committees of the Board of Directors**

In its functions, the Board decided to set up specialized consultative committees within the Board, whose functions are to prepare the case files in advance before they are presented in the whole committee. At the end of 2007, there were: an audit committee, a Nuclear Commitments Monitoring Committee, a strategy committee, an ethics committee and an appointments and remunerations committee. The chairman of the French State general economic and financial control mission is invited to the committees' meetings.

The chairmen of such committees are:

- Audit committee: Mr. Frank E. Dangeard;
- Nuclear commitments monitoring committee (CSEN): Mr. Bruno Bézard;
- Strategy committee: Mr. Henri Proglio;
- Ethics committee: Mr. André Aurengo;
- Appointments and Remunerations committee: Mr. Louis Schweitzer.

#### 16.5.1 Audit Committee

The Audit Committee is comprised of five members, and chaired by Mr. Dangeard, a director appointed by the Shareholders' meeting and external to the EDF Group. The other members of the Committee are Mr. Bézard and Mr. d'Escatha, directors representing the French State, and Mr. Chorin and Mr. Villota, directors appointed by the employees. The Committee assesses and gives its opinion on the company's financial situation, the medium-term plan and the budget, the draft consolidated financial statements, prepared by the financial Division (EDF's annual financial statements and the Group's consolidated financial statements), the risk monitoring policy, the internal audit program. The Committee hears the auditors and the general and financial divisions, the Risks executive and the

Audit executive. The Committee regularly examined the risk management policy, and more precisely reviewed every semester the consolidated risk mapping of the Group, as well as risks control methods, the audit program and the main corrections carried out following previous semester's audit.

In 2007, the Audit Committee has examined the financial and legal aspect of the parenting of the electricity distribution network and differents subjects like the insurances or the EDF Group's long term financing centralization.

The average attendance rate to the Audit Committee reached 96% in 2007 for 5 meetings.

## **16.5.2** Nuclear Commitments Monitoring committee (CSEN)

The Nuclear Commitments Monitoring Committee is composed of six members, including the five members of the Audit Committee and a director with a known expertise in the nuclear field. It is chaired by Mr. Bruno Bézard, a director representing the French State, its other members are Mr. Dangeard, director appointed by the Shareholders' meeting and external to the EDF Group, Mr. Abadie and Mr. d'Escatha, directors representing the French State and Mr. Chorin and Mr. Villota, directors appointed by the employees.

This Committee's mission is to monitor the evolution of nuclear provisions, give its opinion concerning dedicated assets' management, the ratio between assets and liabilities and the strategic allowance, and to examine the compliance of EDF's dedicated asset management with the rules chosen. The average attendance rate to the Nuclear Commitments Monitoring Committee reached 88.9% in 2007 for 3 meetings.

#### 16.5.3 Strategy Committee

The Strategy Committee is comprised of seven members, and chaired by Mr. Proglio, a director appointed by the Shareholders' meeting and external to the Group. The Committee's other members are Mr. Abadie, Mr. Bézard, and Mr. Errera, directors representing the French state, Mrs. Daguerre, Mr. Grillat and Mr. Pesteil, directors appointed by the employees. The Committee gives its opinion concerning the Company's main strategic guidelines. In 2007, it examined the upstream and downstream strategies of the nuclear fuel cycle, the trend of the supply and demand balance in France over the period 2007-2020, the international nuclear development and the updating of the Group's strategic referential.

The Strategy Committee met 4 times in 2007, with an average attendance rate of 64.3%.

#### 16.5.4 Ethics Committee

The Ethics Committee is comprised of six members and chaired by Mr. Aurengo, a director representing the French State and external to the EDF Group. The other members are Mr. Foundoulis and Mr. Moreau, directors appointed by the Shareholders' meeting and external persons to the EDF Group, Mr. Chorin, Mr. Pesteil and Mr. Rignac, directors appointed by the employees. The Committee ensures that ethical considerations are reflected in the work of the Board of Directors and that the management of EDF are taken into consideration. It examines in particular:

- the annual report excluding financial statements (activity and sustainable development reports);
- the activity report of the Ethics advisor;
- the reports of the mediator and the General Inspector for nuclear safety and radiation protection.

Moreover, the Ethics Committee prepares every year a report regarding the evolution of the Board of Directors' functioning and the implementation of its internal rules, and suggests matters to be discussed. This Ethics Committee worked in particular on the updating of Boards' internal rules approved by the Board of Directors on January 23, 2007, continued its work to partnerships with service providers in the nuclear field and on management of nuclear waste. It has also examined the implementation of distributor's ethics code, the communications policy and the new EDF's ethics referential.

The attendance rate in the Ethics Committee in 2007 was of 93.3% for 5 meetings.

## **16.5.5** Appointments and Remunerations Committee

The Appointments and Remunerations Committee, composed of three members is chaired by Mr. Louis Schweitzer, a director appointed by the Shareholders' Meeting and external to the EDF Group. The other members of the Committee are Mr. Dangeard, a director appointed by the Shareholders' Meeting and also external to the EDF Group, and Mr. Bézard, a director representing the French State. The Committee delivers to the Board of Directors proposals concerning the appointment of directors by the Shareholders' Meeting, addresses to the Minister in charge its opinion on the remuneration of the Chairman and Chief Executive Officer, and examines the remuneration of the Chief Officers (DGD).

It also conveys its opinion to the Board of Directors regarding the methods for establishing the remuneration of Company Senior Management (fixed portion and variable portion, method of calculation and indexation), as well as the amount and the allocation methods of the directors' fees. It assures the existence of replacement lists for the members of the Executive Committee.

The attendance rate in the Appointments and Remunerations Committee in 2007 was of 100% for 3 meetings.

## 16.6 EDF ethical approach

EDF's ethical approach, presented for the first time at the meeting of the Board of Directors of March 26, 2003 and coordinated by the Head of Ethics, a person specifically appointed for this purpose, consists of the distribution of and adherence to a Code of Ethics centered on five values: respect for individuals, respect for the environment, performance, solidarity and integrity.

The code details the ethical commitments of the Group with respect to interested parties (principles of collective action) as well as an individual code of conduct (Ethics Guide). These values underlie the social and environmental commitments of the company, particularly the UN Global

Pact, Agenda 21 and the EDF Group Social Responsibility Agreement signed on January 24, 2005. The approach is implemented by management in all parts of the Group.

The Code of Ethics is available on all EDF websites.

A whistleblower procedure was implemented in January 2004, which makes it possible to question the ethics advisor on any question, warning or complaint of an ethical nature. This system is open not only to employees, but also to external partners and customers.

## Functioning of the administration and management bodies

....\$

## 16.7

#### Stock exchange ethics charter

Following the Company's listing on the stock exchange in November 2005, EDF adopted in March 2006 a ethics charter aimed at imposing the respect of the applicable rules and principles as well as the recommendations made by the stock market authorities in the area of risk management related to the holding, disclosure, or possible using of privileged information.

To that purpose, the EDF Group has in particular decided to set up abstention periods (black-out) during which insider persons according to article L465-1 of the Financial and Monetary Code cannot buy, sell or conclude operations on EDF's shares.

Black out periods are short, foreseeable, and significant non-public information about the EDF Group can circulate within the Group during that time. Those periods take place:

- between the first day of each quarter and the day of the press release publication related to the annual or half-yearly financial statements or EDF quarterly sales (included); and/or
- between the day when the person gets to know the inside information and the day when this information is made known to the public.

## 16.8

#### **Internal control**

## 16.8.1 Chairman of the Board of Directors' Report

Pursuant to article L225-37 of the French Commercial Code, the Chairman of EDF's Board of Directors is required to deliver a special report, enclosed to the management report of the Board, regarding the status of the preparation and organization of the work of the Board of Directors, as well as the status of the internal control procedures implemented by the Company.

This report is reproduced in Annex A.

16.8.2 Independent Auditors' report, prepared in accordance with article L 225-235 of the French Commercial Code, on the Report prepared by the Chairman of the Board of EDF, regarding the internal control procedures relating to the preparation and processing of accounting and financial information

This report is reproduced in Annex B.

## 16.9

## Compliance with the corporate governance principles in force in France

Subject to what is described below, EDF adheres to the corporate governance principles applicable to listed companies as described in the October 2003 AFEP/MEDEF report, and in particular to the key corporate governance principles relating to:

- responsibility and loyalty of the directors and managers;
- independence of the Board;
- transparency and diffusion of information;
- respect of the shareholders' rights.

In this specific legal framework, EDF is committed to implementing the recommendations set out in this report, in particular by having the Board to adopt rules of procedure setting the main principles for its functioning, how

it should operate (see Section 16.1 ("Powers of the Board of Directors")) and the creation of specialized committees.

Given the specific legal rules that apply to the composition of the Board of Directors (see Section 14.1.1 ("Composition of the Board of Directors")), EDF does not completely comply to the Medef/AFEP report's recommendations as regard to the number of independent directors within the Board. According to those specific rules, the Board of Directors includes, out of 18 members, 12 directors (including 6 directors representing the French State and 6 directors representing the employees or the shareholders employees) that cannot correspond to the independence criteria as set out in the Medef/AFEP report.

## **Employees/human resources**<sup>69</sup>

**17** 



EDF has implemented fundamental changes (opening up of the markets and parenting of the distribution, new Personnel Representation Institutions, reform of special pension plans in France) while maintaining internal cohesion, EDF has also adhered to corporate values while fine-tuning its skills renewal strategy and progressively integrating the Group. The Human Resources workshops conducted in 2007 and those of 2008 will contribute to defining a new balance of the social contract between EDF and its employees.

Three major imperatives drive the Group's human resources policies:

 to permanently adapt the jobs and skills necessary for the success of the Industrial Project and for the development of the businesses, while pursuing an active resource optimization policy;

- to mobilize the Group's entire workforce, in particular, by offering them attractive working conditions and opportunities for professional development; and
- to promote social dialogue throughout the Group, in particular, through the implementation of the Corporate Social Responsibility agreement (see Section 17.6.3 ("Social dialogue and representation of Group employees") below), and diversity through the implementation of initiatives, following the signature in 2006 of a commitment on promoting diversity and equal opportunity (see Section 17.5 ("Equal opportunity") below.

## 17.1

#### Workforce

#### **Group workforce**

The consolidated workforce of the EDF Group totaled 158,640 persons as of December 31, 2007, with 105,322 within EDF (including RTE-EDF Transport) and 53,318 within its subsidiaries and shareholdings in France and abroad which are included in the scope of consolidation.

The table below shows the change in the workforce for the Group's shareholdings and subsidiaries, weighted by the financial consolidation percentage over the last three financial years:

As of December 31,

	2005		2006	2006		2007	
	(Number)	%	(Number)	%	(Number)	%	
EDF France <sup>(*)</sup>	109,494	68	106,565	68	105,322	66	
Subsidiaries and shareholdings	52,066	32	49,959	32	53,318	34	
TOTAL	161,560	100	156,524	100	158,640	100	

<sup>(\*)</sup> The workforce of EDF and RTE-EDF Transport are included in EDF France workforce (including employees not employed under the IEG status in EDF and RTE-EDF Transport).

<sup>&</sup>lt;sup>69</sup> The data concerning EDF presented in this section must be understood as incorporating data for ERDF; ERDF's payroll includes, in addition to its own employees, those whose services are shared, who can be broken down into 100% electricity employees (29,071) 100% gas employees (8,451), and a proportion of employees seconded to mixed gas and electricity activities (9,121 with an electricity/gas distribution key of 75/25).

#### Employees/Human Resources



#### **EDF** workforce

For some 20 years, EDF's workforce has decreased every year, except in 2000, when it increased slightly, due to the creation of jobs, following the implementation of a reduction in working hours agreement.

The table below shows the breakdown of EDF France's employees between the different Divisions/Subsidiaries as of December 31, 2007:

#### **EDF France workforce**

	Employees				
	2005	2006	2007		
Regulated sector:					
ERDF	48,011(*)	43,077(**)	36,448(**)		
RTE-EDF Transport (***)	8,313	8,333	8,550		
Deregulated sector					
Generation and engineering	36,600	35,233	35,609		
Sales	6,114	6,092	12,337		
Headquarters	9,519	9,601	8,432		
CDI and CDD (not employed under the IEG status)	937	954	694		
Island Electricity Systems (SEI)	Not available	3,275	3,252		
TOTAL	109,494	106,565	105,322		

<sup>(\*)</sup> Including SEI's workforce

#### Consolidated subsidiaries' workforce (excluding RTE-EDF Transport and ERDF)

The table below shows the breakdown of employees (Group's share) in the subsidiaries and shareholdings included in the scope of consolidation as of December 31, 2007:

		Employees	
	2005	2006	2007
Subsidiaries in France:			
(including Electricité de Strasbourg, TIRU, EDEV)	2,452	2,618	3,708
EDF Energy (United Kingdom)	11,238	12,320	13,158
EDF Trading (United Kingdom)	283	329	426
EnBW (Germany)	8,129	9,743	9,336
Edison (Italy)	1,528	1,507	1,449
Dalkia International	12,952	14,866	16,070
Other foreign subsidiaries	15,484	8,576	9,170
Eastern Europe	6,354	5,905	6,818
Western and Mediterranean Europe and Africa	1,833	1,909	1,946
Asia Pacific	324	325	321
Americas	4,381	437	85
Other	2,592	0	0
TOTAL	52,066	49,959	53,318

<sup>(\*\*)</sup> SEI's workforce excluded

<sup>(\*\*\*)</sup> The workforce of RTE-EDF Transport includes employees not employed under the IEG status

## 17.2

#### **Electricity and gas industries employment status**

As of December 31, 2007, almost all of EDF's employees were subject to the status applicable to employees of the Gas and Electricity Industries (*Industries Electriques et Gazières*, or "IEG")<sup>70</sup>. The IEG status was instituted by the French Decree of June 22, 1946 pursuant to the French law of April 8, 1946, which nationalized the electricity and gas industries. It relates to active and retired staff of the IEG branch companies.

In accordance with the provisions of Article L. 134-1 of the French Labor Code, the provisions of the status may be amended and the terms of their application may be determined contractually through company-wide agreements, within the scope established by the status. Moreover, the French law n° 2000-108 of February 10, 2000 relating to the modernization and expansion of the public service for electricity enlarged the scope of contractual applications in the electricity and gas sector by introducing industry-wide agreements, with which all

companies in the sector must comply (including foreign companies doing business in France).

#### In 2007:

- Articles 23, 25 and 31 of the code were amended by Decree No. 2007-489 of March 30, 2007, regarding management of the IEG special health insurance plan;
- Article 31 of the code was amended, and Articles 33 and 34 of the Articles of Association were abrogated by Decree No. 2007-549 of April 11, 2007, regarding the establishment of new employee representation institutions; and
- Appendix 3 of the code was amended by Decree No 2008-69 of January 22, 2008, regarding the reform of the Electric and Gas Industries's special pension scheme.

## **17.3**

### Organization and working hours

Since October 1, 1999, working hours in France are 35 hours per week with the divisions operating 5 days per week, at the minimum.

As of the end of December 2007, in France 19.2% of the employees have opted for collective or individual reductions in working hours, with partial compensation for loss of earnings.

In addition, in order to ensure the continuity of operations of EDF's facilities or to restore as soon as possible the supply of electricity in case of a technical failure, part of EDF's workforce is on continuous duty 365 days a year, and another part provides the on-call service outside working hours.

## 17.4

## Skills, training and mobility

Managing skills is an important objective for the Group's competitiveness, both in terms of economic performance and professionalism. This is particularly true in a context where the market will be totally open to competition in 2007 and where a significant number of employees will leave on retirement. As a result, training and mobility are the two principal tools for managing jobs. This explains why EDF, which operates

in a field requiring highly technical skills, has always allocated a large budget to training its employees so as to be constantly in step with professional developments and careers.

The table below sets forth this training effort within EDF and RTE-EDF Transport:

	2005	2006	2007
% of the payroll engaged in training	6.9	6.17	6.3
Number of training hours per employee	35	39	40

A large number of retirements requires the replacement of highly-qualified employees both in Generation and Engineering as well as in Distribution. Due to an unbalanced age structure (more than 60% of the workforce is over 40), the operating and maintenance teams in these two EDF core businesses will experience the retirement of approximately half

of their workforce between 2008 and 2015. These retirements in the years to come provide an opportunity to adapt the number and the profiles of the employees to the challenges of EDF on the short-term as well as on the medium-term.

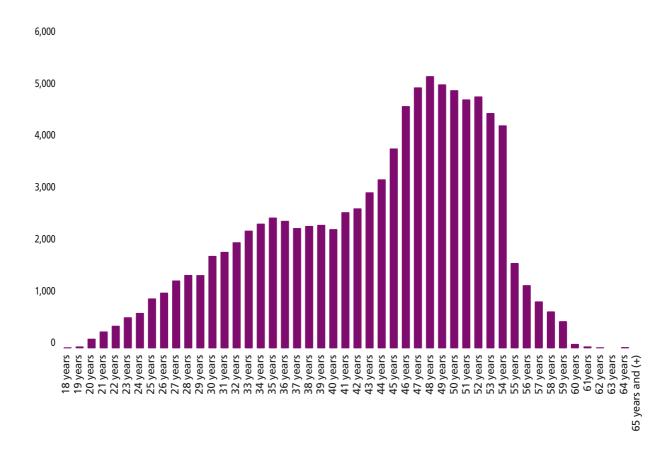
<sup>&</sup>lt;sup>70</sup> Employees of certain of the Group's French subsidiaries are also subject to IEG status (for example, the staff of Electricité de Strasbourg).

#### Employees/Human Resources



The graphic below presents the age structure as of December 31, 2007:

#### Age structure-Workforce of EDF and RTE-EDF Transport as of December 31, 2007



As for what concerns recruiting, EDF and RTE-EDF Transport hired 2,364 people in 2007. To adapt their business areas and skills, and to take into account the Group's development projects, EDF and ERDF anticipates recruiting approximately 14,000 people in France over a five years period. In the nuclear business, the company will recruit 500 engineers every year over the next five years, three times more than previously.

Concerning the recurring businesses, EDF intends to compensate for an half the 22,500 departures forecast, but in different ways depending on the jobs. For the period 2008-2010, taking into account the development businesses, the replacement rate (hiring vs retirements) should be approximately of three out of five in average.

Recruitment provides for only part of the renewal of the new and growing businesses area skills. That is why EDF set up a large program for reorganizing its declining businesses (service, central functions) around new and growing businesses areas.

For this purpose, an important training program will support these transformations. In respect of a few situations in which the transformations would be too complex or too expensive, EDF set up an end-of-career leave program for the 2006 financial year, which affected approximately 550 employees. At the end of January 2007, EDF decided to renew this program for the year 2007. affecting 450 employees.

In support of its employment policy, EDF has restructured its training program. The new entity EDF Formation is organized around the main business areas, to meet their challenges and ensure closer collaboration between managers and employees. Five specialized entities coordinated at the national level have thus been created: Engineering Generation, Sales and Marketing, Distribution, Management Training and National Expertise.

In compliance with the announced objectives, the replacement rate (recruitments/retirements) was less than one out of three in 2007. For the period 2008-2010, it will be necessary to reconcile control of the total payroll with the skills renewal required for the future, as well as considering the Group's expansion plans.

## **17.5**

#### **Equal opportunity**

#### **Apprenticeship**

Apprenticeship is one of the training methods chosen by EDF to fulfill the need to renew its internal skills and those of its main industrial partners. Apprenticeship aims at offering youngsters, and more particularly those who are less favored, the opportunity to start their career with recognized assets: a diploma and a professional experience.

EDF maintains its commitment to apprenticeship and will welcome 3,000 young people (through apprenticeship and professional contracts) into the company during 2008, representing approximately 3% of the company workforce.

EDF will have doubled, in three years, the number of apprenticeship and professional contracts in the company.

Apprenticeship concerns all Group's lines of business, namely generation, distribution and supply, as well as all levels of qualification, from the general or the technical sectors, including those with postgraduate education

If some of these youngsters in apprenticeship are meant to be hired by EDF in order to take part in the renewal of competencies, others will be able to find an employment within its service providers facing the same issue of renewal of competencies or in companies seeking skills acquired at EDF.

In total, by the end of 2007, approximately 2,600 youngsters benefited from a contract *d'alternance* with EDF (apprenticeship contracts, and professional contracts).

#### Solidarity/Seniors

The EDF Group has instituted innovative means for senior recruitment such as a special hiring program providing for subsidized contracts for people over 50 and especially the long-term unemployed. In 2007, 119 contracts were signed through this program.

#### **Diversity**

EDF's Chairman signed on June 1st, 2006, a commitment to encourage diversity and equality of opportunity within the company and to prevent discrimination. Initiatives deployed as action plans at EDF's operational senior management level are now being implemented and followed-up. EDF's policy on diversity has given rise to awareness programs for employees on representations and stereotypes linked to diversity.

In addition, EDF naturally responded favorably to the governmental initiatives to remove all the restrictions in the hiring policies in relation with age and nationality criteria which were set forth in the IEG status. The adaptation of the regulatory texts is being instructed in connection with public authorities.

On March, 30, 2006, EDF entered into a three-year agreement for the professional integration of disabled persons. The Company committed itself to recruit at least 4 % of disabled people. In addition, EDF is leading a voluntary action to welcome each year several dozens of young disabled people as apprentices.

In accordance with this commitment, EDF signed the Diversity Charter on September 22, 2006.

#### Subcontracting

In line with the agreement on the EDF Group Social Enterprise Responsibility (SER), the Company entered in October 2006 into an "agreement on socially responsible subcontracting within EDF" with three of its trade unions (CFDT, CFTC and CFE-CGC). This agreement highlights the desire to maintain lasting industrial partnerships and services beyond short-term interests, so as to allow our services providers to be able to strengthen their activities and reinforce their capacities to develop in the long-term beyond the one-time or short-term transactions. Through this agreement, EDF commits itself with subcontracting partners to concrete and realistic actions in order to ensure that their interventions are done in the best conditions of employment, qualification, work and health-safety.

## 17.6

#### Social dialogue and employee representation

#### 17.6.1 Social dialogue in France

A standard agreement "Social Agenda" for 2006-2008 was signed on July 10, 2006. This agreement reaffirms the contracting parties' will to maintain a social dialogue based on the development of collective negotiation in the Company.

The Social Agenda focuses on the necessity to reach collective agreements in fields that will allow to:

• place all the EDF's employees in the heart of the Company's performance by allowing them to ensure the consolidation or the

renewal of their abilities to a high level. Following the national observatory of the employment, already created, a negotiation is planned concerning the implementation of provisional management of employments and abilities in order to conciliate a prospective vision of employment, the adaptation of abilities and career evolution;

- to allow each employee to carry out its activity under the best conditions by favoring, notably, new practices in the areas of health and safety at work;
- to encourage diversity and fight against discrimination by reinforcing namely the equality of opportunity between male and female, the professional integration of disabled persons and committing towards social cohesion. EDF has already tried to make

#### Employees/Human Resources



access to employment easier by recruiting up to 10% of young people from difficult neighborhoods and is encouraging apprenticeship by welcoming 1,700 persons.

In this respect, most negotiations provided for in the Social Agenda were instigated within the Company and an agreement on the individual support measures for employees in the case of reorganization was signed on February 13, 2007.

Social dialogue was intense at the end of 2007 regarding major human resources issues for employees and the Company (reform of the pension plan, wage agreement, new employee representation institutions, 2008 Employee offering etc.). The dialogue has been continuing on early 2008.

#### 17.6.2 Employee representation in France

Pursuant to the national IEG status, EDF had special employee representation bodies since 1946 (statutory organizations).

EDF's method of employee representation was different from that provided in generally applicable French labor law as established by the Auroux laws of 1982. The Law of August 9, 2004 on the electricity and gas public service and on electricity and gas companies obliged all enterprises in the IEG Professional Sector to adapt their employee representation institutions (*institutions représentatives du personnel* or IRP) to comply with the provisions of the French Labor Code.

The objective of this adaptation was to replace the current statutory bodies of employee representation with the general-law system providing for the setting up of a central company committee, corporate committees, and employee representatives. The company negotiation was launched in January 2007 in order to put in place the new employees' representing entities in the given deadlines.

The Decrees of April 11, 2007 in implementation of the Law, provide for establishing a Central Works Council and local Establishment Councils, as well as Employees' Representatives before December 31, 2007. The decrees also provide for the retention of Employees' Secondary Committees for both management and non-management grade employees.

A Branch agreement dated April 27, 2007 established the date of elections for setting up the new IRPs as November 29, 2007. Agreements concerning the organization of elections and the deployment and procedures of the IRPs were also signed at corporate level on September 28, 2007. Elections were held on November 29, 2007, with a second round on December 13, 2007.

Furthermore, negotiations have been continuing within the Company on exercising trade union rights, the rules on composition and procedures for the Employees' Secondary Committees, and the establishment of a Central Works Council at EDF.

## The Central Desk of Social Activities ("Caisse Centrale d'Activités Sociales" or CCAS)

Managing social and cultural activities is delegated, contrary to French labor law, to specific organizations in the IEG branch:

- the CCAS which deals with activities at the national level;
- the 106 Caisses Mutuelles Complémentaires et d'Action Sociales (CAS) which administer local or decentralized social and cultural activities:

- until April 1, 2007, the CAS also managed the complementary IEG healthcare benefits regime.
- the CAS Coordination Committee: it represents the CAS at the national level. It is responsible for distributing resources between the CCAS (71% of the 1% paid by the IEG branch companies) and the 106 CAS (29%).

Following the IEG branch negotiations and the creation on April 1, 2007 of the IEG Health Insurance Fund (*Caisse d'Assurance Maladie des IEG* or CAMIEG) dedicated to managing the special IEG health insurance scheme, the CCAS and the CAS are now responsible solely for management of social activities.

The financing of social activities within the IEG is provided by a deduction of 1% from the operating income of the companies distributing gas and electricity, i.e., mainly sales by EDF, Gaz de France and the Local Distribution Companies. In 2007, the amount recorded by EDF and RTE-EDF Transport for this 1% was €310 million (against €309.5 million in 2006). To be added to this, in accordance with the provisions of Article R. 432-2 of the French Labor Code, are expenses related to transportation, food and accommodation which amount to €129 million in 2007.

The CCAS is a legal entity and is fully independent. It is administered exclusively by representatives of the employees and is placed under the supervision of the public authorities. Neither EDF nor any other company of the IEG branch is represented on it.

## 17.6.3 Social dialogue and representation of Group employees

In the Group's other companies, mainly abroad, employee representation is organized in accordance with applicable local laws and regulations.

#### **SOCIAL DIALOGUE ENTITIES**

Since then end of 2001, the Group created a European Works Council (*Comité d'Entreprise Européen*, or the "CEE") consulted on the Group's major policies. In May 2005, a revision of the agreement brought new provisions relating to the functioning of this body. The CEE of the EDF Group is now composed of 33 permanent members and is informed of the Group's economic, financial and social strategies.

Through its working groups, the CEE started numerous analysis relating to the drafting of human resources policies at an international level, notably concerning health and safety within the different companies of the Group in Europe or in relation with the opening of the negotiations on the social responsibility of the EDF Group.

The Comex accepted the principle of creating a France Group Committee on which negotiations with the trade unions will be initiated in the first half year 2008 following the setting up of the new employee representation institutions.

#### COMPANY'S SOCIAL LIABILITY (RSE) AGREEMENT

The EDF RSE agreement was negotiated and executed on January 24, 2005 with the employee representatives and trade unions of all of the Group's companies and with the four international trade union federations for the industry.

This agreement provides the Group with a basis for shared commitments and common orientations, which apply to EDF and to all of the

companies that it controls in accordance with the principle of subsidiarity and contributes to the long-term improvement of its performance, the construction of a Group identity, the renewal and broadening of the subjects of social dialogue

According to this agreement, an implementation report is drafted and presented each year to a special body at Group level: the Dialogue Committee on the Group's Social Responsibility. The results of the first two years of implementation of the RSE agreement show that, even with the existence of very different economic, social and cultural backgrounds, the Group's companies are already respecting a good level of the Group's

commitments. In April 2007, the signatories, emphasizing the progress achieved in the spirit of the agreement, signed an amendment extending the program for one year. Social dialogue started within all companies in order to identify in a concerted way, the provisions of the local implementation and the priorities. Seven transversal matters of the Group were subject to a deepening in the Committee in relation with the management in 2007: social protection, the fight against discrimination, employees' profit sharing, initiatives for customers with a lack of financial resources, relations with subcontractors, and assistance with the integration of disabled persons, the safety of installations, and the example set by the Group on environmental issues.

## 17.7

#### **Health and safety**

The Group operates in a high-technology sector where there are risks. The health and safety of its employees and its outside subcontractors is therefore a major imperative for the business.

Prepared in October 2003, EDF's health and safety policy in France is the fruit of a wide-ranging consultation with all interested parties (management, experts, doctors, employee representatives) within the Group. It is in line with the Group's core value of respect for the individual.

The National Committee for Orientation and Monitoring made an annual review of the health and safety policy in order to ensure its implementation, to analyze the results, check the efficiency of the provisions and suggest improvements.

The results for the health and safety policy improved slightly and made 2007 a year of consolidation following the implementation of the health and safety policy.

In France, implementation of health and safety policy priorities by the various management bodies continued in 2007, notably through a substantial investment in the prevention of risks of work-related stress.

Following tragic events, the company created a "National Monitoring Organization for Quality of Life in the Workplace", thus reinforcing its ethics plan and simplifying its procedures to foster neighborhood management.

The Organization, which held its first meeting in June 2007, is a place for dialogue, involving physicians, managers, social partners, etc. It has a monitoring mission. A Group "Quality of life in the workplace" Project Workshop is devising a method for drawing up a status report within each entity backed up by indicators.

Corporate values were reaffirmed and were the subject of an important internal communication. Each entity has appointed an ethics representative and a free "life at work" telephone number has been made available for employees in difficulty.

The following topics were also the subject of plans for action and progress in 2007: psycho-social risks, electrical risks, height works, work clothing care and control, first-aid and smoking.

In the line of what was done in 2006, the company continued to address public health issues: completion of the flu epidemic plan and a colloquium on preventing AIDS.

#### **Accidents at work**

Over the past 10 years, EDF has made a considerable effort in prevention and training, which has allowed it to significantly reduce the rate of accidents at work which result in leave.

The frequency rate in 2007 was 3.8 compared with a rate below 5 in 2006. Progress achieved in 2007 should, in the long term, allow the company to achieve a rate of 4 and thus strengthen its position as a leader among French and European energy companies who are progressing at the same pace.

The work injury safety ratio for 2007 remains at approximately 0.2 (number of calendar days, broken down by year, of accident-related absence (including those resulting from accidents in previous years) per thousand hours worked).

#### **Asbestos**

In the past, the EDF Group has, used materials and facilities containing asbestos.

The substitution of materials containing asbestos in EDF's establishments and facilities began at the end of the 1980s, and all materials containing asbestos have been treated in accordance with regulations in effect. EDF has set up information measures and arrangements for the protection of employees and subcontractors working in the company in accordance with regulations in effect.

On July 15, 1998, EDF signed an agreement (revised in June 2002) with all the trade union federations for the prevention of and compensation for exposure to asbestos. Following this agreement, EDF implemented a pre-retirement plan for workers who are recognized as suffering from a work-related illness associated with asbestos, to establish voluntary financial assistance and a pension supplement both financed by EDF and to supply corporate assistance to sick workers and their families by means of information and support during the compensation process.

See Section 20.5 ("Legal and arbitration proceedings") for a description of current procedures.



## 17.8

## The pension system and the complementary healthcare benefits system

#### 17.8.1 Special pension system

The pension system for the electricity and gas industries is a special social security system. Defined within the framework of the IEG employees' status, the special system applies to all employees in the professional branch of the IEG, whether an active or retired beneficiary. It was reformed by the Law of August 9, 2004 concerning both the management and the financing of the system. The special pension system has been managed by the *Caisse Nationale des IEG* (CNIEG), since January 1, 2005. This pension and benefit management body has managed the risks of old age but from now on it will also manage the risks of accidents in the workplace, work-related illness, invalidity and death as well as the family compensation for inactive people.

Title IV of the Law of August 9, 2004 and its implementation decrees set forth the following principles regarding the financing of the special IEG pension system from January 1, 2005:

The sole pension paid by the CNIEG to each IEG retired people is financed:

- partly by the CNAVTS, the AGIRC, and the ARRCO as part of the financing agreements which provide for the affiliation conditions of the IEG special system with the standard mandatory system. The CNIEG pays to the standard mandatory systems the contributions paid by employees and employers of the IEG branch. In exchange, the CNIEG receives from standard mandatory systems, the contributions that would have been paid to the former employees (inactive) of IEG companies if they had been affiliated to the standard mandatory systems, called base systems;
- partly by a percentage of the CTA levy (*Contribution Tarifaire d'Acheminement*, or "CTA") paid on gas and electricity transmission and distribution calculated within the integrated price;
- the remainder, corresponding to specific rights in relation to the IEGs' retirement, is financed by employers.

The reform of pension finance instituted by the Law of August 9, 2004 has not had any effect on the standard systems, for energy consumers, and for the French State budget.

Following the publication on October 10, 2007, of the orientation letter relating to the reform of special pension systems by the Ministry of Labour, Social Relations and Solidarity, the reform of pension rights for the principal special retirement systems - including IEGs - was initiated. In particular, this should extend the period of contributions needed to obtain a full pension, establish a system of pension penalties/bonuses. and index the upward adjustment of pensions for inflation. The reform, which will come into force on July 1, 2008, will be the subject of several legislative texts, of which the first was published on January 3, 2008 in the French Official Journal. Negotiations instigated in the IEG professional

branch in November 2007 covered measures on raising payments, as well as support measures for extended working lives and improvements in the social protection provisions. They continue at the beginning of 2008. Collective bargaining will continue on various topics throughout 2008 (insurance and supplementary pensions for example, consideration of special features of certain job functions, etc.) (for more details see note 41.1 to the consolidated financial statements for the year ended December 31, 2007). At the date of this Document Référence, given that all the mechanism components are not yet known, the reform and accompanying measures impact on the 2008 Group's profits as on its commitments cannot be determined in a precise manner.

## 17.8.2 IEG complementary healthcare benefits system

The IEG status instituted for working and retired personnel of the branch, a special healthcare benefits system, a mandatory social security system. The system is managed by the elected representatives of the employees and IEG pensioners. Its management, which was made by the 106 Caisses Mutuelles Complémentaires et d'Action Sociale (CAS) and their Coordination Committee is gradually being transferred to IEG Health Insurance Fund (Caisse d'Assurance Maladie des IEG or CAMIEG).

The system is supervised by the French State, which ensures compliance with the statutory documents, sets out the regulations, the level of contributions and services.

Created on April 1, 2007 CAMIEG is gradually setting up its central services and regional satellite offices, as well as partnerships with the ordinary system.

Following discussions between partners in the professional branch conducted in several stages, the regulations for the system were modified initially in 2005 by the Decrees of February 15, 2005, on the financing, then a second time in 2007 by the Decree of March 31, 2007, regarding the organization, the management and the governance of the system. Since 2005, the employers have no longer contributed to financing retirement pensions.

In 2007, a branch negotiation has been opened to have supplemental system of medical expenses repayment.

## 17.9

## **Remuneration policy**

In order to attract, encourage and develop the loyalty of the abilities that will allow EDF to face future challenges, EDF develops a policy of global remuneration, placing the company on the best practice observed in comparable lines of business.

This policy of global remuneration concerns:

- the recognition of the level of responsibility of the achieved results: wage policy;
- the recognition of collective performance through profit sharing;
- the offer of employee savings and the contribution of the company to this saving;
- employee shareholding;
- · social advantages.

#### 17.9.1 Wage policy

In order to respect the economic balance and fixed budgets, the wage policy is led by the will to recognize in an equitable way, the contribution of each person to EDF's success.

For 2006 and 2007 an agreement was entered into within the IEG Branch; it provides with an average increase of at least 2% per annum in the IEG's employees purchasing power over those two years and introduces a larger variation of individual increases. At the company level, it makes possible to reinforce the link between the contribution of each employee and its retribution by the company.

Concerning managers, the annual remuneration is completed by a variable part based on the evaluation and the recognition of individual performance: this principle has been extended to some OETAM's employees (*Ouvrier, Employé, Technicien et Agent de Maîtrise*).

For EDF, in 2007, the average annual gross remuneration was €34,842 (based on 13 months) and €24,087, €31,021, and €52,236 for the employees in the execution, technical areas, and for managers and engineers, against respectively in 2006: €23,850, €30,481 and €51,473. These data include the Retirement compensation premium amounting to 3.35% of the principal remuneration at the end of 2006 and to 2.85% in 2007.

In the framework of the IEG's special pension system reform, an agreement on wages measures has been entered into in the scope of the branch negociations on wages and pensions on January 29, 2008. This agreement provides an increase of national base salary of 0.2% on January 1, 2007 and 4.31% on January 1, 2008 of which 2.85% due to the integration in the salary of the retirement compensation premium which disappears, the payment of a €660 bonus for all the statutory employees present on December 31, 2007, the wages structure gradual increase between January 1, 2008 and January 1, 2016, the increase of starting wages for execution young employees (see note 41.1 to the consolidated financial statements for the year ended December 31, 2007).

The agreement also provides measures to accompagny professional career extension with the creation of two supplementary longevity step

increments with a gradual implementation by 2012 and a derestriction of manager's wages structure by the creation of four new remuneration levels.

#### 17.9.2 Profit-sharing

EDF has had a profit-sharing scheme for its employees for 15 years through triennial agreements. The last agreement was signed in June 2005 and covers the period from 2005 to 2007. This agreement contains specific provisions on the profit share calculation in the event that EDF were to benefit, by decision of the public authorities, from the generally applicable profit-sharing regime. It provides for, in particular, a more moderate profit share to be paid in such a case.

According to this agreement, €160 million were paid to EDF and RTE-EDF Transport's employees in 2007 for 2006 financial year. Pursuant to article L. 444-12 of the French labor code, this amount includes an additional collective profit-sharing in relation to the 2006 financial year paid to employees of EDF and RTE-EDF Transport. That amount will be shared under the terms and conditions of EDF's profit-sharing agreement and if the money is invested in a savings plan, the employer's contribution will be attributed under the same terms and conditions as the profit-sharing.

For each beneficiary, profit-sharing is composed of three parts based on criteria and objectives negotiated within its unit, its division, and the EDF group. The joint employees of EDF and Gaz de France benefit from profit-sharing according to the time they spend in each company.

Employees can choose either to receive payment, or put it in the Group's savings plan, or put it in a time saving account.

#### 17.9.3 Group corporate savings plan

The Group set up a Group Corporate Savings Plan (*Plan d'Epargne Groupe*, or "PEG") with effect as of February 1, 2005. This Group Corporate Savings Plan is open to employees of EDF and of the Group's French companies in which EDF owns directly or indirectly at least 40% of the share capital and which have signed up to the Group Corporate Savings Plan. No more payments may be made into the former EDF corporate savings plan.

Five mutual funds, including the EDF shares mutual fund (FCPE), are open to subscriptions by the EDF and RTE-EDF Transport's employees and totaled an amount outstanding of €4,6 billion by the end of 2007.

For the 2005, 2006 and 2007 financial years, EDF employees will benefit from the same rules relating to employer contributions as those that were applicable to the former plans. The amounts from profitsharing that the employees allocate to the Group Corporate Savings Plan are increased by 100% and voluntary payments are increased by 60% up to  $\leq$ 610 and by 35% for the next  $\leq$ 610, up to an annual upper limit per employee set at  $\leq$ 2,575.

For the 2007 financial year, EDF and RTE-EDF Transport contributed a total gross amount of  $\leqslant$ 139 million.

#### Employees/Human Resources



## 17.9.4 Participation of employees in the company's results

At the registration date of this *Document de Référence*, EDF has not set up any participation scheme, insofar as it is not shown on the list of state-owned companies where participation of employees in the company's results is compulsory.

## 17.9.5 Time savings account (*Compte-Epargne Temps*, or "CET")

In the framework of the social agenda, a negotiation on CET opened in 2007 in order to adapt EDF's current provisions in accordance with Fillon law  $n^{\circ}$  2005-296, of March 31, 2005 and to examine the opportunities given by this law regarding the use of CET (monetization).

At the end of 2007, the amount of the hours saved in the time savings account by the EDF and RTE-EDF Transport's employees who held a CET reached €345 million.

#### 17.9.6 Employee shareholding

At the time of the Company's public offering and more specifically in the framework of the Offer Reserved to Employees pursuant to the law n° 2004-803 dated August 9, 2004 and the law n° 86-912 dated August 6, 1986, 130,000 employees and pensioners became shareholders of the company. The initial subscription application has represented 19.6% of the entire public offering, beyond the ceileing provided by the law (15%). 83% subscribers have been fully served.

At the end of this Offer Reserved to Employees, in France, 75% of EDF's employees became shareholders. In the relevant European subsidiaries, in particular in the United Kingdom, Poland, and Hungary, the subscription rate reached 50%, showing a strong attachment to the EDF Group.

Employees and former employees of the EDF Group as of the date of this *Document de Référence* own more than 34.6 million EDF shares, that is 1.90% of the Group's share capital and 12.6% of the floating capital. Most shares acquired by employees (89%) are held within the Group Saving Plan, tied up for a five-year period.

In connection with the sale of 2.5% of EDF's capital on December 3, 2007, an Offer reserved to Employees and Former Employees will be proposed; it will affect 15% of the transaction's total amount, or about 0.4% of the share capital. Implementation should occur in 2008.

#### 17.9.7 Stock options

None.

#### 17.9.8 Free grants of shares

The Ordinary and Extraordinary Combined Shareholders' Meeting of May 24, 2007, adopted a resolution granting a delegation to the Board of Directors for a period of 12 months in order to proceed to the granting of free Company's ordinary shares, within a limit of 0.2% of the share capital, to employees or directors, or some of them, of the Company or related companies or groups pursuant to article L. 225-197-2 of the French Commercial Code.

The Board of Directors' meeting held on August 30, 2007 prepared a list of beneficiaries and the number of shares to be allocated to each.

The plan for the allocation of bonus shares, called ACT 2007, concerns the allocation of 2,883,183 shares. This is a plan for all Group employees (the main exception being EnBW and Edison employees), i.e., approximately 150,000 beneficiaries spread over twenty-two countries. The distribution procedures for beneficiaries are covered by a collective agreement signed on June 8, 2007, by the three trade unions. This represents on average 19.2 shares per beneficiary employee, with a minimum of ten and a maximum of fifty.

Final allocation of the shares on August 31, 2009 is subject to two conditions:

- Continuous presence during the acquisition period; and
- Achieving a collective performance objective, that is, a year-on-year average increase in the Group's EBITDA (growth excluding the effects of consolidation and with constant accounting principles without taking into account the volatility due to the IAS 32/39 standards application) of a least 3% per annum for the period 2006-2008.

## Major shareholders

18



<b>18.1</b> Breakdown of share capital and voting rights	P. 203
<b>18.2</b> Market for the Company's shares	P. 203
<b>18.3</b> Agreement which could lead to a change of control	P. 204

## **18.1** Breakdown of share capital and voting rights

As of December 31, 2007, the breakdown of EDF's share capital was as follows:

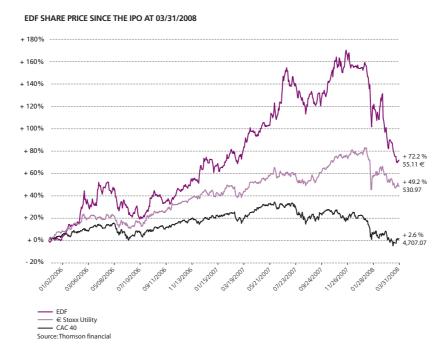
	Number of Shares and Voting Rights	%
French State	1,546,080,439	84.8
Public (institutions and investors)	240,850,217	13.3
Employee shareholding	35,110,931 <sup>(1)</sup>	1.9
Treasury shares	129,503	0.0
TOTAL	1,822,171,090	100

<sup>(1)</sup> This figure includes shares owned by EDF's current and former employees through mutual fund (FCPE) "EDF Shares" ("Actions EDF") of the EDF Group savings plan and EDF Group International saving plan (29,691,771) and shares subscribed outside Group saving plan, with an unsignability delay of two years within the Offer Reserved to Employees at the time of the Company's public offering. This figure does not include the subscribed shares, without unassignability delay, within the Offer Reserved to Employees at the time of the Company's public offering.

## **18.2** Market for the Company's shares

Since November 21, 2005, EDF shares have been listed on Eurolist by Euronext Paris SA.

The following graphic sets forth the development of the trading price of the Company's shares since that date until March 31, 2008:



#### Major shareholders



The table hereunder sets forth the development of the Company's share market price from January 2007 until March 31, 2008, inclusively:

	Transa	ctions	Closing marke	t price in euros
Listing Period	In millions <sup>(1)</sup> of shares	In millions <sup>(1)</sup> of euros	Highest	Lowest
January 07	28.8	1,526	55.15	51.50
February 07	24.4	1,376	58.10	54.35
March 07	28.4	1,641	62.76	54.03
April 07	18.5	1,165	64.29	61.86
May 07	24.8	1,641	68.93	64.64
June 07	46.3	3,399	80.63	66.67
July 07	34.8	2,677	81.44	72.82
August 07	33.5	2,413	74.77	68.21
September 07	28.3	2,053	74.25	70.54
October 07	32.7	2,589	84.52	73.18
November 07	39.2	3,263	86.45	80.07
December 07	36.9	3,021	82.30	81.25
January 08	58.3	4,324	82.94	64.58
February 08	54.4	3,651	74.00	61.75
March 08	54.6	3,173	60.87	54.37

<sup>(1)</sup> Transactions in millions of Euros correspond to the monthly sum of the daily number of exchanged securities multiplied by the market closing price of that same day. (Source: Thomson Financial)

#### Year 2007

# Throughout 2007, EDF's share market price increased by 48%, while the French index CAC 40 progressed 1% and the Euro Stoxx Utility increased by 24%.

By December 31, 2007, the closing market price of the EDF share was of €81.48 (against €55.20 on December 31, 2006). Its lowest closing market price during 2007 was €51.50 on January 5, and its highest closing market price was €86.45 on November 22.

On December 31, 2007, EDF's market capitalization amounted to  $\ensuremath{
extrm{$\in$}}$ 148.5 billion.

#### Year 2008

Since the beginning of the year 2008 and until March 31, 2008, EDF's share market price fell by -32%, the French index CAC 40 by -16% and the Euro Stoxx Utility by -16%.

By March 31, 2008, the closing market price of the EDF share was of €55.11 (against €81.48 on December 31, 2007). Its lowest closing market price during 2008 until March 31, was €54.37 on March 26, and its highest closing market price was €82.94 on January 7.

On March 31, 2008, EDF's market capitalization amounted to  $\in$ 100.4 billion.

## 18.3

## Agreement which could lead to a change of control

To EDF's knowledge, there is no agreement which could later lead to a change of control.

## **Related party transactions**

19



<b>19.1</b> Relationships with the French State	P. 205
<b>19.2</b> Relationships with Gaz de France	P. 206
19.3 Relationships with the Areva group	P. 206
19.4 Relationships with group entities within the scope of consolidation	P. 206

Apart from the information presented below, the details of the transactions concluded by the Company with related parties for the 2007 finan-

cial year is mentioned in note 39 to the consolidated financial statements for the year ended December 31, 2007.

## **19.1** Relationships with the French State

As of December 31, 2007, the French State held 84.85% of the share capital and voting rights of EDF. As mentioned in Section 4.2.4 ("Risks relating to the structure and changes within the Group") above, modifications to the share capital may not have the effect of reducing the shareholding of the French State to less than the threshold of 70%.

The French State is thus entitled, as any majority shareholder, to control Company decisions requiring the shareholders' approval. In particular, the French State, as the majority shareholder, can in practice influence the result of the shareholders' vote in electing directors and more generally in any question which is subject to the shareholders' vote.

The French Government Shareholding Agency (Agence des Participations de l'Etat, or "APE"), created by the French Decree n° 2004-963 of September 9, 2004, exercises the duties of the French State in its capacity as shareholder in the Company, and, as such, suggests and implements the decisions and orientations of the French State in cooperation with all of the ministries involved.

In accordance with the legislation applicable to all companies of which the French State is the majority shareholder, EDF may be subject to certain French State inspection procedures, in particular through an economic and financial inspection assignment, pursuant to the French Decree n° 55-733 of May 26, 1955 relating to the economic and financial verification by the French State, and of the French Decree n° 53-707 of August 9, 1953 relating to French State inspection of national public companies and certain entities with an economic or social purpose.

An agreement on the monitoring of external growth investments of the EDF Group entered into between the French State and the EDF Group on July 27, 2001, imposes procedures with respect to the French State's approval and information (prior or otherwise) for certain Group equity participation, extension or disposal projects. The agreement also implemented a procedure for monitoring the results of these external growth transactions.

EDF is also subject to auditing procedures of the French Court of Auditors (*Cour des Comptes*) and of the French Parliament. Thus, in addition to the examination carried out by the two auditors, the accounts and the administrative management of the Company and, as appropriate, that of its direct majority subsidiaries, come under the jurisdiction of the French Court of Auditors in accordance with Articles L. 111-4, L. 133-1 and

L. 133-2 of the French Code of Financial Jurisdictions (*Code des Juridictions Financières*). Thus, after examining the accounts, the French Court of Auditors may also request the communication of all documents necessary for accomplishing its auditing mission, and hear any person of its choosing. Finally, the French Statutory Decree of October 30, 1935 organizing the French State's inspection of companies, trade unions and associations or companies of any nature that have received the financial support of the French State, allows the minister in charge of the economy to subject EDF to the verifications of the general finance inspection ("Inspection générale des Finances").

Moreover, the sale of EDF shares by the French State or the dilution of the French State's shareholding in the share capital of EDF is subject to a special procedure pursuant to the applicable regulations, and in particular to the French laws n° 86-793 of July 2, 1986, n° 86-912 of August 6, 1986 and n° 93-923 of July 19, 1993. Finally, like other electricity generators, EDF participates in the multi-year generation investment program decided by the Minister of Energy. This programming sets, in particular, the objectives with regards to the allocation of generation capacities per primary energy source. For more details on the multi-year programming of generation investments, see Section 6.5.1.2 ("French legislation") above.

On October 24, 2005, the French State and EDF entered into a contract dealing with the public service commitments assigned to EDF (see Section 6.5.1.2 ("French legislation") above).

The French State also intervenes within the framework of the regulation of the electricity and gas markets (see Section 6.5.1.2 ("French legislation") above), in particular, for authorizations for planning and operating generation installations and for certificates awarding the right to a purchase obligation, for establishment of regulated tariffs, for the establishment of tariffs for transmission and distribution as well as for the amount of the Contribution to the public service charges for electricity (Contribution aux Charges du Service Public de l'Electricité, or "CSPE").

Finally, EDF supplies electricity to various public sector entities: government services, local authorities and public sector companies. These entities are today eligible customers for which EDF competes with other electricity suppliers. Some of them have exercised their right of eligibility and changed suppliers.



## 19.2

#### Relationships with Gaz de France

EDF and Gaz de France were created in the form of EPICs pursuant to the French Law of April 8, 1946. Article 5 of this law provided that special conventions could be entered into between the two public companies for the organization of joint services or the transfer to one of these two companies of these services, that are normally within the domain of the other. Pursuant to this law, joint entities have been created within EDF and Gaz de France: the Distribution Division that became EDF GDF Services, the Personnel and Social Relations Division (*Direction du Personnel et des Relations Sociales*, or "DPRS") which became the National Centre for Assessment and Professional relations ("CNERP") and the Information Technology and Telecommunications Division (*Direction Informatique et Télécommunications*, or "DIT").

The Law of August 9, 2004 modified Article 5 of the French Law of 1946, which henceforth provides that EDF and Gaz de France, both majority-owned by the French State, were entitled to create joint services by contract. The creation of such services is compulsory in the distribution sector for:

- the building of infrastructures;
- acting as main contractor for works;
- the operation and maintenance of networks;
- meter reading operations; and
- generally, other missions relating to these activities.

The common services thus created may also provide services on behalf of certain other distributors.

Article 27 of the Law of December 7, 2006 concerning the energy sector imposed the creation of a common service to the two subsidiaries, respectively in charge of electricity and gas distribution, with no legal personality.

Following the transfer of supply activities to subsidiaries, the two subsidiaries of EDF (ERDF) and Gaz de France (GRDF) share a common service in accordance with the legal framework. For more details regarding the organization of this mixed service, see Section 6.2.2.2.3 "Organization" above.

In addition to the above common service, EDF and Gaz de France to date have only one other service with mixed personnel: Information and Technology Management (*Direction Informatique et Télécommunication* or DIT) a mixed entity responsible for certain information systems.

Regarding the cooperation between EDF and Gaz de France with respect to the DIT, a partnership agreement was signed on July 1, 2004 in order to specify the nature of the activities and the governance methods of this common body.

## **19.3**

#### Relationships with the Areva group

See Section 4.3 ("Dependency factor").

## 19.4

## Relationships with group entities within the scope of consolidation

EDF has entered into various commercial contracts with its subsidiaries and affiliates. EDF and EnBW, in particular, entered into a cooperation agreement in 2001, which provides for the methods of cooperation between the two companies. This contract was entered into for an unlimited duration, and could not be terminated before 2006.

EDF has also entered into cash flow agreements with controlled operating subsidiaries (i.e., excluding Edison, EnBW and Dalkia, see Chapter 7 ("Organizational Structure – Contracts within the Group")). EDF has also

granted guarantees to some of its subsidiaries that are mentioned in the Group's consolidated off-balance sheet commitments.

EDF, on one hand and RTE-EDF Transport and ERDF on another hand, have entered into agreements as regard their technical and financial relationships.

The agreements entered into with companies that are proportionally consolidated and with companies that are consolidated under the equity method relate in particular to the sale and purchase of energy.

20

# Financial information on assets, the financial statements and results of the Company

•
•
 • • •
•

<b>20.1</b> Historical financial information	P. 207
<b>20.2</b> Auditors' report on consolidated financial statements for the financial year ending December 31, 2007	P. 308
<b>20.3</b> Fees paid by the Group to statutory auditors	P. 310
20.4 Dividend policy	P. 311
<b>20.5</b> Legal and arbitration proceedings	P. 312
20.6 Significant change in the company's financial or trading position	P. 318

## 20.1 Historical financial information

Pursuant to article 28 of the European Commission Regulation 809/2004 of April 29, 2004, the following information is included by reference in the present *Document de Référence*:

- the consolidated financial statements at December 31, 2005, prepared under international accounting standards, as well as the associated statutory auditors' report, which are mentioned in Section 20.1 (pages 213 to 308) and 20.2 (page 309) of EDF's 2005 *Document de Référence*,
- the consolidated financial statements at December 31, 2006, prepared under international accounting standards, as well as the associated statutory auditors' report, appear respectively in Section 20.1 (pages 197 to 289) and 20.2 (page 290) of EDF's 2006 *Document de Référence*.

The consolidated financial statements at December 31, 2007 (established under IAS-IFRS standards) are set forth below.

# CONSOLIDATED FINANCIAL STATEMENTS AT DECEMBER 31, 2007

. . . . .

000

.

0 0

.

0

0

.

000

0 0 0

...

...

...

6 6 G

0000

3530

.

•

.

۰

.

0

0

.

. . .

0,010

0000 ....

....

....

....

0000

000

5000

.

.

.

. •

0 0

#### Contents

	,	ŧ.
٠		è

Conso	olid	ated income statements	212	Note 5. Significant events and transactions	244
Conso	olid	ated balance sheets	213	of 2007 and 2006	241
Consc	olid	ated cash flow statements	214	<b>5.1</b> Significant events and transactions of 2007	241
Chan	aes	in consolidated equity	215	5.2 Significant events and transactions of 2006	242
	_	the consolidated financial staten		Note 6. Changes in the scope of consolidation	243
Note	1. 0	Group accounting standards	216	<b>6.1</b> Changes in the scope of consolidation in 2007	243
	1.1	Declaration of conformity		6.2 Changes in the scope of consolidation in 2006	244
		and Group accounting policies	216	Note 7. Segment reporting	245
•	1.2	Changes in accounting methods	247	Note 7. Segment reporting	
		at January 1, 2007	217	7.1 Reporting by geographical area	245
Note	<b>2.</b> S	summary of the principal accoun	ting	7.2 Income from external sales by geographical area based on client location	247
	а	and valuation methods	218	7.3 Reporting by business segment	247
2	2.1	Valuation	219		
:	2.2	Management judgment and estimates	219		248
	2.3	Consolidation methods	220	Note 9. Fuel and energy purchases	248
	2.4	Financial statement presentation rules	221	Note 10. Other external expenses	<b>249</b>
	2.5	Translation methods	221	Note 11. Contractual obligations	
	2.6	Related parties	222 222	and commitments	<b>249</b>
	2.7 2.8	Sales Income taxes	222	11.1 Purchase commitments	249
	2.0 2.9	Goodwill and business combinations	222	11.2 Electricity supply commitments	250
		Other intangible assets	224	11.3 Operating contract commitments	
		Concession assets, generation assets		and guarantees	251
		and other property, plant and equipment,	224	11.4 Operating lease commitments	252
:	2.12	Concession agreements	225	Note 12. Personnel expenses	252
2	2.13	Leases	226	•	252
2		Impairment of intangible assets other		12.1 Personnel expenses	252
		than goodwill and of property, plant and equipment	227	12.2 Average workforce	233
		Financial assets and liabilities	227	Note 13. Other operating income	252
		Inventories and work-in-process	230	•	253
		Trade receivables	230	Note 14. Impairments / reversals	254
:	2.18	Cash and cash equivalents	230	Note 15. Other operating income	
:	2.19	Equity	231	and expenses	255
2	2.20	Treasury shares	231	Note 16. Financial result	255
2	2.21	Provisions	231	16.1 Cost of gross financial indebtedness	255
2	2.22	Provisions for employee benefits	232	16.2 Discount expense	256
:	2.23	Special concession liabilities	233	16.3 Other financial income and expenses	256
:	2.24	Investment subsidies	233	Note 17. Income taxes	257
		Environmental expenses	233		
		Basic and diluted earnings per share	234	17.1 Breakdown of tax liability	257
2	2.27	Held-for-sale assets and liabilities and discontinued operations	234	17.2 Reconciliation of the theoretical and effective tax expense	257
		•	254	17.3 Breakdown of deferred tax assets	237
Note	3. P	Public electricity distribution	sion	and liabilities by nature	259
		concessions in France and conces agreements for other activities	234	17.4 Losses carried forward and tax credits	259
				17.5 Tax recorded against equity	259
	3.1 3.2	IFRIC 12	234	Note 18. Goodwill	260
•	<b>5.</b> 2	Specific points concerning the French public electricity distribution concession	235		261
Mada		Samuele Hitter	220	Note 19. Other intangible assets	20 I
Note	4. (	Comparability	238	<b>19.1</b> At December 31, 2007	261
4	4.1	Income statement reclassifications	238	<b>19.2</b> At December 31, 2006	261
4	4.2	Impact of the change in presentation	220	Note 20. Property, plant and equipment	
	4.3	of property, plant and equipment  Reclassification in the nuclear	239	operated under French public	262
•		provision accounts	241	electricity distribution concessions	262

	20.1	Net value of property, plant and equipment operated under French public electricity distribution concessions	262	31.2	Impact of application of the law of June 28, 2006 on provisions for the back-end nuclear cycle and provisions for decommissioning	
	20.2	Movements in property, plant and equipment			and last cores booked by EDF in France	277
		operated under French public electricity distribution concessions (excluding assets			Provisions for back-end nuclear cycle	278
		in progress)	262		Provisions for decommissioning and last cores  Secure financing of long-term obligations	280
Note	21.	Property, plant and equipment		21.6	for EDF's nuclear installations	284
		operated under concessions for other activities	263		Provisions for employee benefits  Other provisions and contingent liabilities	287
			203	31.7	other provisions and contingent habilities	207
		Net value of property, plant and equipment operated under concessions for other activities	263	Note 32.	Specific French public electricity distribution concession liabilities	
	21.2	Movements in property, plant and equipment operated under concessions for other activities (excluding construction in progress			for existing assets and assets to be replaced	289
		and finance-leased assets)	263	Note 33.	Current and non-current financial liabilities	289
Note	22.	Property, plant and equipment used in generation and other		33.1	Breakdown between current and non-current financial liabilities	289
		tangible assets owned by the Group	264	33.2	Loans and other financial liabilities	290
		by the Gloup	204	33.3	Net indebtedness	292
	22.1	Net value of property, plant and equipment		33.4	Changes in net indebtedness	292
		used in generation and other tangible assets owned by the Group	264	33.5	Guarantees of borrowings	293
	22.2	Movements in property, plant and equipment used in generation and other tangible assets			Management of financial risks	294
		owned by the Group (excluding construction		Note 35.	Derivatives and hedge accounting	295
		in progress and finance-leased assets)	265	35.1	Fair value hedges	295
	22.3	Finance lease obligations	266	35.2	Cash flow hedges	295
Note	23.	Investments in companies		35.3	Hedges of net investments in foreign entities	295
		accounted for under	200	35.4	Impact of hedging derivatives on equity	296
		the equity method	266	35.5	Commodity-related fair value hedges	298
		Current and non-current financial assets	267	Note 36.	Derivative instruments not recorded as hedges	298
	24.1	Breakdown between current and non-current financial assets	267	36.1	Interest rate derivatives held for trading	298
	24.2	Change in current and non-current		36.2	Currency derivatives held for trading	299
		financial assets other than derivatives	268	36.3	Equity derivatives	299
	24.3	Details of financial assets	268	36.4	Commodity derivatives not classified as hedges	300
	24.4	Fair value of financial assets recorded at amortized cost	270		Other liabilities	301
	24.5	Investment commitments	270	Note 38.	Contribution of joint ventures	301
Note	25.	Inventories, including work-in-process	272		Related parties	302
Niete	26	•	272	39.1	Transactions with entities included in the scope of consolidation	302
		Trade receivables		39.2	Relations with the French State	
		Other receivables	273		and State-owned entities	302
		Cash and cash equivalents	273	39.3	Management compensation	303
		Held-for-sale assets and liabilities	274	Note 40.	Environment	304
Note	30.	Equity	274	40.1	Greenhouse gas emission quotas	304
	30.1	Share capital	274	40.2	Energy savings certificates	
	30.2	Treasury shares	275		and measures to develop use of renewable energies	304
	30.3	Dividends	275		_	
	30.4	Basic earnings per share and diluted earnings per share	275		Subsequent events  Reform of the special electricity	305
	30.5	Capital management	276	41.1	and gas sector (IEG) pension system	305
Note	31.	Provisions	276	41.2	EDF bond issue	305
	31.1	Breakdown between current		Note 42.	Scope of consolidation	306
		and non-current provisions	276			

## Consolidated financial statements



## **Consolidated Income Statements**

(in millions of euros)	Notes	2007	2006 <sup>(1)</sup>
Sales	8	59,637	58,932
Fuel and energy purchases	9	(23,215)	(23,949)
Other external expenses	10	(9,797)	(8,721)
Personnel expenses	12	(9,938)	(9,709)
Taxes other than income taxes		(3,236)	(3,175)
Other operating income and expenses	13	1,759	1,015
Operating profit before depreciation and amortization		15,210	14,393
Net depreciation and amortization		(5,628)	(5,363)
Net increases in provisions for renewal of property, plant and equipment operated under concessions		(504)	(463)
(Impairment) / reversals	14	(150)	121
Other income and expenses	15	1,063	668
Operating profit		9,991	9,356
Cost of gross financial indebtedness	16.1	(1,492)	(1,606)
Discount expense	16.2	(2,632)	(2,530)
Other financial income and expenses	16.3	1,590	1,435
Financial result		(2,534)	(2,701)
Income before taxes of consolidated companies		7,457	6,655
Income taxes	17	(1,841)	(1,146)
Share in income of companies accounted for under the equity method	23	168	263
Net income from discontinued operations		9	5
Group net income		5,793	5,777
Minority interests		175	172
EDF NET INCOME		5,618	5,605
Earnings per share in euros:			
Net earnings per share in euros	30.4	3.08	3.08
Diluted earnings per share in euros	30.4	3.08	3.07

<sup>(1)</sup> The figures published for 2006 have been restated to reflect the change in presentation whereby net increases in provisions for renewal of property, plant and equipment operated under concession are reported under a specific heading (see notes 3.2.3 and 4).

## **Consolidated Balance Sheets**

ASSETS (in millions of euros)	Notes	12.31.2007	12.31.2006 <sup>(1)</sup>	
Goodwill	18	7,266	7,123	
Other intangible assets	19	2,421	2,100	
Property, plant and equipment operated under French public electricity distribution concessions	20	39,982	39,192	
Property, plant and equipment operated under concessions for other activities	21	27,151	27,768	
Property, plant and equipment used in generation and other owned by the Group	22	37,808	36,921	
Investments in companies accounted for under the equity method	23	2,530	2,459	
Non-current financial assets	24	15,805	13,094	
Deferred tax assets	17	1,609	2,167	
Non-current assets		134,572	130,824	
Inventories, including work-in-process	25	8,678	7,431	
Trade receivables	26	16,100	15,716	
Current financial assets	24	14,876	17,010	
Current tax assets	17	376	431	
Other receivables	27	5,243	4,226	
Cash and cash equivalents	28	6,035	3,308	
Current assets		51,308	48,122	
Assets classified as held for sale	29	269	140	
TOTAL ASSETS		186,149	179,086	
<b>EQUITY AND LIABILITIES</b> (in millions of euros)	Notes	12.31.2007	12.31.2006	
Capital	30	911	911	
Consolidated reserves and income		26,299	22,398	
Equity (EDF share)		27,210	23,309	
Minority interests		1,586	1,490	
Total Equity		28,796	24,799	
Provisions for back-end nuclear fuel cycle	31.3	16,699	14,636	
Provisions for decommissioning and for last cores	31.4	13,097	13,606	
Provisions for employee benefits	31.6	12,240	12,377	
Other provisions	31.7	2,002	2,505	
Non-current provisions	31.1	44,038	43,124	
Rights of grantors in existing assets operated under French public electricity distribution concessions	32	18,227	17,800	
Rights of grantors in assets operated under French public electricity distribution concessions, to be replaced	32	18,730	18,427	
Non-current financial liabilities	33.1	17,607	19,983	
Other liabilities	37	5,624	5,385	
Deferred tax liabilities	17	4,435	4,646	
Non-current liabilities		108,661	109,365	
Provisions	31.1	4,696	4,018	
Trade payables and other current liabilities payable		9,867	9,457	
Current financial liabilities	33.1	16,918	15,110	
Current tax liabilities		391	621	
Other liabilities	37	16,706	15,600	
Current liabilities		48,578	44,806	
Liabilities related to assets classified as held for sale	29	114	116	
TOTAL EQUITY AND LIABILITIES		186,149	179,086	

<sup>(1)</sup> The figures published for 2006 have been restated to reflect changes in the presentation of property, plant and equipment in the assets, and special concession liabilities in the liabilities (see notes 2.11, 2.12, 3 and 4).

## Consolidated financial statements



## **Consolidated Cash Flow Statements**

(in millions of euros)	Notes	2007	2006
Operating activities:			
Income before tax from consolidated companies		7,457	6,655
Impairment	14	150	(121)
Accumulated depreciation and amortization, provisions and change in fair value		6,130	7,459
Financial income and expenses		642	789
Dividends received from companies accounted for under the equity method		130	92
Capital gains/losses		(860)	(789)
Change in working capital		(269)	654
Net cash flow from operations		13,380	14,739
Net financial expenses disbursed		(921)	(931)
Income taxes paid		(2,237)	(1,462)
Payment related to the dismantling of Marcoule site		-	(551)
Net cash flow from operating activities		10,222	11,795
Investing activities:			
Acquisition of companies, net of cash acquired	6	253	691
Purchases of property, plant and equipment and intangible assets	20,21,22	(7,490)	(5,935)
Net proceeds from sale of property, plant and equipment and intangible assets	20,21,22	229	272
Changes in financial assets	24	1,580	(8,797)
Net cash flow used in investing activities		(5,428)	(13,769)
Financing activities:			
Issuance of borrowings	33	7,059	3,686
Repayment of borrowings	33	(6,357)	(4,254)
Dividends paid by parent company	30.3	(3,170)	(1,439)
Dividends paid to minority interests		(90)	(93)
Capital increase subscribed by minority interests		178	24
Increase in special concession liabilities		238	219
Investment subsidies		32	63
Treasury shares		(6)	-
Net cash flow from financing activities		(2,116)	(1,794)
Net increase/(decrease) in cash and cash equivalents		2,678	(3,768)
Cash and cash equivalents - opening balance		3,308	7,220
Effect of currency fluctuations		(42)	(3)
Financial income on cash and cash equivalents		96	76
Effect of other reclassifications		(5)	(217)
CASH AND CASH EQUIVALENTS - CLOSING BALANCE		6,035	3,308

## **Changes in Consolidated Equity**

(in millions of euros)	Capital	Consolidated reserves and net income	Treasury shares	Translation adjustments	Impact of restatement to fair value of financial instruments	Equity (EDF share)	Minority interests	Total Equity
Equity at December 31, 2005	911	17,399	-	(13)	1,016	19,313	961	20,274
Changes in the fair value of available-for-sale financial assets (1)	-	-	-	-	516	516	1	517
Changes in the fair value of hedging instruments (2)	-	-	-	-	(1,131)	(1,131)	-	(1,131)
Translation adjustments	-	-	-	63	(9)	54	(3)	51
Net income directly recorded in equity	-	-	-	63	(624)	(561)	(2)	(563)
Net income for the period	-	5,605	-	-	-	5,605	172	5,777
Total recognized in net income for the period	-	5,605	-	63	(624)	5,044	170	5,214
Dividends paid	-	(1,439)	-	-	-	(1,439)	(93)	(1,532)
Repurchase of treasury shares	-	-	(74)	-	-	(74)	-	(74)
Sales of treasury shares	-	-	74	-	-	74	-	74
Other changes (3)	-	211	-	260	(80)	391	452	843
Equity at December 31, 2006	911	21,776	-	310	312	23,309	1,490	24,799
Changes in the fair value of available-for-sale financial assets(1):								
Valuation gains (losses) taken to equity	-	-	-	-	493	493	1	494
Transferred to income on sale	-	-	-	-	(200)	(200)	-	(200)
Changes in the fair value of hedging instruments (2):								
Gains (losses) taken to equity	-	-	-	-	720	720	1	721
Transferred to income on sale	-	-	-	-	827	827	-	827
Translation adjustments	-	-	-	(450)	-	(450)	21	(429)
Net income recognized directly in equity	-	-	-	(450)	1,840	1,390	23	1,413
Net income	-	5,618	-	-	-	5,618	175	5,793
Total recognized in income for the period	-	5,618	-	(450)	1,840	7,008	198	7,206
Dividends paid (4)	-	(3,170)	-	-	-	(3,170)	(90)	(3,260)
Repurchase of treasury shares	-	-	(38)	-	-	(38)	-	(38)
Sales of treasury shares	-	-	32	-	-	32	-	32
Other changes	-	42	-	22	5	69	(12)	57
EQUITY AT DECEMBER 31, 2007	911	24,266	(6)	(118)	2,157	27,210	1,586	28,796

<sup>(1)</sup> These changes result from fair value measurement, and transfers to income of changes in the fair value of available-for-sale financial assets. In 2006 and 2007, they essentially concern EDF.

<sup>(2)</sup> These changes correspond to the effects of fair value measurement of hedging instruments and amounts transferred to income in respect of terminated contracts. The €1,547 million change at December 31, 2007 mainly reflects transfers to income of gains and losses on EDF Energy contracts that were in existence at December 31, 2006 and reached maturity in 2007. The €(1,131) million change at December 31, 2006 primarily resulted from the fall in prices on the energy markets at the end of the year, which led to negative fair value adjustments on gas and electricity contracts documented as hedges, mainly in the United Kingdom.

<sup>(3)</sup> Other changes in equity during 2006 included the deconsolidation of translation adjustments related to the Light Group (€258 million), and the revaluation of identifiable assets of EDF Energies Nouvelles (€86 million) following acquisition of exclusive control over the company (see note 6). The change in minority interests essentially resulted from this takeover of EDF Energies Nouvelles (€462 million).

<sup>(4)</sup> Including interim dividends of €1,057 million.



### Notes to the consolidated financial statements

Electricité de France (EDF or the "Company") is a French société anonyme governed by French Law, and registered in France.

The Company's consolidated financial statements include the accounts of the Company and its subsidiaries, and the Group's share in the results of joint ventures and associates (all collectively referred to as the "Group").

The Group is an integrated energy company engaged in all aspects of the energy business: generation, transmission, distribution, supply and trading of energies.

The Group's consolidated financial statements at December 31, 2007 were prepared under the responsibility of the Board of Directors and approved by the Directors at the Board meeting held on February 19, 2008. They will become final after approval at the general Shareholders' Meeting to be held on May 20, 2008.

### Note

### **Group accounting standards**

1

**1.1** Declaration of conformity and Group accounting policies

P.216

••••

**1.2** Changes in accounting methods at January 1, 2007

P.217

### 1.1

### **Declaration of conformity and Group accounting policies**

Pursuant to European regulation 1606/2002 of July 19, 2002 on the adoption of international accounting standards, the EDF Group's consolidated financial statements for the year ended December 31, 2007 are prepared under the international accounting standards published by the IASB and approved by the European Union for application at December 31, 2007. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and interpretations issued by the SIC and IFRIC.

The consolidated financial statements for 2007 contain comparative information for the financial year 2006 prepared on the same accounting standards.

In application of IAS 8, the comparative figures at December 31, 2006 have been restated to reflect changes in presentation (see note 4).

### Changes in accounting methods at January 1, 2007

The accounting and valuation methods applied by the Group in the consolidated financial statements for the year ended at December 31, 2007 are identical to those used in the consolidated financial statements for the year ended at December 31, 2006, except for the following standards, amendments and interpretations which became mandatory from January 1, 2007:

- Amendment to IAS 1, "Presentation of financial statements capital disclosures", which adds required disclosures for evaluation of the Company's objectives, processes and policies for managing its capital;
- IFRIC 7, "Applying the restatement approach under IAS 29: financial reporting in hyperinflationary economies";
- IFRIC 8, "Scope of IFRS 2, Share-based payment": this interpretation clarifies the scope of application of IFRS 2 for transactions where an entity cannot expressly identify all or some of the goods or services received;
- IFRIC 9, "Reassessment of embedded derivatives";
- IFRIC 10, "Interim financial reporting and Impairment": this interpretation clarifies that impairment affecting goodwill and certain financial assets (investments in available-for-sale equity instruments and financial assets carried at cost) recorded in the interim financial statements cannot subsequently be reversed;
- IFRS 7, "Financial instruments: disclosures", which defines additional disclosures on financial assets and liabilities, to enable users to evaluate the significance of financial instruments for the entity's financial position and performance, and the nature and scope of the associated risks.

With the exception of the new disclosures required by IFRS 7, these standards, amendments and interpretations have no significant impact on the Group's financial statements.

The Group has decided regarding standards endorsed by the European Union in 2007 but not yet mandatory in 2007:

- To apply IFRIC 11, "IFRS 2: Group and Treasury Share Transactions" from 2007. This interpretation was endorsed for application by the European Union (EU) at December 31, 2007 and states that share-based payment transactions whereby an entity receives services in return for equity instruments are to be recorded as equity-settled transactions. The same applies to transfers of equity instruments of the entity's parent company or another group entity to third parties in consideration of supplies of goods and services;
- Not to apply IFRS 8, "Operating segments" before its mandatory application date. This standard, which will replace IAS 14, requires the entity's financial performance and operating segments to be presented in the form in which they are regularly reviewed by management.

The Group has not opted for early application of the following standards and amendments likely to be endorsed by the EU during 2008:

- Revised IAS 1, "Presentation of financial statements";
- Amendment to IAS 23, "Borrowing costs", which removes the option allowing immediate expensing of borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset, and therefore requires these costs to be capitalized as part of the costs of that asset:
- IFRIC 13 "Customer loyalty programmes";
- IFRIC 14, "IAS 19 The limit on a defined benefit asset, minimum funding requirements and their interaction".

The potential impact of all of these standards, amendments and interpretations is currently being evaluated.

IFRIC 12, "Service concession arrangements", is discussed specifically in Note 3.

....}

# Note 7

# Summary of the principal accounting and valuation methods

	•
•••	• 🌣

<b>2.1</b> Valuation	P.219
<b>2.2</b> Management judgment and estimates	P.219
2.3 Consolidation methods	P.220
<b>2.4</b> Financial statement presentation rules	P.221
2.5 Translation methods	P.221
<b>2.6</b> Related parties	P.222
<b>2.7</b> Sales	P.222
<b>2.8</b> Income taxes	P.222
<b>2.9</b> Goodwill and business combinations	P.223
<b>2.10</b> Other intangible assets	P.224
<b>2.11</b> Concession assets, generation assets and other property, plant and equipment	P.224
<b>2.12</b> Concession agreements	P.225
<b>2.13</b> Leases	P.226
<b>2.14</b> Impairment of intangible assets other than goodwill and of property, plant and equipment	P.227
<b>2.15</b> Financial assets and liabilities	P.227
<b>2.16</b> Inventories and work-in-process	P.230
<b>2.17</b> Trade receivables	P.230
2.18 Cash and cash equivalents	P.230
<b>2.19</b> Equity	P.231
2.20 Treasury shares	P.231
2.21 Provisions	P.231
<b>2.22</b> Provisions for employee benefits	P.232
<b>2.23</b> Special concession liabilities	P.233
2.24 Investment subsidies	P.233
2.25 Environmental expenses	P.233
<b>2.26</b> Basic and diluted earnings per share	P.234
<b>2.27</b> Held-for-sale assets and liabilities and discontinued operations	P.234

The following accounting methods have been applied consistently through all the periods presented in the consolidated financial statements.

### **2.1** Valuation

The consolidated financial statements are based on historical cost valuation, with the exception of certain financial instruments and available-for-sale financial assets, which by convention are stated at fair value.

The methods used to determine the fair value of these instruments are presented in note 2.15.

### 2.2

### Management judgment and estimates

The preparation of the financial statements requires the use of judgments, best estimates and assumptions in determining the value of assets and liabilities, income and expenses recorded for the period, and positive and negative contingencies at year-end. The figures in future financial statements may differ from current estimates due to changes in these assumptions or economic conditions.

The principal sensitive accounting methods involving use of estimates and judgments are described below. Given their importance in the EDF Group's financial statements, the impact of any change in assumption in these areas could be significant.

### 2.2.1 Nuclear provisions

The measurement of provisions for the back-end nuclear cycle, decommissioning and last cores is sensitive to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules. A revised estimate is therefore established at each closing date to ensure that the amounts accrued correspond to the best estimate of the costs eventually to be borne by the Group. Any significant differences resulting from these revised estimates could entail changes in the amounts accrued.

These provisions amount to €30,484 million at December 31, 2007 (€28,713 million at December 31, 2006).

A change in the discount rate would be considered as a change in estimate in the same way as a change in disbursement schedule or contractor's quote, and the impacts would be recognized as follows:

- In the corresponding assets when the provision was initially covered by balance sheet assets:
- In the income statement in all other cases.

Such a change could have a significant impact on the consolidated financial statements.

# 2.2.2 Pensions and other long-term and post-employment benefits

The value of pensions and other long-term and post-employment benefit obligations is based on actuarial valuations that are sensitive to assumptions concerning discount rates and wage increase rates, and all the actuarial assumptions used.

These provisions amount to €13,763 million at December 31, 2007 (€13,928 million at December 31, 2006).

# 2.2.3 Impairment of goodwill and long-term assets

Impairment tests on goodwill and long-term assets are sensitive to the macro-economic and segment assumptions used, and medium-term financial forecasts. The Group therefore revises the underlying estimates and assumptions based on regularly updated information.

The net value of goodwill on subsidiaries and joint ventures is €7,266 million at December 31, 2007 (€7,123 million at December 31, 2006).

#### 2.2.4 Financial instruments

In measuring the fair value of unlisted financial instruments (essentially energy contracts), the Group uses valuation models involving a certain number of assumptions subject to uncertainty. Any change in those assumptions could have a significant impact on the financial statements.

### 2.2.5 Energy and delivery not yet metered

As explained in note 2.7, the quantities of energy delivered but neither measured nor billed are calculated at the reporting date based on consumption statistics and selling price estimates. These statistics and estimates are sensitive to the assumptions used in determining the portion of sales not billed at the closing date.



# 2.2.6 Valuation of obligations concerning French public distribution concession assets to be replaced

As mentioned in note 3, the Group has continued to apply the same accounting treatments as previously. In view of the specific nature of French public electricity distribution concessions, the Group has opted to present its obligation to renew property, plant and equipment in the balance sheet at a value consisting of the amount of contractual commitments as calculated and disclosed to the grantors in the annual business reports. An alternative approach would be to value the obligations based on the discounted value of future payments necessary for replacement of these assets at the end of their industrial useful life. The impacts this alternative approach would have had on the accounts are shown in note 3 for information. Whatever valuation method is used, measurement of the concession liability concerning assets to be replaced is notably subject to uncertainty in terms of cost and disbursement dates.

# **2.2.7** Transition tariff (*Tarif réglementé transitoire d'ajustement de marché* or *TARTAM*)

To assess the contribution payable by the Group in application of the transition tariff defined in the French Law of December 7, 2006, various assumptions have been used based on the best available information and forecasts, particularly regarding the numbers of customers applying to benefit from this tariff, developments in electricity market prices and the share of the compensation to be financed by the Contribution to the Public Electricity Service (Contribution au Service Public de l'Electricité or CSPE) at each reporting date.

### 2.2.8 Other management judgments

The use of estimates and assumptions is also particularly important in measuring the amounts of the Contribution to the Public Electricity Service (CSPE) receivable for the year, and in the recognition of deferred tax assets.

## 2.3 Consolidation methods

Subsidiaries are companies in which the Group has exclusive control and are fully consolidated. Exclusive control means the power to govern the enterprise's financial and operating policies either directly or indirectly so as to obtain benefit from its activities. Exclusive control is presumed when EDF directly or indirectly holds more than 50% of the voting rights. Voting rights that are potentially exercisable at the closing date, even by another party, are taken into consideration in determining the level of control over a subsidiary.

Joint ventures are companies that the Group jointly controls, and are proportionally consolidated on the basis of the Group's percentage interest. Joint control means sharing control over a company jointly operated by a limited number of partners or shareholders, such that the operating and financial policies result from their mutual agreement.

Associates are companies in which the Group exercises significant influence on the financial and operating policies without controlling the com-

pany. The Group is considered to exercise significant influence when it holds at least 20% of the consolidated company. Associates are accounted for under the equity method. They are carried in the balance sheet at historical cost adjusted for the share of net assets generated after acquisition, less any impairment. The Group's share in net income for the period is reported under the income statement heading "Share in income of companies accounted for under the equity method".

The results of companies acquired during the year are recognized in the Group's consolidated income statement from the date on which control is transferred, until control is transferred upon disposal.

All significant transactions between consolidated companies and unrealized internal profits are eliminated.

A list of subsidiaries, joint ventures and associates is presented in note 42.

### Financial statement presentation rules

Assets and liabilities of dissimilar natures or functions are disclosed separately.

Assets and liabilities contributing to working capital used in the entity's normal operating cycle are classified as current. Other assets and liabilities are classified as current if they mature within one year of the closing date, and non-current if they mature more than one year after the closing date.

Commitments by an EDF Group entity to purchase minority interests in a fully consolidated entity are reported under current or non-current "Other liabilities", with corresponding adjustments to goodwill and minority interests.

The income statement presents items by nature. The heading "Other income and expenses" presented below the operating profit before depreciation and amortization comprises items of an unusual nature or amount.

# 2.5

### **Translation methods**

### 2.5.1 Reporting currency

The Group's financial statements are presented in Euros, which is both the functional and reporting currency of EDF. All financial data are rounded up or down to the nearest million.

### 2.5.2 Functional currency

An entity's functional currency is the currency of the economic environment in which it primarily operates. In most cases, the local currency is the functional currency, but for some entities, a functional currency other than the local currency may be used provided it reflects the currency used in the principal transactions.

# 2.5.3 Translation of the financial statements of foreign companies whose functional currency is not the Euro

The financial statements of foreign companies whose functional currency is not the Euro are translated as follows:

- Balance sheets are translated into euros at the closing rate;
- Income statements and cash flows are translated at the average rate for the period;
- Resulting differences are recognized in equity under the heading "Translation adjustments".

Currency translation differences affecting a monetary item that is an integral part of the Group's net investment in a consolidated foreign company are included in consolidated equity until the disposal or liquidation of the net investment, at which date they are recognized as income or expenses in the income statement, in the same way as other translation adjustments concerning the company.

In preparing the balance sheet under IFRS at the transition date (January 1, 2004), in application of IFRS 1, translation differences resulting from the translation of a net investment in a foreign entity that were previously included in equity as "translation adjustments" were deemed to be zero and transferred to consolidated reserves.

# 2.5.4 Translation of transactions in foreign currencies

In application of IAS 21, transactions expressed in foreign currencies are initially translated and recorded in the functional currency of the entity concerned, using the rate in force at the transaction date.

At each reporting date, monetary assets and liabilities expressed in foreign currencies are translated at the closing rate. The resulting foreign exchange differences are taken to the income statement.



# 2.6

### **Related parties**

Related parties include the French State, companies in which the State holds majority ownership and certain of their subsidiaries, and companies in which EDF exercises joint control or significant influence. They also include members of the Group's management and governance bodies.

### 2.7 Sales

Sales essentially comprise income from the sale of energy and services, which mainly include energy transmission and distribution services, and capacity and interconnection auctions.

The Group accounts for sales when:

- A contract exists;
- Delivery has taken place (or the service provided);
- A quantifiable price has been established or can be determined;
- And the receivables are likely to be recovered.

Delivery takes place when the risks and benefits associated with ownership are transferred to the buyer. Energy delivered but not yet measured nor billed is calculated based on consumption statistics and selling price estimates.

Sales of goods and revenues on services not completed at the balance sheet date are valued by reference to the stage of completion at that date.

Energy trading operations are recognized net of purchases.

The fees paid by customers upon connection to the network (connection fees) are recorded as deferred income and transferred to sales over a period that depends on the useful life of the assets they contribute to finance, or the estimated term of customer contracts.

### 2.8

### **Income taxes**

Income taxes include the current tax expense (income) and the deferred tax expense (income), calculated under the tax legislation in force in the countries where earnings are taxable.

Current and deferred taxes are recorded in the income statement, or in equity if they concern items directly allocated to equity.

The current tax expense (income) is the estimated amount of tax due on the taxable income for the period, calculated using the tax rates adopted at the year-end. Deferred taxes result from temporary differences between the book value of assets and liabilities and their tax basis. No deferred taxes are recognized for temporary differences generated by:

- Goodwill which is not tax deductible;
- The initial recognition of an asset or liability in a transaction which is not a business combination and does not affect the accounting profit or taxable profit (tax loss) at the transaction date;
- Investments in subsidiaries, joint ventures and associates, when the Group controls the timing of reversal of the temporary differences, and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are valued at the expected tax rate for the period in which the asset will be realized or the liability settled, based on tax rates adopted at the year-end. If the tax rate changes, deferred taxes are adjusted to the new rate and the adjustment is recorded in the income statement, unless it relates to an underlying for which changes in value are recorded in equity, for example hedging instruments and available-for-sale financial assets.

Deferred taxes are reviewed at each closing date, to take into account changes in tax legislation and the prospects for recovery of deductible temporary differences. Deferred tax assets are only recognized when it is probable that the Group will have sufficient taxable profit to utilize the benefit of the asset in the foreseeable future, or beyond that horizon, if there are deferred tax liabilities with the same maturity.

# 2.9

### **Goodwill and business combinations**

Business combinations are recognized under the purchase method defined in IFRS 3. Purchase cost is the fair value of the assets transferred, liabilities incurred or assumed and equity instruments issued by the purchaser at the acquisition date, plus costs directly attributable to the purchase

### 2.9.1 Determination of goodwill

Goodwill corresponds to the difference between the cost of a business combination and the Group's share in the fair value of the identifiable assets, liabilities and contingent liabilities of the company acquired on the date control is transferred. When the difference is negative, it is immediately included in the income statement.

The fair values of assets and liabilities and the resulting goodwill are finalized within 12 months of the acquisition.

When minority interests are acquired in a subsidiary that is already fully consolidated, the Group records goodwill equal to the difference between the acquisition price for the minority shareholdings and the share of net assets acquired, with no revaluation of the assets and liabilities acquired.

If minority interests are acquired in an associate without full control resulting, the Group continues to carry the assets and liabilities acquired previously at the same value in the consolidated financial statements.

## 2.9.2 Measurement and presentation of goodwill

Goodwill related to companies acquired prior to January 1, 2004 was presented in the balance sheet net of any amortization, under the option allowed by IFRS 1.

Goodwill on acquisition of subsidiaries or joint ventures is disclosed separately in the balance sheet. Impairment on this goodwill is reported under the heading "Impairments", in the income statement.

Goodwill on acquisition of associates is included in the investment's net book value. Impairment on this goodwill is included under the heading "Share in income of companies accounted for under the equity method".

After initial recognition, goodwill is carried at cost less any impairment recognized.

Goodwill is not amortized, but impairment tests are carried out as soon as there is an indication of possible loss of value, and at least annually.

For the purposes of this test, goodwill is allocated to cash-generating units, groups of homogeneous assets that generate identifiable cash flows benefiting from synergies resulting from the acquisition. The Group's cash-generating units comprise either subgroups or legal entities, broken down where necessary by activity (generation and supply, distribution, transmission, other).

The recoverable value of these units is the higher of fair value net of disposal costs, and value in use. Value in use is determined with reference to discounted future net cash flows based on medium-term financial projections, as described in note 2.14. When this recoverable value is lower than the carrying amount in the balance sheet, an amount equal to the difference is booked under the heading "Impairment". The loss is allocated first to the goodwill, and any surplus to the other assets of the cash-generating unit concerned.

Upon partial or total disposal of a Group entity, the share of goodwill attributable to that entity is included in the gain or loss on disposal.



### **2.10** Other intangible assets

Other intangible assets mainly consist of software, licenses, trademarks and similar rights, operating rights and development costs. These assets are amortized on a straight-line basis over their useful lives, which are generally between 1 and 5 years.

Other intangible assets also include greenhouse gas emission quotas purchased, which are not amortized.

### 2.10.1 Research and development expenses

Research expenses are recognized as expenses in the financial period incurred.

Development expenses are recognized as an intangible asset if the Group can demonstrate:

- The technical feasibility of making the intangible asset ready for commissioning or sale;
- Its intention to complete the intangible asset and use or sell it;
- Its ability to use or sell the intangible asset;
- How the intangible asset will generate likely future economic benefits;
- The availability of the appropriate resources (technical, financial or other) to complete development and use or sell the intangible asset;
- Its ability to provide a reliable estimate of expenses attributable to the intangible asset during its development.

### 2.10.2 Greenhouse gas emission quotas

The Group applies the following treatment to greenhouse gas emission quotas:

- Emission quotas purchased are recorded as intangible assets at acquisition cost; when the emission rights have been granted for nil consideration by the relevant State under the National Allocation Plan, they are not shown in the balance sheet;
- When a Group entity's actual or forecast emissions are higher than the
  quotas allocated by the State and still held under the relevant period of
  the National Allocation Plan, a provision is recorded to cover the excess
  emissions. This provision is equivalent to the acquisition cost up to the
  amount acquired on the spot or forward markets, and based on market prices for the balance.

The provision is cancelled when quotas are surrendered to the State.

Forward purchases and sales of quotas carried out as part of trading activities are recorded in compliance with IAS 39 and stated at fair value at the balance sheet date. Changes in fair value are taken to the income statement.

# **2.11** Concession assets, generation assets and other property, plant and equipment

As of January 1, 2007, the Group's property, plant and equipment are reported under three balance sheet headings, as appropriate to the business and contractual circumstances of their use (see notes 3 and 4):

- Property, plant and equipment operated under French public electricity distribution concessions;
- Property, plant and equipment operated under concessions for other activities;
- Property, plant and equipment used in generation and other tangible assets owned by the Group.

#### 2.11.1 Initial measurement

Property, plant and equipment are recorded at acquisition or production cost.

The cost of facilities developed in-house includes all labor and materials costs, and all other production costs attributable to the construction cost of the asset.

The Group capitalizes safety expenses incurred as a result of legal and regulatory obligations, where non-compliance is sanctioned by administrative prohibition on operation.

The cost of property, plant and equipment also includes decommissioning costs for generation plants, and last core costs for nuclear facilities. These assets are associated with the provisions recorded to cover these obligations. At the date of commissioning, these assets are measured and recorded in the same way as the corresponding provision (see note 2.21). The following components are thus included in the balance sheet value of property, plant and equipment:

- The discounted cost of decommissioning the facilities;
- For nuclear facilities, the discounted cost of last core nuclear fuel, including depreciation of residual reactor fuel that will not be fully irradiated when production shuts down, the cost of nuclear fuel reprocessing and the cost of removing and storing waste from these operations.

Strategic safety spare parts for nuclear facilities are treated as property, plant and equipment, and depreciated pro rata with the useful life of the facilities to which they are assigned.

The costs of the statutory ten-year inspections of nuclear and fossil-fired power plants are a component of the cost of these facilities, which is amortized over the time elapsing between two inspections.

Pre-operating expenses and borrowing costs incurred to finance installations are recognized as expenses.

### 2.11.2 Depreciation

Property, plant and equipment are depreciated on a straight-line basis over their useful life, defined as the period during which the Group expects to draw future economic benefits from their use. The estimated useful lives for the principal facilities are the following:

- Hydroelectric dams: 75 years
- Electromechanical equipment used in hydropower plants: 50 years
   Fossil-fired plants: 30 to 45 years
- Nuclear power plants: 40 years (\*)
- Transmission and distribution installations
  (lines, substations): 20 to 45 years

(\*) More restrictive regulations may apply in some countries.

Following reviews of most assets related to the French public electricity distribution concessions, some useful lives have been modified (see note 3.2.4).

### 2.12

### **Concession agreements**

### 2.12.1 Accounting treatment

The EDF Group records public/private agreements in compliance with standards and interpretations IAS 16, IAS 17, IAS 18, IAS 37, IFRS 6 and IFRIC 4 as appropriate to the specific features of those agreements (see note 3 concerning IFRIC 12).

#### 2.12.2 French concessions

In France, the Group is the operator for three types of public service concessions:

- Public electricity distribution concessions in which the grantors are local authorities (municipalities or syndicated municipalities);
- Hydropower concessions with the State as grantor;
- The French public transmission network, operated under concession from the French State by the subsidiary *RTE EDF Transport* (fully consolidated as of January 1, 2005).

#### - Public electricity distribution concessions

Assets attributed to these concessions are recorded under "Property, plant and equipment operated under French public electricity distribution concessions" at acquisition cost or their estimated value at the transfer date when supplied by the grantor.

Note 3 contains further details on this treatment and the concession liabilities.

The transfer of EDF's distribution activities in mainland France to a subsidiary (see note 5.1.1.2) has no impact on the concession agreements.

#### - Hydropower concessions

Assets attributed to the hydropower concessions are hydropower generation equipment (dams, pipes, turbines, etc) and, in the case of

recently renewed concessions, also include electricity generation equipment (alternators, etc).

Article 7 of the French Law 2006-1772 of December 30, 2006 on water and aquatic environments removed the outgoing operator's preferential right instituted by the Law of October 16, 1919.

Article 33 of French Law 2006-1771 of December 30, 2006, amending the 2006 finance law, sets out the principle of an indemnity for the outgoing operator in respect of the unamortized portion of investments made during the second half of execution of the agreement (the final 10 years at least), with the exception of investments required to return the assets in good condition at the end of the concession. The decree stipulating how this principle should be applied had not yet been published at December 31, 2007.

Assets used in these concessions are recorded under "Property, plant and equipment operated under concessions for other activities" at acquisition cost.

#### - French public transmission concession

The French transmission concession dates from 1956, for a 75-year term. Since the French Law of February 10, 2000, the public electricity transmission network has been operated by an independent entity within EDF. This service was transferred to a fully-consolidated subsidiary named *RTE EDF Transport*, with effect from January 1, 2005.

A new set of standard rules for the public transmission concession was approved by decree 2006-1731 of December 23, 2006. The concession agreement between the French State and *RTE EDF Transport*, which will contain these rules, had not yet been finalized at December 31, 2007.

The assets operated under this concession belong by law to *RTE EDF Transport*. They are recorded under "Property, plant and equipment operated under concessions for other activities".



### 2.12.3 Foreign concessions

The rules governing concessions outside France vary according to the national contracts and legislations. The principal countries concerned are:

#### - United Kingdom

EDF Energy owns public electricity distribution networks. It has a monopoly on the geographical area covered by its license, and the network can be sold at fair value. Licenses may be terminated in the event of breach of obligations, subject to 25 years' notice.

Assets used in these concessions are recorded under "Property, plant and equipment operated under concessions for other activities".

#### - Germany

The distribution networks operated under concession by EnBW belong to EnBW for the duration of the concession. In the event that the concession is not renewed, EnBW may transfer the network at fair value or at amortized replacement value.

Assets used in these concessions are recorded under "Property, plant and equipment operated under concessions for other activities".

#### - Italy

Edison operates hydrocarbon generation sites, gas storage sites, local gas distribution networks and hydropower generating plants under concessions. It owns all the assets except for some items of property, plant and equipment on the hydropower generation sites, such as pipes, which are transferable for nil consideration upon expiry of the concession.

The concession assets are recorded under "Property, plant and equipment operated under concessions for other activities", with the exception of prospecting rights and expenses associated with discovery of specific mineral resources related to hydrocarbon generation sites, which are classified as intangible assets.

They are depreciated over their useful life, and the following procedures apply:

- Hydropower generation assets which will be returned for nil consideration at the end of the concession are depreciated over the duration of the concession;
- Assets related to the hydrocarbon concessions are amortized under the production unit method;
- Expenses associated with discovery of specific mineral resources are amortized over the year.

### **2.13** Leases

In the course of its business, the Group uses assets made available under lease contracts. These contracts are analyzed in the light of the situations described and indicators supplied in IAS 17, in order to determine whether they are finance leases or operating leases.

#### 2.13.1 Finance leases

Lease agreements that effectively transfer virtually all the risks and benefits incident to ownership of the leased assets to the Group are classified as finance leases. The main criteria examined in determining whether virtually all the risks and benefits are transferred by an agreement are the following:

- The ratio of the leased assets' actual useful life to their economic life;
- $\bullet$  Total future payments as a ratio of the fair value of the financed asset;
- Whether ownership is transferred at the end of the lease;
- Whether the purchase option is attractive;
- The features specific to the leased asset.

Finance-leased assets are reported under the relevant asset headings, with recognition of a corresponding financial liability: they are depreciated over their useful life, or over the term of the corresponding lease agreement when this is shorter.

If the Group performs a sale and leaseback operation resulting in a finance lease agreement, this is recognized in accordance with the principles described above. If the transfer price is higher than the asset's book value, the surplus is deferred and recognized as income progressively over the term of the lease.

### 2.13.2 Operating leases

Lease agreements that do not qualify as finance leases are classified and recognized as operating leases.

Payments made in application of these agreements are included in expenses in the income statement.

### 2.13.3 Arrangements containing a lease

In compliance with interpretation IFRIC 4, the Group identifies agreements that convey the right to use an asset or group of specific assets to the purchaser although they do not have the legal form of a lease contract, as the purchaser in the arrangement benefits from a substantial share of the asset's production and payment is not dependent on production or market price.

Such arrangements are treated as leases, and analyzed with reference to IAS 17 for classification as either finance or operating leases.

# Impairment of intangible assets other than goodwill and of property, plant and equipment

At the year-end and at each interim reporting date, the Group assesses whether there is any indication that an asset could have been significantly impaired. If so, an impairment test is carried out as follows:

- The Group measures any long-term asset impairment by comparing the carrying value of these assets, classified into cash-generating units where necessary, and their recoverable amount, usually determined using the discounted future cash flow method;
- The discount rates used for these purposes are based on the weighted average cost of capital for each asset or group of assets concerned, determined by economic and geographical area and by business segment where appropriate. The pre-tax discount rate is calculated using an iterative process based on after-tax rates;
- Future cash flows are based on medium-term plan projections over three years. Variables that can significantly affect the calculations are:
- changes in tariff regulations and market prices,
- changes in interest rates and market risk premiums,
- market levels and market share on offers, and the level of investment,
- the useful lives of facilities, and the plan for concession renewal,
- the growth rates used beyond the medium-term plans and the terminal values taken into consideration.

This impairment test is based on business plans and assumptions approved by the Group.

# 2.15

### Financial assets and liabilities

Financial assets include investments (non-consolidated investments, dedicated assets, and other investment securities), loans and financial receivables, and the positive fair value of derivatives.

Dedicated assets are financial assets intended to finance end of nuclear cycle operations, for which provisions have been accrued (see note 24.3.2.1 and 31.5). These assets are managed separately from the Group's other financial assets and investments in view of their specific objective, and comprise bonds, equities, collective investment funds and "reserved" funds built up by the Group solely for its own use.

Financial liabilities comprise financial borrowings and debts, bank credit and the negative fair value of derivatives.

Financial assets and liabilities are recorded in the balance sheet as current if they mature within one year and non-current if they mature after one year, apart from derivatives held for trading, which are all classified as current.

Operating debts and receivables, and cash and cash equivalents, are governed by IAS 39 and reported separately in the balance sheet.

## 2.15.1 Classification and valuation methods for financial assets and liabilities

Financial instruments are classified as follows under IFRS 7:

- Financial assets and liabilities carried at fair value with changes in fair value included in income;
- Held-to-maturity financial assets;
- Loans and financial receivables;

- Available-for-sale financial assets;
- Trade receivables:
- Cash and cash equivalents;
- Financial debts and operating debts.

### 2.15.1.1 FINANCIAL ASSETS AND LIABILITIES CARRIED AT FAIR VALUE WITH CHANGES IN FAIR VALUE INCLUDED IN INCOME

Financial assets stated at fair value with changes in fair value included in the income statement are classified as such at the inception of the operation. This applies to:

- Assets acquired from the outset with the intention of resale in the short term:
- Or derivatives not classified as hedges (derivatives held for trading);
- Or assets the Group has elected to include in this category under the option allowed by IAS 39.

These assets are recorded at the transaction date at acquisition cost including purchasing expenses, and subsequently adjusted to fair value at each reporting date. Fair value is based on quoted prices and market data available from external sources for listed instruments, or by the discounted cash flow method for unlisted instruments.

Changes in fair value are recorded in the income statement under the heading "Other financial income and expenses".

Dividends and interest received on assets stated at fair value are recorded in the income statement under "Other financial income".

Changes in the fair value of commodity trading contracts are recorded in the income statement under "Sales".



Regarding the fair value option, the Group classifies an asset or liability as "at fair value through profit or loss" in the three following circumstances:

- (1) When using fair value eliminates or significantly reduces an inconsistency in the measurement of assets and liabilities ("accounting mismatch"):
- (2) When the performance of a group of financial assets or financial liabilities is managed on a fair value basis, in accordance with documented strategies and the management reporting system;
- (3) When a financial instrument contains an embedded derivative.

  If a contract contains one or more embedded derivatives, the hybrid instrument may also be valued under the fair value option, except in the following two cases:
  - When the embedded derivative does not substantially affect the cash flows of the contract:
  - When analysis of the host contract and the embedded derivative does not lead to separate measurement of the embedded derivative.

#### 2.15.1.2 HELD-TO-MATURITY FINANCIAL ASSETS

This category covers fixed-term investments which the Group acquires with the intent and ability to hold to maturity. They are recorded at amortized cost at the transaction date. Interest is calculated at the effective interest rate and recorded in the income statement under the heading "Other financial income and expenses".

#### 2.15.1.3 LOANS AND FINANCIAL RECEIVABLES

Loans and financial receivables are valued and recorded at the transaction date, at amortized cost less any impairment or provision.

Interest is calculated at the effective interest rate and recorded in the income statement under the heading "Other financial income and expenses".

#### 2.15.1.4 AVAILABLE-FOR-SALE FINANCIAL ASSETS

Available-for-sale financial assets comprise non-consolidated investments, reserved funds and investment securities. They are recorded at acquisition cost at the transaction date, and adjusted to fair value at closing date.

Fair value measurement is based on quoted prices and market data available from external sources for instruments listed on an active market, and on the discounted cash flow method for other financial instruments. When a fair value cannot be reliably estimated by other accepted valuation methods such as discounting future cash flows, these instruments are valued at acquisition cost less any accumulated impairment.

Unrealized gains or losses on these assets are recorded in equity, unless there is evidence of a realized loss, in which case impairment is recognized (see note 2.15.2).

For available-for-sale financial assets represented by debt securities, interest is calculated at the effective interest rate and credited to the income statement under the heading "Other financial income and expenses".

#### 2.15.1.5 FINANCIAL DEBTS AND OPERATING DEBTS

Financial debts are recorded at amortized cost, with separate reporting of embedded derivatives where applicable. Interest is calculated at the effective interest rate and recorded under the heading "Cost of gross financial indebtedness" over the duration of the financial debt. The fair value of the

debt is calculated by discounting future cash flows at market rates.

#### 2.15.1.6 DERIVATIVES

#### 2.15.1.6.1 SCOPE

The scope of derivatives applied by the Group corresponds to the principles set out in IAS 39.

In particular, forward purchases and sales for physical delivery of energy or commodities are considered to fall outside the scope of application of IAS 39, when the contract concerned is considered to have been entered into as part of the Group's normal business activity. This is demonstrated to be the case when all the following conditions are fulfilled:

- A physical delivery takes place under all such contracts;
- The volumes purchased or sold under the contracts correspond to the Group's operating requirements;
- The contracts cannot be considered as options as defined by the standard. In the specific case of electricity sale contracts, the contract is substantially equivalent to a firm forward sale or can be considered as a capacity sale.

The Group thus considers that transactions negotiated with a view to balancing the volumes between electricity purchase and sale commitments are part of its business as an integrated electricity company, and do not therefore come under the scope of IAS 39.

In compliance with IAS 39, the Group analyses all its contracts, of both a financial and non-financial nature, to identify the existence of any "embedded" derivatives. Any component of a contract that affects the cash flows of that contract in the same way as a stand-alone derivative corresponds to the definition of an embedded derivative.

If they meet the conditions set out by IAS 39, embedded derivatives are accounted for separately from the host contract at inception date.

#### 2.15.1.6.2 MEASUREMENT AND RECOGNITION

Derivatives are initially recorded at fair value, based on quoted prices and market data available from external sources. The Group may also refer to recent comparable transactions or base its valuation on internal models that are recognized by market participants and include data directly derived from this observable data, such as over-the-counter listings.

Changes in the fair value of these derivatives are recorded in the income statement, unless they are classified as hedges for a cash flow or net investment. Changes in the fair value of such hedging instruments are recorded directly in equity, excluding the ineffective portion of the hedge. In the specific case of financial instruments entered into as part of EDF Trading's business, realized and unrealized gains and losses are reported net under the heading "Sales".

#### 2.15.1.6.3 FINANCIAL INSTRUMENTS CLASSIFIED AS HEDGES

The EDF Group uses derivative instruments to hedge its foreign exchange and interest rate risks, as well as risks related to certain commodity contracts.

The Group applies the criteria defined by IAS 39 in classifying derivatives as hedges:

- (1) the instrument must hedge changes in fair value or cash flows attributable to the risk hedged, and the effectiveness of the hedge (i.e. the degree to which changes in the value of the hedging instrument offset changes in the value of the hedged item or future transaction) must be between 80% and 125%;
- (2) in the case of cash flow hedges, the future transaction being hedged must be highly possible;
- (3) reliable measurement of the effectiveness of the hedge must be possible;
- (4) the hedge must be supported by appropriate documentation from its inception.

The Group classifies hedges in the following categories:

#### (a) fair value hedges

These instruments hedge the exposure to changes in the fair value of an asset or liability recorded in the balance sheet, or a firm commitment to purchase or sell an asset. Changes in the fair value of the hedged item attributable to the hedged component of that item are recorded in the income statement and offset by corresponding variations in the fair value of the hedging instrument. Only the ineffective portion of the hedge has an impact on income.

#### (b) cash flow hedges

These instruments hedge highly probable future transactions: the variability in cash flows generated by the hedged transaction is offset by changes in the value of the hedging instrument.

The effective portion of accumulated changes in the hedge's fair value is recorded in equity, and the ineffective portion (i.e. changes in the fair value of the hedging instrument in excess of changes in the fair value of the hedged item) is recorded in the income statement.

When the hedged cash flows materialize, the amounts previously recognized in equity are transferred to the income statement in the same way as for the hedged item.

#### (c) hedges of a net investment

These instruments hedge exposure to the foreign exchange risk related to a net investment in a foreign entity. The effective portion of accumulated changes in the hedge's fair value is recorded in equity until disposal of the net investment, when it is included in the gain or loss on disposal. The ineffective portion (defined in the same way as for cash flow hedges) is recorded directly in the income statement.

The hedging relationship ends when:

- A derivative instrument ceases to be an effective hedging instrument;
- A derivative instrument expires, or is sold, terminated or exercised;
- The hedged item expires, is sold or redeemed;
- A future transaction ceases to be considered as highly probable.

Only derivative instruments external to the Group qualify for hedge accounting, and gains or losses on internal derivatives are eliminated in the consolidated financial statements. However, in a cash flow hedging relationship initiated via derivatives internal to the Group, hedge accounting is applied if it can be demonstrated that the internal derivatives will be matched with similar transactions external to the Group.

The Group records the change in fair value resulting from the interest rate effect of derivatives hedging a net investment in a foreign operation in equity in the same way as the change in value resulting from foreign exchange differences.

#### 2.15.2 Impairment of financial assets

At the year-end and at each interim reporting date, the Group assesses whether there is any objective evidence that an asset could have been significantly impaired. If so, the Group estimates the asset's recoverable value and records any necessary impairment as appropriate for the category of asset concerned.

#### 2.15.2.1 FINANCIAL ASSETS RECORDED AT AMORTIZED COST

Impairment is equal to the difference between the asset's net book value and the discounted value of expected future cash flows, using the original effective interest rate of the financial instrument. The impairment is included in the income statement under the heading "Other financial expenses". If the impairment loss decreases in a subsequent period, it is reversed and transferred to the income statement.

#### 2.15.2.2 AVAILABLE-FOR-SALE FINANCIAL ASSETS

If there is a significant long-term decrease in the fair value of available-for-sale financial assets, the unrealized loss is reclassified from equity to income. If, in a subsequent period, the fair value of an available-for-sale financial asset increases, the increase in value is recorded in equity for equity instruments, while for debt instruments the impairment previously recorded is reversed and transferred to the income statement.

# **2.15.3** Derecognition of financial assets and liabilities

Derecognition is applied for all or part of:

- A financial asset, when the contractual rights making up the asset expire, or the Group substantially transfers most of the significant risks and benefits associated with ownership of the asset;
- A financial liability, when the liability is extinguished due to cancellation or expiry of the obligation. When a debt is renegotiated with a lender giving rise to substantially different terms, a new liability is recognized.

### 2.15.4 Securitization operations

When it can be demonstrated that the Group does not control the investment funds resulting from securitization operations, these are excluded from the scope of consolidation. Otherwise, an entry corresponding to the cash inflow is recorded under the heading "Other liabilities".



### Inventories and work-in-process

Inventories are recognized at the lower of acquisition cost or net realizable value, except for inventories resulting from trading activities, which are carried at market value.

Cost includes all direct material costs, labor costs, and a share of indirect production costs.

#### 2.16.1 Nuclear fuel and materials

Inventories of nuclear fuel and materials comprise fissile materials in various stages of production, and fuel in the reactor and stored. The processing cycle for nuclear fuels is longer than one year.

The stated value of nuclear fuel and materials and work-in-progress is determined based on direct processing costs including materials, labor and subcontracted services (e.g. fluoration, enrichment, etc.).

At December 31, 2007, in keeping with the new notion of "loaded fuel" as defined in the decision of March 21, 2007, in France, the cost of inventories for fuel in reactors but not yet irradiated includes expenses for spent fuel management and long-term radioactive waste management. The corresponding amounts are taken into account in the relevant provisions.

Interest expenses incurred in financing inventories of nuclear fuels are charged to expenses for the period.

Nuclear materials, whatever their form during the processing cycle, whose useful lives are longer than one year, and nuclear fuel, whether being used in the reactors or stored, are recorded in inventories.

These items are valued using the weighted average cost method, applied to each component (natural uranium, fluoration, enrichment, production)

The Group does not value the uranium obtained from reprocessed fuel, due to uncertainty over its future use.

Nuclear fuel consumption is determined for each component based on forecasts of quantities used per kWh produced. These quantities are valued at weighted average cost of inventories.

Inventories are periodically corrected in view of forecast spent quantities based on neutronic measurements.

# 2.16.2 Consumables, materials and spare parts

Inventories are valued at weighted average cost including direct and indirect purchasing costs.

Provisions concerning spare parts supplied under a maintenance program are based on the turnover of these parts and the useful lives of generation units

### **2.17** Trade receivables

On initial recognition, trade receivables are stated at the fair value of the consideration received or to be received. A provision is recorded when their carrying amount, based on the probability of recovery assessed according to the type of receivable, is less than their book value. Depending on the nature of the receivable, the risk associated with

doubtful receivables is assessed individually or by experience-based statistical methods

Trade receivables also include revenue based on an estimate of power already delivered but neither measured nor billed. A provision is booked to cover the potential risk of subsequent non-recovery.

# 2.18 Cash and cash equivalents

Cash and cash equivalents comprise very liquid assets and very short-term investments, usually maturing within three months or less of the acquisition date, and with negligible risk of fluctuation in value.

Securities held short-term and classified as cash equivalents are recorded at fair value, with changes in fair value included in the heading "Financial income on cash and cash equivalents".

# **2.19** Equity

## 2.19.1 Restatement to fair value of financial instruments

The impact of restatement to fair value of financial instruments results from the adjustment to fair value of available-for-sale financial assets and certain hedging instruments.

### 2.19.2 Share issue expenses

Share issue expenses correspond exclusively to external costs expressly related to the capital increase. They are charged against the issue premium at their net-of-tax value.

Other expenses are classified as expenses of the period.

## **2.20** Treasury shares

Treasury shares are shares issued by the consolidating company and held either by that company or by other entities in the consolidated group. They are valued at acquisition cost and deducted from equity until the

date of disposal. Income or losses on disposals of treasury shares are directly included in equity and do not affect net income.

## 2.21 Provisions

The Group recognizes provisions if the following three conditions are met:

- The Group has a present obligation (legal or constructive) towards a third party that arises from a past event prior to the closing date;
- It is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- The obligation amount can be estimated reliably.

Provisions are determined based on the Group's estimate of the expected cost necessary to settle the obligation. Estimates are based on management data from the information system, assumptions adopted by the Group, and if necessary experience of similar transactions, or in some cases based on independent expert reports or contractor quotes. The various assumptions are reviewed for each closing of the accounts.

If it is anticipated that all or part of the expenses covered by a provision will be reimbursed, the reimbursement is recognized under receivables if and only if the Group is virtually certain of receiving it.

It may very rarely happen that a provision cannot be booked due to lack of a reliable estimate. In such cases, the obligation is mentioned in the notes as a contingent liability, unless there is little likelihood of an outflow of resources.

Provisions mainly cover the following:

- Back-end nuclear cycle expenses: provisions for spent fuel management and long-term radioactive waste management are booked for all fuels currently in use (spent portion) or already used.
- In France, the law requires provisions to be established to cover all fuel in reactors, whether or not it has been irradiated. The expenses related to long-term management of radioactive waste resulting from decommissioning of nuclear plants must also be covered by these provisions;
- Costs of decommissioning power plants and costs relating to fuel in the reactor when the reactor is shut down (provision for last cores);
- Future losses relating to multi-year agreements for the purchase and sale of energy:
- Losses on energy purchase agreements are measured by comparing the acquisition cost under the contractual terms with the forecast market price for electricity.
- Losses on energy sale agreements are measured by comparing the estimated income under the contractual terms with the cost of generating the energy to be supplied.



Provisions to cover back-end nuclear cycle expenses, expenses related to the decommissioning of power plants and last cores, and future losses relating to multi-year energy purchase and sale agreements are estimated by applying a forecast long-term inflation index to the projected disbursements, which are then discounted at rates that reflect the best estimate of a long-term rate of return on bond markets.

The rate of inflation and the discount rate are based on the economic parameters of the country where the economic entity is located.

For France, the Group applies a discount rate determined based on long series data for a sample of bonds, and takes into account the fact that some expenses covered by provisions will be disbursed over periods significantly longer than the duration of instruments generally traded on the financial markets.

The discount effect generated at each closing to reflect the passage of time is recorded under "Discount expense" in financial expenses.

The impact of changes in estimates for long-term provisions with associated balance sheet assets, whether due to schedule changes, discount rate changes, new expense estimates or technological developments, is allocated to the relevant assets, with any excess allocated to the underlying asset (power plant). Each one of these parameters, taken singly or together, could have a considerable impact on the estimates over time.

### 2.22

### **Provisions for employee benefits**

EDF Group employees are entitled to benefits both during and after their employment, depending on local regulations and certain specific rules such as the statutory regulations for companies governed by the special pension system for the electricity and gas sector (IEG) in France.

# 2.22.1 Pension and post-employment benefit obligations

When they retire, Group employees benefit from pensions determined under local rules. They may also be entitled to benefits directly paid by the companies, and additional benefits prescribed by the relevant regulations.

All the obligations of EDF and the French subsidiaries governed by the Electricity and Gas sector (IEG) regime are described in note 31.6.2.2.

### 2.22.2 Other long-term benefit obligations

These benefits concern employees currently in service, and are earned according to local regulations, particularly the statutory regulations for the electricity and gas sector for EDF and French subsidiaries covered by the IEG regime. Details are provided in note 31.6.3.

# 2.22.3 Calculation and recognition of employee benefits

Obligations under defined-benefit plans are calculated by the projected unit credit method, which determines the present value of entitlements earned by employees at year-end to pensions, post-employment benefits and long-term benefits, taking into consideration each country's specific economic conditions and expected wage increases.

In calculating pensions and other post-employment benefit obligations, this method takes the following factors into consideration:

- Career-end salary levels, with reference to employee seniority, projected salary levels at the time of retirement based on the expected effects of career advancement, and estimated trends in pension levels;
- Retirement age, determined on the basis of relevant factors (such as years of service and number of children);
- Forecast numbers of pensioners, determined based on employee turnover rates and mortality data available in each country;
- Reversion pensions, taking into account both the life expectancy of the employee and his/her spouse and the marriage rate observed for the population of employees in the electricity and gas sector;
- A discount rate that depends on the geographical zone and the duration of the obligations.

The provision takes into account the value of the assets that cover the pension obligations, which are deducted from the value of the obligation as determined above.

Any actuarial gains or losses on pensions and post-employment benefit obligations in excess of 10% (the "corridor") of the obligations or fund assets, whichever is the higher, are recognized in the income statement progressively over the average residual working life of the company's employees.

In preparing the opening balance sheet under IFRS at the transition date (January 1, 2004), in application of IFRS 1, actuarial gains and losses on employee benefits that were previously unrecognized under the "corridor" approach were included in the "provision for post-employment benefits" at January 1, 2004, and the corresponding adjustment was recognized in consolidated reserves.

In accordance with the applicable accounting regulations, the provision for other long-term benefits is calculated under a simplified method. Therefore, if an actuarial estimation under the projected unit credit method is necessary, any actuarial variances and the past service cost are directly included in the provision, without application of the "corridor" rule.

The expense booked for employee benefit obligations includes:

- The cost of additional vested benefits, and the financial discount cost of existing benefits:
- The income corresponding to the expected return on plan assets;
- The income or expenses resulting from amortization of actuarial gains losses:
- The income or expenses related to changes in the benefit systems or introduction of new systems.

### 2.22.4 Share-based payments

Under existing legislation in France, employees of a French group may benefit from attribution of shares. When the State sells some of the capital of a public company, article 11 of the French privatization Law of 1986 and article 26 of the Law of August 9, 2004 require a share offer to be reserved for current and retired employees of the company. The company being privatized may also set up free share plans.

In the light of IFRS 2, these benefits granted to employees - and former

employees – must be treated by the company as personnel expenses in the same way as additional remuneration, and recognized as such with a corresponding adjustment in equity.

Valuation of the benefit granted through a share offer reserved for current and retired employees is based on the difference between the share subscription price and the share price at the grant date, with actuarial valuation of the impact, if any, of the payment terms, the minimum holding period, and the fact that no dividends were received during the vesting period for the free shares.

In the case of free shares, the value of the benefit is based on the share price at the grant date, depending on the number of shares granted and the fact that no dividends were received during the vesting period. The expense is spread over the vesting period.

## 2.23

### **Special concession liabilities**

These liabilities relate to public electricity distribution concessions in France. They represent the contractual obligations defined in the concession rules, and are described in detail in note 3.

From January 1, 2007, the "Special concession liabilities" heading in the balance sheet is broken down into two categories (see notes 3 and 32):

- The grantor's interest in existing public distribution concession assets, representing the share deemed to be financed by the grantor, corresponding to the public distribution concession assets in the balance sheet assets;
- And the grantors' interest in public distribution concession assets to be replaced.

### 2.24

### **Investment subsidies**

Investment subsidies received by Group companies are included in liabilities under the heading "Other liabilities" and transferred to income as and when the economic benefits of the corresponding assets are utilized.

# 2.25

### **Environmental expenses**

Environmental expenses are identifiable, additional expenses incurred to prevent, reduce or repair damage to the environment that has been or may be caused by the Group as a result of its business. These expenses are recorded under three headings:

- They are capitalized if they are incurred to prevent or reduce future damage or preserve resources;
- They are booked as environmental liabilities and as allocations to provisions for environmental risks if they correspond to an obligation that exists at the year-end and it is probable or certain at the reporting date
- that they will lead to an outflow of resources to the benefit of a third party, with no equivalent or greater benefit expected from that party subsequent to the year-end;
- They are recognized as expenses if they are operating expenses for the bodies in charge of environmental concerns, environmental supervision, environmental duties and taxes, processing of liquid and gas effluents and non-radioactive waste, or research unrelated to an investment.



### Basic and diluted earnings per share

Earnings per share is calculated by dividing the Group's share of net income by the weighted average number of shares outstanding over the period. This weighted average number of shares outstanding is the number of ordinary shares at the start of the year, adjusted by the number of shares redeemed or issued during the year.

This number, and the earnings per share, is adjusted whenever necessary to reflect the impact of translation or exercise of dilutive potential shares (options, subscription warrants and convertible bonds issued, etc.).

# 2.27

### Held-for-sale assets and liabilities and discontinued operations

Assets and liabilities held for sale are disclosed separately from other assets and liabilities in the balance sheet. All income from discontinued operations is disclosed in a single net amount after taxes in the income statement.

### Note

# 3

# Public electricity distribution concessions in France and concession agreements for other activities



**3.1** IFRIC 12 P.234

**3.2** Specific points concerning the French public electricity distribution concession

P.235

### 3.1 IFRIC 12

The IFRIC issued interpretation IFRIC 12, "Service Concession Arrangements", in November 2006. Subject to completion of the endorsement process by the European Commission, application of this interpretation will be mandatory in the EU for financial years beginning on or after January 1, 2008. EDF has not opted for early application.

Nevertheless, a full review of the concession agreements concerning each of the Group's French and foreign entities was instigated in late 2006 and continued into 2007, to determine the treatment applicable in the light of interpretation IFRIC 12.

This treatment depends on whether the grantor has control, as defined by IFRIC 12, over the infrastructures and services during the concession:

- If the grantor controls the infrastructures and services, the concession falls into the scope of IFRIC 12 and the associated infrastructures are recorded in the operator's accounts as either an intangible asset or a financial asset;
- Otherwise, the concession is not governed by IFRIC 12 and the infrastructure is accounted for under the IFRS applicable.

Analysis of the control exercised by the grantor involves examining, for each contract, the type of infrastructure concerned (electricity generation, transmission or distribution) but also the legal aspects (the respective rights and obligations of the grantor and operator as defined in the agreements) and business environments (particularly tariffs and regulations), both in and outside France.

Based on this analysis, further to the changes in presentation introduced in 2007 (see note 2.11), the Group considers that IFRIC 12, when applicable, will have only a limited impact on its balance sheet and income statement.

This concerns the following items:

### 3.1.1 Public electricity distribution concessions in France

For these concessions agreements, the analysis took into consideration legal and contractual specificities as described in note 3.2.1.

It also took into consideration the fact that EDF, which holds more than 95% of French public electricity distribution concessions, plays a major role in the French distribution model through supra-concession operator

assignments reaffirmed by law (French Law of February 10, 2000, amended by the Law of August 9, 2004).

The Group considers in this context that in substance, there are no determinant factors indicating that the grantors have control over the infrastructures as defined by IFRIC 12.

### 3.1.2 All other concession agreements

For concessions other than French public electricity distribution concessions, the Group notes that the grantors do not have control over the infrastructures as defined by IFRIC 12:

- In France, for each of the major categories of concession: hydropower generation and transmission networks;
- In the United Kingdom, for EDF Energy's electricity networks;
- In other countries (Hungary, Slovakia) for all other significant concession agreements.

The Group is awaiting finalization of the positions regarding EnBW's distribution networks in Germany, and Edison's gas distribution networks in Italy.

# **3.2** Specific points concerning the French public electricity distribution concession

### 3.2.1 General background

Since the enactment of the French Law of April 8, 1946, EDF has by law been the sole operator for the main public distribution concessions in France.

The accounting treatment of concessions is based on the concession agreements, with particular reference to their special clauses. It takes into consideration the possibility that EDF may one day lose its status as the sole authorized State concession operator.

There are approximately 1,200 public electricity distribution concession contracts in France, generally covering terms of between 20 and 30 years.

95% of these contracts use standard concession rules based on the 1992 Framework Contract negotiated with the National Federation of Licensing Authorities (Fédération Nationale des Collectivités Concédantes et Régies or FNCCR) and approved by the public authorities. This set of rules includes the following main clauses:

- It specifies the purpose and scope of the concession: the licensing authority grants the operator the exclusive right to operate the public electricity distribution service in a given region. The operator is responsible for operating the service and does so at its own risk;
- It establishes the principles with respect to tariffs, namely the equal treatment of users, economic efficiency and geographical equalization;

- It sets forth the payments that must be made by the operator to the grantor;
- It specifies the operator's obligation to record industrial depreciation and establish provisions for renewal, taking into account the cost of replacing installations that must be replaced prior to the end of the concession (article 10). The amounts of these obligations must be reported annually to the grantors (article 32);
- It establishes the practical and financial terms and conditions for renewal of a concession, particularly the requirement that the operator should transfer to the grantor any excess unused provision for renewal (article 31A);
- It establishes the practical and financial terms and conditions in the event of non-renewal or early termination if the service becomes irrelevant (article 31B), i.e.:
- Return of the concession installations and equipment to the grantor in good operating condition;
- Payment by the licensing authority of an indemnity equal to the nondepreciated, remeasured value of the installations, proportionate to its contribution to the financing (the purpose being to enable EDF to recover the non-depreciated value of installations it has financed as the operator);
- Payment by the operator to the grantor of the balance of provisions for renewal of the installations, together with the industrial depreciation recorded, in an amount proportionate to the grantor's contribution to financing.



# 3.2.2 Accounting treatment of EDF's public electricity distribution concessions

# 3.2.2.1 RECOGNITION OF ASSETS AS PROPERTY, PLANT AND EQUIPMENT OPERATED UNDER FRENCH PUBLIC ELECTRICITY DISTRIBUTION CONCESSIONS

As of January 1, 2007, all assets used by EDF in public electricity distribution concessions in France, whether they are owned by the grantor or the operator, are reported together under a specific line in the balance sheet assets.

#### 3.2.2.2 RECOGNITION OF SPECIAL CONCESSION LIABILITIES

These liabilities represent the contractual obligations specific to the concession rules. As of January 1, 2007, they are recognized in the liabilities as:

- Rights in existing assets: these correspond to the grantor's right to recover all assets for nil consideration. This right comprises the value in kind of the facilities the net book value of assets operated under concession less any as yet unamortized financing provided by the operator;
- Rights in assets to be replaced: these correspond to the operator's obligation to contribute to the financing of assets due for replacement.
   These non-financial liabilities are recorded under the following headings:
- Depreciation recorded on the portion of assets financed by the grantor,
- Provision for renewal based on the difference between the replacement value at year-end and the historical value of the assets, concerning only assets due for renewal before the end of the concession; the annual allocations to the provision correspond to the difference between the replacement value as measured at each year-end, and the historical value, less any existing provisions. The net amount is spread over the residual useful life of the assets. Consequently, the expenses recognized for a given item increase over time.

When assets are replaced, the provision and amortization of the grantor's financing recorded in respect of the replaced item are eliminated and transferred to the rights in existing assets, since they are considered as the grantor's financing for the new asset. Any excess provision is taken to income.

During the concession, the grantor's rights in assets to be replaced are thus transferred upon the asset's renewal to become the grantor's rights in existing assets, with no outflow of cash to the benefit of the grantor.

# 3.2.3 Change in presentation for net increases in provisions for renewal of property, plant and equipment operated under concession in the income statement

The analyses of French public electricity distribution concessions, mainly undertaken in view of the coming application of IFRIC 12, highlighted the similar natures of the obligations to establish, on behalf of the grantor, a provision for renewal of assets financed by the grantor and amortization of the grantor's financing:

- The provision for renewal and amortization of the grantor's financing jointly contribute to establish financing for the grantor;
- The provision for renewal complements the industrial depreciation up to an amount equivalent to the amortization recorded in connection with the replacement value:
- When the asset is replaced, the provision for renewal and the amortization
  of the grantor's financing recorded in respect of the replaced asset will
  together form the grantor's rights to the value in kind of the new asset.

Although they are of the same nature, the net flows from the provision for renewal and amortization of the grantor's financing were reported at different levels in the income statement.

Driven by its concern for top-quality relevance in financial information, the Group has decided to harmonize the treatment of these two obligations in the income statement from January 1, 2007. Net increases in provisions for renewal of property, plant and equipment operated under concession are now reported under a specific heading as a component of operating profit and thus no longer affect operating profit before depreciation and amortization. This change in presentation has no impact on the nature or calculation methods of the obligations concerned, and operating profit is unaffected.

The financial statements at December 31, 2006 have been restated in accordance with this new presentation (see note 4).

# 3.2.4 Change of estimates for useful lives and replacement values

The Group has reviewed useful lives and the estimated values used as a basis for calculating provisions for renewal for French public electricity distribution concession assets.

Following this review, existing useful lives have been retained for all except two types of facility:

- For substation buildings (belonging to the grantor or to EDF), the useful life has been extended from 30 to 45 years;
- For electronic metering equipment (in operation since 1995 or later), the useful life has been reduced from:
  - 30 to 20 years for low-voltage equipment (BT) ≤ 36 KvA,
  - 30 to 25 years for low-voltage equipment (BT) > 36 KvA and medium-voltage equipment (HTA).

No divergence regarding the replacement values was observed that would require changes in the estimations used. However, the review did show that the purchase cost of metering equipment had decreased significantly as a result of the widespread use of electronic technology, and the revised estimated replacement value for this category of equipment is lower than the historical value. Consequently, the corresponding provision for renewal is no longer required and was totally reversed during the period.

The impacts of these accounting changes are considered as changes in estimate, and are applied prospectively.

The impact at January 1, 2007 is reported under "Other operating income and expenses" at a pre-tax amount of €555 million. The resulting impact on the 2007 net income is €338 million after taxes.

The review of useful lives and replacement values will be ongoing through maintenance work for the tools used and regular adjustment of data for broad categories of facilities.

### 3.2.5 Valuation of special concession liabilities

The value of special concession liabilities is determined as follows:

- The grantor's rights in existing assets, representing the share deemed to be held by the grantor in the concession assets, is valued on the basis of the assets recorded in the balance sheet;
- The obligations relating to assets to be replaced are valued on the basis
  of the estimated value of the relevant assets, measured at each yearend taking into consideration wear and tear on the asset at that date:
  - based on the difference between the asset's replacement value as assessed at year-end and the historical cost for calculation of the provision for renewal (see above);
- based on the share of the asset's historical cost financed by the grantor, for amortization of the grantor's financing.

The valuation of these liabilities is subject to uncertainty in terms of cost and disbursement dates, among other factors.

The Group considers that the liabilities related to assets to be replaced are to be valued on the basis of the special clauses contained in the concession agreements. Under this approach, these liabilities are stated at the value of the contractual obligations as calculated and reported annually in the reports to the grantors.

If no such clauses existed, an alternative approach would be to state contractual obligations at the discounted value of future payments required for replacement of assets operated under concession at the end of their industrial useful life.

For information, the Group reports below the impacts of this alternative approach, i.e. the discounting of the future obligation to contribute to financing of assets to be replaced.

The principal assumptions used in preparing this simulation are as follows:

- The basis for calculation of the provision for renewal is the estimated replacement value at the end of the asset's useful life, applying a forecast annual inflation rate of 2%, less the asset's historical value. This amount is based on the wear and tear on the asset and discounted at a rate of 4.5%, based on an average duration of 8 years;
- Amortization of the grantor's financing is also discounted at the rate of 4.5%.

The following table shows the impacts of this discounting for 2007:

#### Impact on the income statement

(in millions of euros)	2007
Operating profit	650
Financial result	(520)
Income before taxes	130

#### Impact on the balance sheet and equity

(in millions of euros and before taxes )	12.31.2007
At opening date	1,690
At closing date	1,820

Valuation of concession liabilities under this method is also subject to uncertainty in terms of cost and disbursement dates; in addition, it is sensitive to variations in inflation and discount rates.

....\

Note

### Note 4 - Comparability

**4.1** Income statement reclassifications P.238

4.2 Impact of the change in presentationof property, plant and equipmentP.239

**4.3** Reclassification in the nuclear provision accounts P.241

For purposes of comparison between 2006 and 2007, the consolidated financial statements published for 2006 have been restated to reflect the changes in presentation described below.

# 4.1

### **Income statement reclassifications**

The consolidated income statement published for 2006 has been restated to reflect the change in presentation applied for net increases in provisions for renewal of property, plant and equipment operated under concessions described in note 3.2.3.

The impact of this reclassification on the income statement for 2006 is as follows:

	2006 as	Changes in	2006 after changes
(in millions of euros)	published	presentation	in presentation
Sales	58,932	-	58,932
Fuel and energy purchases	(23,949)	-	(23,949)
Other external expenses	(8,721)	-	(8,721)
Personnel expenses	(9,709)	-	(9,709)
Taxes other than income taxes	(3,175)	-	(3,175)
Other operating income and expenses	552	463	1,015
Operating profit before depreciation and amortization	13,930	463	14,393
Net depreciation and amortization	(5,363)	-	(5,363)
Net increases in provision for renewal of property, plant and equipment operated under concession	-	(463)	(463)
(Impairment) / reversals	121	-	121
Other operating income and expenses	668	-	668
OPERATING PROFIT	9,356		9,356

# 4.2 Impact of the change in presentation of property, plant and equipment

To provide additional financial information reflecting the specificities of concessions, as of January 1, 2007, the Group's property, plant and equipment are reported under three balance sheet headings, according to the business and contractual circumstances of their use (see note 2.11).

The impacts of this change in presentation on the 2006 financial statements are as follows:

# **4.2.1** Reclassifications related to the change in presentation of property, plant and equipment owned by the Group at January 1, 2006

At 01.01.2006 (in millions of euros)	Land & Buildings	Nuclear power plants	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery & equipment & other	Total
Gross values of property, plant and equipment owned by the Group	15,402	44,710	16,128	34,690	9,852	120,782
Impacts of restatements:						
- Related to property, plant and equipment operated under concession (1)	(1,023)	-	(9)	(4,035)	(1,804)	(6,871)
- As property, plant and equipment operated under concession of other activities (2)	(2,685)	-	(2,746)	(28,936)	(1,980)	(36,347)
Gross values of property, plant and equipment used in generation and other tangible assets owned by the Group	11,694	44,710	13,373	1,719	6,068	77,564
Depreciation and impairment of property, plant and equipment owned by the Group	(7,071)	(27,775)	(7,888)	(12,152)	(6,181)	(61,067)
Impacts of restatements:						
- Related to property, plant and equipment operated under concession (1)	394	-	5	1,841	1,404	3,644
- As property, plant and equipment operated under concession of other activities (2)	1,154	-	1,262	9,533	1,370	13,319
Depreciation and impairment of property, plant and equipment used in generation and other tangible assets owned by the Group	(5,523)	(27,775)	(6,621)	(778)	(3,407)	(44,104)
NET VALUES OF PROPERTY, PLANT AND EQUIPMENT OWNED BY THE GROUP	8,331	16,935	8,240	22,538	3,671	59,715
NET VALUES OF PROPERTY, PLANT AND EQUIPMENT USED IN GENERATION AND OTHER TANGIBLE ASSETS OWNED BY THE GROUP	6,171	16,935	6,752	941	2,661	33,460

<sup>(1)</sup> See note 4.2.2.

<sup>(2)</sup> See note 4.2.3.



# **4.2.2** Reclassifications related to the change in presentation of property, plant and equipment operated under concession at January 1, 2006

At January 1, 2006  (in millions of euros)	Land & Buildings	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery & equipment & other	Total
Gross values of property, plant and equipment operated under concession	2,324	6,206	54,312	1,189	64,031
Impact of restatements:					
- As property, plant and equipment operated under concessions of other activites (1)	(1,369)	(6,192)	(1,044)	(121)	(8,726)
- Related to property, plant and equipment owned by the Group (2)	1,023	9	4,035	1,804	6,871
Gross values of property, plant and equipment operated under French public electricity distribution concessions	1,978	23	57,303	2,872	62,176
Depreciation and impairment of property, plant and equipment operated under concession	(1,266)	(2,924)	(21,093)	(638)	(25,921)
Impact of restatements:					
- As property, plant and equipment operated under concessions of other activites (1)	611	2,918	1,533	30	5,092
- Related to property, plant and equipment owned by the Group (2)	(394)	(5)	(1,841)	(1,404)	(3,644)
Depreciation and impairment of property, plant and equipment operated under French public electricity distribution	(1,049)	(11)	(21,401)	(2,012)	(24,473)
NET VALUES OF PROPERTY, PLANT AND EQUIPMENT OPERATED UNDER CONCESSION	1,058	3,282	33,219	551	38,110
NET VALUES OF PROPERTY, PLANT AND EQUIPMENT OPERATED UNDER FRENCH PUBLIC ELECTRICITY DISTRIBUTION	929	12	35,902	860	37,703

<sup>(1)</sup> See note 4.2.3 (2) See note 4.2.1

# 4.2.3 Reclassifications related to the change in presentation of property, plant and equipment operated under concessions for other activities at January 1, 2006

At January 1, 2006  (in millions of euros)	Land & Buildings	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery & equipment & other	Total
Gross values of property, plant and equipment equipment operated under concession of other activities	-	-	-	-	-
Impact of restatements:					
- From property, plant and equipment operated under concession (1)	1,369	6,192	1,044	121	8,726
- From property, plant and equipment owned by the Group (2)	2,685	2,746	28,936	1,980	36,347
Gross values of property, plant and equipment operated under concessions of other activities	4,054	8,938	29,980	2,101	45,073
Depreciation and impairment of property, plant and equipment operated under concessions of other activities	-	-	-	-	-
Impact of restatements:					
- From property, plant and equipment operated under concession (1)	(611)	(2,918)	(1,533)	(30)	(5,092)
- From property, plant and equipment owned by the Group (2)	(1,154)	(1,262)	(9,533)	(1,370)	(13,319)
Depreciation and impairment of property, plant and equipment operated under concession of other activities	(1,765)	(4,180)	(11,066)	(1,400)	(18,411)
NET VALUES OF PROPERTY, PLANT AND EQUIPMENT	2,289	4,758	18,914	701	26,662

<sup>(1)</sup> See note 4.2.2 (2) see note 4.2.1

OPERATED UNDER CONCESSION OF OTHER ACTIVITIES

### Reclassification in the nuclear provision accounts

The implementing provisions for the French Law of June 28, 2006 on the sustainable management of radioactive materials and waste (see note 5.1.1.1) require expenses to be measured in five categories.

Consequently, nuclear provisions are presented as follows:

- Provisions for decommissioning;
- Provision for spent fuel management, previously the provision for reprocessing nuclear fuel; this also covers expenses for removal and conditioning of old waste;
- Provision for long-term radioactive waste management, previously the provision for removal and storage of radioactive waste; this also covers expenses for surveillance once storage is closed.

In the balance sheet, these provisions are presented under two headings:

- Provision for back-end nuclear cycle, previously the provision for end of nuclear fuel cycle;
- Provision for decommissioning and last cores.

In application of the same laws, provisions for the long-term management of radioactive waste resulting from decommissioning of EDF's nuclear power plants have been reclassified at December 31, 2007 and are now included in the "Provision for long-term radioactive waste management" instead of "Decommissioning provisions". Details of these changes in presentation are provided in note 31.2.

# Note 5

# Significant events and transactions of 2007 and 2006



**5.1** Significant events and transactions of 2007

P.241

**5.2** Significant events and transactions of 2006

P.242

# 5.1

### Significant events and transactions of 2007

The main events and transactions of 2007 with a significant impact on the financial statements are as follows:

#### **5.1.1** France

# **5.1.1.1** APPLICATION OF THE LAW OF JUNE 28, 2006 ON SUSTAINABLE MANAGEMENT OF RADIOACTIVE MATERIALS AND WASTE

The implementing provisions issued in 2007 were the decree of February 23, 2007, and the decision of March 21, 2007 on the secure financing of nuclear expenses.

These led to changes in both the presentation and estimation of provisions, as detailed in notes 4.3 and 31.2.

### **5.1.1.2** TRANSFER OF THE ELECTRICITY DISTRIBUTION BUSINESS TO A SUBSIDIARY

In application of the French Law of December 7, 2006 on energy, EDF transferred the electric energy distribution business for mainland France to a subsidiary, with legal effect from December 31, 2007.



EDF transferred all the relevant assets to the new company Electricité Réseau Distribution France (ERDF), under the partial business transfer procedure with retroactive effect for accounting purposes to January 1, 2007. This operation had no impact on the Group's consolidated financial statements, as ERDF is fully consolidated.

### **5.1.2 Germany**

Following the corporate tax reform enacted by the German parliament on July 6, 2007, the corporate income tax rate applicable to EnBW will be reduced from 38% to 29% from 2008.

In the 2007 financial statements, this reform resulted in a decrease in deferred tax liabilities that generated tax income of €304 million.

The German regulator Federal Network Agency also notified EnBW of an 11% reduction in electricity transmission network access fees, leading the Group to recognize an impairment loss of €143 million (see note 14).

### 5.1.3 Mexico, Argentina

EDF continued its policy of withdrawal from South America, with the sale of its residual 25% holding in Edenor in May 2007, and the sale of its Mexican activities in December 2007, generating a gain of €456 million (see note 6.1).

# 5.2

### Significant events and transactions of 2006

#### **5.2.1** France

### 5.2.1.1 LAW OF JUNE 28, 2006 ON SUSTAINABLE MANAGEMENT OF RADIOACTIVE MATERIALS AND WASTE

This law defines a national policy for sustainable management of radioactive materials and waste, stipulating how the policy is to be organized and financed, and changing the financing method for certain obligations. It applies to all operators of regulated nuclear installations (*Installations nucléaires de base*), including EDF. It also introduced an obligation to cover these provisions by dedicated assets.

#### **5.2.1.2** ENERGY LAW OF DECEMBER 7, 2006

This law mainly required distribution of electricity in mainland France to be carried out by an entity that is legally distinct from EDF in 2007, and introduced a transition tariff (*Tarif réglementé transitoire d'ajustement de marché* or *TARTAM*).

This tariff is automatically applicable for two years from the date of initial application for all end-users of electricity, provided they made a formal request to their supplier by July 1, 2007. EDF booked a provision of €470 million in the 2006 financial statements for the years concerned by this transition tariff (see notes 2.2.7, 13 and 31.7.3).

#### **5.2.1.3** LAWS ON WATER AND HYDROPOWER

Article 7 of the Law of December 30, 2006 on water modified the Law of October 16, 1919 on the use of hydropower, by removing the operator's preferential right. The implementing provisions for these laws had not yet been issued at December 31, 2007.

The amended finance law for 2006 introduced duties payable on renewal of the concession proportional to the income resulting from electricity sales generated by operation of the concession facilities, up to a maximum of 25% of electricity income.

### 5.2.2 Germany

In July 2006, the German regulator Federal Network Agency notified EnBW of an 8% reduction in electricity transmission network access fees, and this was followed by a 14% reduction in distribution network access fees in August 2006. EnBW appealed against these decisions. This situation led EDF to record an impairment loss of €318 million against EnBW's goodwill at June 30, 2006 (see note 14).

#### 5.2.3 Brazil

In late March 2006, the Group signed an agreement to sell 79.4% of its Brazilian subsidiary Light for USD 320 million. The sale was completed on August 10, 2006, and EDF retained 10% of the capital of Light. EDF therefore reversed €624 million of impairment booked on long-term assets at June 30, 2006.

### **Note**

### Changes in the scope of consolidation





**6.1** Changes in the scope of consolidation in 2007

**6.2** Changes in the scope of consolidation in 2006

P.243

P.244

# 6.1

### Changes in the scope of consolidation in 2007

The main changes in the scope of consolidation during 2007 are described below:

#### - Germany:

- Sale by EnBW of its subsidiary U plus, a specialized waste processor, for a price of €35 million, generating a net-of-tax gain of €15 million;
- Consolidation changes in the EnBW Group:
- Application of the equity method for seven companies, including the 35%-owned Drewag.
- Full consolidation of ESW and GSW following acquisitions of additional investments.

#### - Italy:

- Exercise of Edison warrants reducing the EDF Group's ownership interest to 48.96%;
- Sale by Edison in February 2007 of its 66.32% investment in Serene, after approval was issued by the competent competition authorities, for €98 million:
- Full consolidation of Thisvi Power Generation Plant in the Edison Group, following acquisition of 65% of its capital in early 2007.

#### - Other areas:

- Change in consolidation method applied for SSE, which has been proportionally consolidated since January 1, 2007;
- Acquisition by Edev of a further 13.77% in *Electricité de Strasbourg* in September 2007, for €150 million. The resulting goodwill, based on the value of assets and liabilities included in the Group's financial statements. is €126 million;
- Full consolidation of Supra and Fahrenheit, proportional consolidation of Sloe, EDF Investissement groupe and Domofinance, and external growth operations in the Dalkia and EDF Energies Nouvelles Groups in the "Rest of Europe" segment;
- Formation in July 2007 of the Unistar Nuclear Energy Group, jointly held 50/50 with the US electricity Group Constellation Energy, to develop EPR-type nuclear power plants in the United States; EDF's initial investment was USD350 million. Unistar Nuclear Energy is proportionally consolidated;
- Sale by EDF International on May 4, 2007 of its residual investment in Edenor for USD171 million (€125 million), generating a gain of €111 million;
- Sale by EDF International on December 27, 2007 of its activities in Mexico for €951 million, after repayment of the debt reported in the companies' balance sheets. This sale generated a net-of-tax gain of €376 million; the impact on the Group's net indebtedness is €970 million.



### Changes in the scope of consolidation in 2006

The main changes in the scope of consolidation during 2006 are described below:

#### - Germany:

• Acquisition by EnBW of an additional 25.05% in the capital of Stadtwerke Düsseldorf AG in March 2006 for €360.8 million, raising its percentage ownership to 54.95%. Stadtwerke Düsseldorf has been fully consolidated since March 31, 2006 taking into consideration the contingent purchase of a further 25.05% investment under a put option held by the minority shareholder, bringing the net percentage holding acquired to 50.1%.

The final goodwill amounts to €85 million, determined as follows:

(in millions of euros)	
Acquisition price	166
Put option	129
Acquisition cost	295
Net assets	418
EDF's share for 50.1% of net assets	210
FINAL GOODWILL	85

Acquisition by EnBW of a further 6% investment in the Austrian company EVN for €130 million.

#### - Italy:

- Sales of EDF Energia Italia to Edison in October 2006; the company is fully consolidated by Edison;
- Sale by Edison of its subsidiary Rete to Rtl, completed in November 2006 for €294 million.

#### - Other areas:

- Sale of ASA Holding AG in Austria, completed in late March 2006 for a price of €224 million, resulting in deconsolidation of the company at the same date. This generated a net-of-tax gain of €160 million;
- Sale of two power plants in Egypt completed in late March 2006 at the price of €198 million, resulting in deconsolidation of these companies at the same date. This generated a net-of-tax gain of €170 million:
- Sale of EDF Capital Investissement;
- Acquisition on March 23, 2006 of a further 17.32% interest in Motor Columbus from the Swiss bank UBS, for an amount of CHF 404 million. Atel also acquired 7.2% of the capital of Motor Columbus from the same bank for CHF 43 million (EDF's share). Following these purchases and a public offer to exchange Atel shares for Motor Columbus shares, Motor Columbus and Atel continued to be accounted for under the equity method (on a basis of 41.03% and 25.78% respectively) at December 31, 2006.

The final goodwill after allocation of the acquisition price for these shares is €11 million lower than the provisional estimate at December 31, 2006:

(in millions of euros)

Acquisition price for Atel and Motor Columbus shares		283
Stockholder's equity	1,344	
Impact of fair value measurement	1,244	
Restated stockholders' equity	2,588	
Share acquired by EDF		283
FINAL GOODWILL		-

Adjustments to fair value mainly concern generation assets (€806 million), energy supply contracts (€253 million) and other assets (€185 million);

 Acquisition by EDF International of a further 39.09% in the Hungarian distribution and sales subsidiary Demasz on December 15, 2006, for €112 million;

The final goodwill amounts to €8 million, identical to the provisional goodwill determined in December 2006;

• Change in consolidation method for *EDF Energies Nouvelles (EDF EN)*: *EDF Energies Nouvelles*, an operator on the worldwide renewable energies market, undertook an IPO in November 2006.

On December 1, 2006, the shareholder agreement of July 17, 2006 between the EDF and Mouratoglou Groups came into force with the issuance of shares for the IPO of EDF EN, and the EDF Group took exclusive control of EDF EN. As a result, the consolidation method for EDF EN was changed from proportional to full consolidation from December 31, 2006.

The key data on the final valuation at December 31, 2007, excluding minority interests in EDF EN, are summarized below:

(in millions of euros)

Revaluation of assets	312
Differed tax liabilities related to these operations	(84)
Cancellation of goodwill of EDF Energies nouvelles	(4)
Net revaluation	224
EDF share (50%)	112
Cancellation of goodwill on EDF Energies Nouvelles	
recorded by EDF	(19)
IMPACT ON THE EDF GROUP EQUITY	93

- Direct consolidation of the EDEV Group subsidiaries Tenesol, Soprolif, Socodei, Cofiva and Sofinel since January 1, 2006;
- Sale of 79.4% of its Brazilian subsidiary Light completed on August 10, 2006 for USD 320 million, leading to deconsolidation of Light as of June 30, 2006. The Group retains a 10% interest in Light, recorded in available-for-sale financial assets in the balance sheet, and the remaining balance of its capital (10.6%) is publicly traded on the Brazilian stock market. This operation resulted in a reversal of impairment totaling €624 million.

### **Note**

7

### **Segment reporting**



**7.1** Reporting by geographical area P.245 **7.2** Income from external sales

by geographical area based on client location P.247

**7.3** Reporting by business segment P.247

Segment reporting corresponds to the Group's internal organization, reflecting the various risks and rates of return to which the Group is exposed.

Segment reporting is primarily by geographical area, with the "country" risk taking priority over the "business" risk in view of the differences in

economic, regulatory and technical environments between the various areas in which the Group operates.

Segment reporting is determined before inter-segment consolidation adjustments and inter-segment eliminations. Inter-segment transactions take place at market prices.

# 7.1

### Reporting by geographical area

The breakdown used by the EDF Group for geographical areas is as follows:

- "France", which refers to EDF and its subsidiaries RTE EDF Transport
  and ERDF, comprising their regulated activities (mainly Distribution and
  Transmission) and deregulated activities (mainly Generation and
  Supply);
- "United Kingdom", which refers to the EDF Energy subgroup;
- "Germany", which refers to the entities of the EnBW subgroup;
- "Italy", which covers all the entities located in Italy, principally the Edison subgroup, TDE, and Fenice;
- "Rest of Europe", which groups together the other European entities, mostly located in continental Europe, and new investments and businesses including Electricité de Strasbourg, Dalkia, Tiru, EDF International, EDF Energies Nouvelles and EDF Trading;
- "Rest of the world", which covers entities in the US, Latin America and Asia.

#### 7.1.1 At December 31, 2007

(in millions of euros)	France	United Kingdom	Germany	Italy	Rest of Europe	Rest of the world	Eliminations	Total
External sales	32,232	8,353	6,900	4,658	6,225	1,269	-	59,637
Inter-segment sales	376	4	25	-	602	1	(1,008)	-
TOTAL SALES	32,608	8,357	6,925	4,658	6,827	1,270	(1,008)	59,637
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTIZATION	9,996	1,285	1,031	910	1,655	333		15,210
Balance sheet:								
Goodwill	-	2,320	1,390	2,031	1,435	90	-	7,266
Intangible assets and fixed assets	78,271	10,328	6,200	4,910	6,747	906	-	107,362
Investments in companies accounted for under the equity method	-	42	817	18	1,578	75	-	2,530
Other segment assets (1)	20,268	2,054	1,790	1,231	4,465	213	-	30,021
Assets classified as held for sale	-	50	2	155	62	-	-	269
Other non-allocated assets	-	-	-	-	-	-	-	38,701
TOTAL ASSETS	98,539	14,794	10,199	8,345	14,287	1,284		186,149
Segment liabilities (2)	100,810	3,409	6,284	1,440	5,437	206	-	117,586
Liabilities related to assets classified as held for sale	-	39	4	38	33	-	-	114
Other non-allocated liabilities and equity	-	-	-	-	-	-	-	68,449
TOTAL EQUITY AND LIABILITIES	100,810	3,448	6,288	1,478	5,470	206		186,149
Other information:								
Investments in intangible assets and property,								
plant and equipment	5,097	1,183	378	397	1,000	70	-	8,125
Net depreciation and amortization	(3,836)	(475)	(363)	(440)	(411)	(103)	-	(5,628)
Impairment	5	(1)	(146)	(8)	-	-	-	(150)



### 7.1.2 At December 31, 2006

(in millions of euros)	France	United Kingdom	Germany	Italy	Rest of Europe	Rest of the world	Eliminations	Total
External sales	31,927	8,319	6,016	5,615	4,930	2,125	-	58,932
Inter-segment sales	154	-	49	-	504	-	(707)	
TOTAL SALES	32,081	8,319	6,065	5,615	5,434	2,125	(707)	58,932
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTIZATION (3)	9,348	1,268	996	928	1,371	482		14,393
Balance sheet:								
Goodwill	-	2,534	1,501	2,004	1,043	41	-	7,123
Other Intangible assets and property, plant and equipment	76,770	10,583	6,281	5,351	5,527	1,469	-	105,981
Investments in companies accounted for under the equity method	-	79	574	23	1,691	92	-	2,459
Other segment assets (1)	17,338	2,531	1,785	1,420	3,875	424	-	27,373
Assets classified as held for sale	-	-	18	122	-	-	-	140
Other non-allocated assets	-	-	-	-	-	-	-	36,010
TOTAL ASSETS	94,108	15,727	10,159	8,920	12,136	2,026		179,086
Segment liabilities (2)	97,914	4,639	6,101	1,689	2,946	252	-	113,541
Liabilities related to assets classified as held for sale	-	-	47	69	-	-	-	116
Other non-allocated liabilities and equity	-	-	-	-	-	-	-	65,429
TOTAL EQUITY AND LIABILITIES	97,914	4,639	6,148	1,758	2,946	252		179,086
Other information:								
Investments in intangible assets and property, plant and equipment	3,948	932	293	360	410	102	-	6,045
Net depreciation and amortization	(3,667)	(447)	(351)	(451)	(327)	(120)	-	(5,363)
Impairment	-	-	(359)	(47)	(64)	591	-	121

<sup>(1)</sup> Other segment assets include inventories, trade receivables and other receivables.

 <sup>(1)</sup> Other segment assets include inventiones, trade receivables and other receivables.
 (2) Segment liabilities include special concession liabilities, provisions for the back-end nuclear cycle, provisions for decommissioning and last cores, provisions for employee benefits, other provisions (excluding provisions for risks associated with investments and provisions for tax risks), trade payables and other liabilities.
 (3) The figures published for 2006 have been restated to reflect the change in presentation whereby net increases in provisions for renewal of property, plant and equipment operated under concessions are reported under a specific heading (see notes 3.2.3 and 4.1).

# Income from external sales by geographical area based on client location:

(in millions of euros)	France	Europe	Rest of the world	EDF Trading	Total
2007	31,474	25,505	1,988	670	59,637
2006	29,462	26,267	2,456	747	58,932

# 7.3

### **Reporting by business segment**

The Group's businesses are divided into the following segments:

- Generation/Supply: this segment covers all expertise and assets required to generate energy and sell it to industry, local authorities, small businesses and residential consumers;
- **Distribution:** this consists of managing the low and medium-voltage public distribution network;
- Transmission: this involves operating, maintaining and expanding the high-voltage and very-high-voltage electricity transmission network;
- Other: this category consists of energy services (district heating, thermal energy services, etc.) for industry and local authorities, as well as new segments mainly aimed at boosting electricity generation through cogeneration and renewable energy sources (e.g. wind turbines, solar panels, etc.).

(in millions of euros)	Generation - Supply	Distribution	Transmission	Other	Eliminations (1)	Total
At December 31, 2007:						
External sales:						
- France	20,317	8,551	3,998	196	(830)	32,232
- Rest of the world	21,256	2,126	16	4,007	-	27,405
TOTAL SALES	41,573	10,677	4,014	4,203	(830)	59,637
Segment assets	67,374	54,498	12,051	12,946	(498)	146,371
Non-allocated assets	-	-	-	-	-	39,778
Purchases of property, plant and equipment and intangibles	3,490	3,146	802	687	-	8,125
At December 31, 2006:						
External sales:						
- France	19,695	8,529	4,009	552	(858)	31,927
- Rest of the world	21,327	1,161	-	4,517	-	27,005
TOTAL SALES	41,022	9,690	4,009	5,069	(858)	58,932
Segment assets	60,962	58,579	12,592	11,530	(2,732)	140,931
Non-allocated assets	-	-	-	-	-	38,155
Purchases of property, plant and equipment and intangibles	1,634	2,856	602	953	-	6,045

<sup>(1)</sup> Including eliminations of transactions between regulated activities (Distribution and Transmission): (172) for 2007, (120) for 2006; including eliminations of transactions between deregulated activities: (46) for 2007, (117) for 2006.



**Note** 

Note 8 - Sales

8



Sales are comprised of:

(in millions of euros)	2007	2006
Sales of energy and energy-related services	54,622	54,259
Other sales of goods and services	4,258	3,957
Change in fair value of commodity contracts	94	(42)
Net foreign exchange loss	(2)	(1)
Trading	665	759
SALES	59,637	58,932

Consolidated sales increased by 1.2% compared to 2006.

### **Note**

# Fuel and energy purchases





Fuel and energy purchases comprise:

(in millions of euros)	2007	2006
Fuel purchases used - power generation	(8,237)	(8,481)
Energy purchases	(13,454)	(13,481)
Transmission and delivery expenses	(2,215)	(1,934)
Gain/loss on hedging operations	102	(134)
(Increase)/decrease in provisions related to nuclear fuels and energy purchases	589	81
FUEL AND ENERGY PURCHASES	(23,215)	(23,949)

Fuel and energy purchases decreased by €734 million or 3.1% lower than in 2006.

# Note

### Other external expenses

**10** .



Other external expenses comprise:

(in millions of euros)	2007	2006
External services	(9,300)	(8,315)
Other purchases (excluding external services, fuel and energy)	(3,108)	(2,447)
Change in inventories and capitalized production	2,498	1,960
(Increase)/decrease in provisions on other external expenses	113	81
OTHER EXTERNAL PURCHASES	(9,797)	(8,721)

### Note

### **Contractual obligations and commitments**

<b>11.1</b> Purchase commitments	P.249
11.2 Electricity supply commitments	P.250

**11.3** Operating contract commitments and guarantees

**11.4** Operating lease commitments P.252

# 11.1

### **Purchase commitments**

In the course of its generation and supply activities, the Group has entered into long-term contracts for purchases of electricity, gas, other energies and commodities, as well as nuclear fuels, for periods of up to 20 years. In almost all cases, these are reciprocal commitments, and the third parties concerned are under an obligation to supply or purchase the quantities specified in the contracts.

EDF has also entered into long-term purchase contracts with a certain number of electricity producers, by contributing to the financing of power plants.

P.251

At December 31, 2007, the firm and irrevocable purchase commitments mature as follows (in millions of current euros):

		12.31.2007			
	Total	Maturity			Total
(in millions of euros)	Totat	< 1 year	1 - 5 years	> 5 years	iotat
Electricity purchases	13,704	3,503	4,708	5,493	13,888
Gas purchases (1)	12,600	1,412	5,284	5,904	19,950
Other energy and commodities purchases	3,558	459	1,086	2,013	3,705
Nuclear fuel purchases	14,501	1,453	7,283	5,765	7,323
FIRM AND IRREVOCABLE PURCHASE COMMITTMENTS	44,363	6,827	18,361	19,175	44,866

(1) Excluding Edison (see note 11.1.2).



### 11.1.1 Electricity purchases

Electricity purchase commitments mainly concern EDF, and are mostly for Island Energy Systems (IES), which has an obligation to purchase the electricity generated using bagasse and coal, *RTE EDF Transport*, EnBW and EDF Energy.

In addition to the obligations reported above and under article 10 of the Law of February 10, 2000, in mainland France EDF is obliged, at the producer's request and subject to compliance with certain technical features, to purchase the power produced by co-generation plants and renewable energy generation units (wind turbines and small hydro-electric plants, etc). The additional costs generated by this obligation are offset, after validation by the CRE, by the Contribution to the Public Electricity Service (Contribution au Service Public de l'Electricité or CSPE) introduced by the Law of January 3, 2003. The purchase obligations covered by the CSPE total 25.3 TWh for 2007 (22.9 TWh for 2006), including 14.4 TWh for co-generation (14.6 TWh for 2006), and 3.9 TWh for wind power, (2.1 TWh for 2006).

### 11.1.2 Gas purchases

The Group is involved in independent power plant (IPP) ventures under power purchase agreements (PPA). Gas purchase commitments are mostly related to electric IPPs, covered by electricity purchase agreements received. These agreements include "pass-through" clauses allowing almost all fluctuations in supply source costs to be passed on to the customer. The Group's gas purchase commitments are markedly lower than in 2006 due to the sale of the Mexican plants, despite the signature of new purchase contracts, particularly by EDF.

Edison has entered into "take or pay" gas import contracts for final total capacity of 18 billion cubic meters (m3) a year. The contracts already in operation concern imports from Russia, Libya and Norway, for total supplies of 7.4 billion m3 per year. Three new contracts for a total trading volume of 10.4 billion m3 per year from Qatar and Algeria will also come into force in the coming years.

# 11.1.3 Other energy and commodity purchases

Purchase commitments for other energies and commodities mainly concern coal and oil used to operate the fossil-fired plants.

### 11.1.4 Nuclear fuel purchases

Commitments for purchases of nuclear fuel arise from supply contracts for the nuclear plants designed to cover EDF's needs for nuclear fuel and for fuel assembly production, enrichment and fluoration services. The increase in commitments results partly from the signature of new contracts raising the volume and period of coverage of EDF's supply needs, and partly from revaluation of uranium supply costs following an increase in worldwide prices.

## **11.2** Electricity supply commitments

EDF has signed several long-term contracts with a number of European electricity operators, undertaking to supply electricity. These contracts are of two types:

- Co-financing agreements for nuclear power plants, either for a specific plant or for a defined group of plants. Companies participating in this financing are entitled to a share of the power generated by the plants concerned, in proportion to their initial contribution;
- Long-term commercial sales contracts, generally covered by the nuclear power plants.

When it invested in EnBW in 2001, EDF made a commitment to the European Commission to make some of its generation capacity available to the market for an initial duration of 5 years, in principle until February 7, 2006. The purpose of this arrangement was to facilitate competitors' access to the French market, to make up for supply difficulties on the emerging French market over the early years. In 2007, slightly more than 40 TWh was thus made available on the market (41 TWh in 2006). Since February 2006, EDF has had the right to file a documented application to withdraw from this auction procedure, but has chosen not to exercise this right to date. After discussions with the European

Commission and upon a proposal by EDF, the Commission authorized certain adjustments to the auction process, primarily by introduction of baseload products for a period of 4 years, on sale since September 2006, although the volume of energy made available annually by EDF is unchanged.

The auction procedure is therefore still in operation.

Finally, following the dispute between EDF and Direct Energie, the French competition authorities (Conseil de la concurrence) issued a ruling on December 10, 2007 accepting EDF's proposed commitments to tender a significant volume of electricity (1,500 MW, i.e. approximately 10 TWh per year for 15 years) to alternative suppliers at prices enabling them to compete effectively with EDF's offers on the deregulated mass market. EDF proposed to apply an average baseload supply price of €42/MWh in current euros for the initial 5-year period 2008-2012. This price is set at €36.8/MWh for the first year, with progressive rises until 2012. For the second 10-year period, the price is to be fixed at a level that covers the costs of the Flamanville EPR (€46/MWh at 2005 value). These volumes will be allocated by auction, based on 3 calls for tender (2 in 2008 and 1 in 2009).

### **Operating contract commitments and guarantees**

### 11.3.1 Operating contract performance commitments

In the course of its business, the Group provides contract performance guarantees, generally through the intermediary of banks. The Group has also given and received commitments jointly with third parties, maturing as follows at December 31, 2007:

	12.31.2007				12.31.2006
	Total	Maturity			Total
(in millions of euros)	lotat	< 1 year	1 - 5 years	> 5 years	Totat
Satisfactory performance, completion and bid guarantees	616	286	297	33	730
Commitments related to orders for operating items*	3,217	1,359	1,546	312	1,974
Commitments related to orders for fixed assets	6,434	2,944	3,409	81	4,408
Other operating commitments	3,682	2,290	1,220	172	3,986
OPERATING COMMITMENTS GIVEN	13,949	6,879	6,472	598	11,098
OPERATING COMMITMENTS RECEIVED	6,166	4,611	1,444	111	4,416

<sup>\*</sup> Excluding commodities and energy.

Satisfactory performance, completion and bid guarantees at December 31, 2007 mainly consist of guarantees related to operation of the London underground system's electric network (€220 million), and the construction or operation of power plants in Laos (€89 million). The Group has also given other guarantees totaling €307 million, principally by Dalkia International and EDF.

Firm commitments on operating orders other than commodity and energy purchases and commitments for purchases of property, plant and equipment amount to €9,651 million (compared to €6,382 million at December 31, 2006) and mainly concern the following:

- EDF and ERDF (€5,902 million in 2007, €4,102 million in 2006): commitments of €4,129 million undertaken upon signature of capital asset orders, including €1,924 million for construction of the future EPR-type nuclear plant at Flamanville in France;
- RTE EDF Transport (€885 million);
- EDF Energy (€115 million in 2007, €390 million in 2006);
- Edison (€193 million in 2007, €319 million in 2006);
- EDF Energies Nouvelles (EEN) (€1,744 million) and Tenesol (€227 million) in connection with orders, particularly in the field of renewable energy.

Other operating commitments mainly concern:

 The solidarity commitment undertaken by operators of nuclear power plants in Germany, which would come into force in the event of any one of them being unable to meet its obligations following a nuclear incident. The amount consolidated by the EDF Group through EnBW amounts to €1,034 million (€1,034 million at December 31, 2006);

- A contract entered into with CDC Ixis Capital Markets to cover the exposure of EDF's electricity distribution network in France to risk of storm damage, whereby each party undertakes to indemnify the other for any liability connected with issuance of a CAT bond, up to an overall maximum amount of €240 million for each party. This contract, signed in 2003 for an initial 5-year period, expires in 2008 and can be renewed for a further 5 years. It has not yet been decided whether to renew the contract:
- Edison (€613 million);
- EDF Trading (€592 million).

Commitments received mainly concern EDF, and are mostly commitments from insurance companies to cover risks related to construction of the EPR-type nuclear plant, amounting to €2,843 million (€2,842 million at December 31, 2006).

### 11.3.2 Partnership between EDF and Enel

On November 30, 2007, EDF and Enel signed a strategic partnership agreement, under which Enel bears a 12.5% share in all construction, operation, decommissioning and back-end nuclear cycle management expenses for the Flamanville 3 EPR-type nuclear plant, in return for access to 12.5% of the electricity generated by the EPR over its lifetime. The plant's nuclear operator is EDF, which bears full responsibility for its operations.

The partnership agreement also gives Enel the option of progressively acquiring the electricity generated by EDF's nuclear plants, up to a total capacity of 1,200 MW.



## 11.4

#### **Operating lease commitments**

The Group is a party to agreements classified as operating leases under IFRIC 4, which account for most of its operating lease commitments as lessor. These agreements concern the Asian IPPs. The decrease in this item compared to December 31, 2006 essentially results from the sale of the Mexican power plants.

The Group is also committed as lessee to irrevocable operating lease contracts for premises, equipment and vehicles used in the course of its business. The corresponding payments are subject to renegotiation at intervals defined in the contracts. EDF, EDF Energy and EDF Trading are the principal entities concerned.

At December 31, 2007, the total expenses and commitments for irrevocable lease payments are as follows:

		12.31.2007			12.31.2006	
	Total	Maturity			Total	
(in millions of euros)	Totat	< 1 year	1 - 5 years	> 5 years	Totat	
Operating lease commitments as lessor	1,778	212	779	787	5,714	
Operating lease commitments as lessee	2,709	595	1,447	667	2,342	

# Note 1 7

### **Personnel expenses**

••••

**12.1** Personnel expenses

P.252

**12.2** Average workforce

P.253

## 12.1

#### **Personnel expenses**

Personnel expenses comprise:

(in millions of euros)	2007	2006
Wages and salaries	(6,548)	(6,385)
Social contributions	(1,123)	(1,116)
Employee profit sharing	(213)	(368)
Non monetary benefits	(340)	(347)
Other expenses linked to short-term benefits	(67)	(35)
Short-term benefits	(8,291)	(8,251)
Post-employment benefits	(1,665)	(1,424)
Other long-term expenses	70	(23)
Free share plan for Group employees	(35)	-
Termination payments	(17)	(11)
Other personnel expenses	18	(34)
PERSONNEL EXPENSES	(9,938)	(9,709)

A free share plan (named ACT 2007) was approved by the General Shareholders' Meeting of May 24, 2007. The final conditions for allotment of shares, particularly the list of beneficiaries in the Group companies concerned by this operation and the number of shares to be received by each beneficiary, have been defined and were approved at the Board of Directors' meeting held on August 30, 2007. The shares will be delivered on August 31, 2009 to employees who had a contract with the company for the entire vesting period (apart from exceptions as specified in the plan), subject to achievement of performance objectives for the

period 2006-2008. 2.9 million shares had been granted at August 30, 2007

This plan is stated at the fair value of shares at their grant date (€72.50 per share at August 30, 2007), based on the EDF share price at that date, together with the other actuarial assumptions applied.

The expense recognized for 2007 is proportionate to the portion of the vesting period elapsed: €35 million of an estimated total of €207 million.

## 12.2

#### **Average workforce**

	2007	2006
IEG status	103,855	105,577
Other	50,178	50,391
TOTAL	154,033	155,968

Average workforce numbers are reported on a full-time equivalent basis.

Personnel corresponding to proportionally consolidated companies included pro rata with the Group's percentage interest represent the equivalent of 26,280 full-time employees at December 31, 2007 (26,190 full-time equivalent employees at December 31, 2006).

# Note 13

### Other operating income and expenses



Other operating income and expenses comprise:

(in millions of euros)	2007	2006
Operating subsidies	2,024	1,482
Provision for electricity generators' contribution to the TARTAM (1)	(248)	(470)
Net income on deconsolidation	46	17
Gains on disposal of property, plant and equipment	(47)	(21)
Net increase in provisions on current assets	2	(32)
Net increase in provisions for operating contingencies and losses	80	(23)
Other operating income and expenses	(98)	62
OTHER OPERATING INCOME AND EXPENSES	1,759	1,015

(1) Tarif réglementé transitoire d'ajustement de marché or Transition tariff.

Operating subsidies mainly comprise the subsidy received by EDF in respect of the Contribution to the Public Electricity Service (CSPE) introduced by the French Law of January 3, 2003. This contribution is payable by end-users (both eligible and non-eligible) and collected by network

operators or electricity suppliers, which then pay it to the State. Since January 1, 2005, the additional costs resulting from the basic necessity tariff (*tarif de première nécessité*) and the poverty and vulnerability action measures are also included in subsidies.



In the financial statements, this compensation results in recognition of income of  $\in$ 1,864 million net of hedging derivatives for 2007 ( $\in$ 1,457 million for 2006). This increase is due to the fall in market prices for electricity between the two periods.

The CSPE income receivable is valued on the basis of the most probable assumptions, assessed at December 31, 2007.

The Law of December 7, 2006 introduced a transition tariff (tarif réglementé transitoire d'ajustement du marché or TARTAM). This tariff is automatically applicable in mainland France for two years from the date of initial application for all end-users of electricity, provided they made a formal request to their supplier by July 1, 2007. The decision of January 3, 2007 states that this transition tariff is equal to the regulated sales tariff, excluding taxes, plus 10%, 20% or 23% depending on the type of enduser electing to benefit from the transition tariff.

Suppliers providing customers with electricity at this tariff at the customer's request, even though they are unable to generate or purchase the electricity supplied at a lower rate, receive compensation for the differential between the cost of the electricity supplied and the income corresponding to supply at the transition tariff.

This compensation paid to electricity suppliers is financed by a share of the Contribution to the Public Electricity Service (*Contribution au Service Public de l'Electricit*é or CSPE), and a contribution paid by nuclear and hydropower generators who exceed certain generation levels (this includes EDF), up to the limit of €1.3/MWh. The amount of the electricity generators' contribution is calculated such that, taken together with the CSPE, it covers all expenses borne by suppliers.

A provision of €470 million was booked in the Group's financial statements at December 31, 2006 to cover EDF's contribution to the compensation for electricity suppliers introduced by the transition tariff over the two years concerned by the system. Following adjustment of the underlying assumptions (see note 2.2.7), a further amount of €248 million was added to the provision for 2007.

Operations of an unusual amount or nature are reported in "Other income and expenses" (see note 15).

## Note -

#### Impairments / reversals



Details of impairments recognized and reversed are as follows:

(in millions of euros)	2007	2006
Impairment on goodwill	(68)	(337)
Impairment on property, plant and equipment	(93)	(177)
Reversal	11	635
IMPAIRMENT NET OF REVERSAL	(150)	121

The net-of-tax weighted average cost of capital referred to for impairment tests in 2007 was in the following ranges:

- 4.7% to 5.3% for regulated activities in the Euro zone (4.7% in 2006);
- 6.2% to 7.8% for deregulated activities in the Euro zone (6.1% to 7.4% in 2006):
- $\bullet$  5.8% to 10.5% in Europe outside the Euro zone (6.6% to 10.8% in 2006).

The regulated activities are more sensitive to changes in interest rates, in view of their net-of-tax weighted average cost of capital.

Impairment in 2007 mainly concerns EnBW's goodwill and assets used in its transmission network, following the German regulator's announcement on January 17, 2008 of an 11% reduction in electricity transmission network access fees. Impairment of goodwill totals €67 million, and impairment of assets €76 million.

In 2006, impairment on goodwill and other assets, net of reversals in respect of other assets, was €121 million, mainly corresponding to:

- Impairment of €318 million booked in respect of EDF's share of EnBW goodwill, due to notification of a reduction in electricity transmission network access fees, followed in the second half-year of 2006 by a 14% reduction in distribution tariffs;
- A reversal of €624 million of impairment previously recorded in respect of Light assets, to reflect their fair value less selling costs, based on the terms for transfer of control over Light which took place in July 2006;
- And various asset impairments booked by subsidiaries, principally in Europe, totaling €185 million.

### Other income and expenses

15



The heading "Other income and expenses" presented below the operating profit before depreciation and amortization comprises items of an unusual nature or amount.

Other income and expenses for 2007 amount to €1,063 million, mainly comprising:

- The €111 million gain on sale of the residual 25% investment in Edenor;
- The €345 million gain on sale of the Mexican activities;
- The impact of increases and reversals of provisions for renewal following the extension of the useful lives of substation buildings, and elimination of the provision for renewal of metering equipment (€555 million) (see note 3.2.4).

Other income and expenses for 2006 amounted to €668 million, mainly comprising:

- The pre-tax gain resulting from deconsolidation of ASA Holding AG (€175 million) and the Egyptian subsidiaries Port Saïd and Port Suez (€170 million):
- A reversal of €328 million from provisions for post-employment benefits following discontinuation of the exceptional additional pension benefit.

P.255

P.256

# **16**

#### Financial result

....

**16.1** Cost of gross financial indebtedness

**16.2** Discount expense

**16.3** Other financial income and expenses P.256

## 16.1

#### Cost of gross financial indebtedness

Details of the components of the cost of gross financial indebtedness are as follows:

(in millions of euros)	2007	2006
Interest expenses on financing operations	(1,660)	(1,655)
Ineffective portion of fair value hedges	3	(54)
Ineffective portion of cash flow hedges	1	-
Transfer to income of changes in the fair value of cash flow hedges	(2)	39
Net foreign exchange gain on indebtedness	166	64
COST OF GROSS FINANCIAL INDEBTEDNESS	(1,492)	(1,606)



## 16.2

#### **Discount expense**

The discount expense primarily concerns provisions for the back-end nuclear cycle, decommissioning and last cores, and provisions for long-term and post-employment employee benefits.

Details of this expense are as follows:

(in millions of euros)	2007	2006
Provisions for employee benefits	(1,140)	(1,097)
Provisions for back-end nuclear cycle, decommissionning and last cores	(1,460)	(1,393)
Other provisions	(32)	(40)
DISCOUNT EXPENSE	(2,632)	(2,530)

## 16.3

#### Other financial income and expenses

Other financial income and expenses comprise:

(in millions of euros)	2007	2006
Financial income on cash and cash equivalents	96	76
Gains on available-for-sale financial instruments	866	816
Gains on other financial assets	400	438
Changes in financial instruments carried at fair value with changes in fair value included in income	77	(93)
Other financial expenses	(55)	(135)
Foreign exchange gain/loss on financial items other than debts	(238)	(28)
Return on hedging assets	444	361
OTHER FINANCIAL INCOME AND EXPENSES	1,590	1,435

Gains net of expenses on available-for-sale financial assets include gains on disposals, interest income, and dividends. The rise in 2007 is due to an increase in asset disposals.

The foreign exchange gain on financial assets mainly relates to financing for the British subsidiaries. It is offset by the foreign exchange gain on indebtedness, which is a component of the gross financial indebtedness (see note 16.1).

In 2006, the main component of gains on financial assets was the gain on sale of EDF's investment in Arcelor following transactions related to the takeover by the Mittal Steel Cy NV Group (€231 million).

**17** 

#### **Income taxes**



<b>17.1</b> Breakdown of tax liability	P.257
<b>17.2</b> Reconciliation of the theoretical and effective tax expense	P.257
<b>17.3</b> Breakdown of deferred tax assets and liabilities by nature	P.259
<b>17.4</b> Losses carried forward and tax credits	P.259
<b>17.5</b> Tax recorded against equity	P.259

#### **17.1** Breakdown of tax liability

Details are as follows:

(in millions of euros)	2007	2006
Current tax expense	(2,071)	(1,344)
Deferred taxes	230	198
TOTAL	(1,841)	(1,146)

In 2007, €(1,402) million of the current tax expense relates to EDF's tax consolidated group, and €(669) million to other subsidiaries.

Deferred taxes include income of €493 million corresponding to the decrease in the deferred tax liabilities of EnBW, EDF Energy and Edison following the lower income tax rates adopted in Germany, the UK and Italy for application from 2008. The German tax reform has the most significant impact (€304 million).

The tax liability for 2006 was affected by the tax savings described in note 17.2.

## 17.2

#### Reconciliation of the theoretical and effective tax expense

#### 17.2.1 Reconciliation of the theoretical and effective tax rate

(in millions of euros)	2007	2006
Income of consolidated companies before tax	7,457	6,655
Goodwill impairment	68	337
Income of consolidated companies before tax and goodwill impairment	7,525	6,992
Theoretical tax expense	(2,591)	(2,407)
Differences in tax rate	538	24
Permanent differences	157	873
Taxes without basis	(10)	338
Net depreciation of deferred tax assets	47	(4)
Other	18	30
Actual tax expense	(1,841)	(1,146)
EFFECTIVE TAX RATE	24.47%	16.39%



The main factors explaining the difference between the French tax rate (34.43%) and the effective rate are:

- 2007:
  - The adjustment of deferred taxes following the reduction of the income tax rate in Germany from 38% to 29% (€304 million);
  - The adjustment of deferred taxes following other reductions in income tax rates in the UK (€114 million) and Italy (€75 million);
  - The positive impact of differences in tax rates of the foreign subsidiaries (€45 million);
  - The tax savings related to the tax-exemption of gains on the sale of consolidated companies that took place in 2007; this had a positive tax effect of:
  - •€38 million for the sale of Edenor;
  - •€150 million for the sale of the Mexican activities;

- 2006:
- The tax saving resulting from the legal reorganization of the Light Group (€586 million) required by the Brazilian regulator Aneel;
- The tax-neutral effect of reversals of impairment on Light's long-term assets (€212 million) recorded in the first half-year;
- The favorable outcome of claims made to the UK tax authorities by EDF Energy (€104 million);
- The realignment to book value of the tax bases of certain Edison fixed assets, in accordance with the 2006 Italian Finance Law. The reversal of deferred tax liabilities in return for payment of a substitute tax of 12% resulted in a €104 million tax credit;
- Recognition in Germany of tax credits on profits taxed at a higher rate, resulting from changes in the requirements for utilization of these credits (€76 million).

#### 17.2.2 Change in deferred taxes

(in millions of euros)	Deferred tax assets	Provision on deferred tax assets	Net deferred tax assets	Deferred tax liabilities	Net deferred taxes
Situation at December 31, 2005	4,279	(2,531)	1,748	(4,567)	(2,819)
Change in tax basis	(95)	429	334	284	618
Change in scope of consolidation	(780)	850	70	(325)	(255)
Translation adjustments	13	2	15	(38)	(23)
Situation at December 31, 2006	3,417	(1,250)	2,167	(4,646)	(2,479)
Change in tax basis	(553)	17	(536)	97	(439)
Change in scope of consolidation	42	(13)	29	(76)	(47)
Translation adjustments	(48)	(3)	(51)	190	139
SITUATION AT DECEMBER 31, 2007	2,858	(1,249)	1,609	(4,435)	(2,826)

In 2007, the €(439) million change in the tax bases has an impact of €230 million on income and €(691) million on equity.

In 2006, the €618 million change in the tax bases had an impact of €198 million on income and €376 million on equity.

Changes in the scope of consolidation in 2006 mainly reflected the derecognition of deferred tax assets totally written down as a result of the sale of Light (€850 million).

## 17.3

#### Breakdown of deferred tax assets and liabilities by nature

(in millions of euros)	12.31.2007	12.31.2006
Deferred tax assets:		
Differences between depreciation recorded for accounting and tax purposes	880	854
Non-deductible provisions for pensions obligations	4,166	4,287
Other non-deductible provisions	968	1,125
Other deductible temporary differences	1,611	2,072
Revaluations, revaluation surplus and elimination of intercompany profit	177	237
Tax losses and unused tax credits	102	171
Netting of deferred tax assets and liabilities	(5,046)	(5,329)
Deferred tax assets - gross value	2,858	3,417
Provision on deferred tax assets	(1,249)	(1,250)
Deferred tax assets - net value	1,609	2,167
Deferred tax liabilities:		
Differences between depreciation recorded for accounting and tax purposes	(5,524)	(6,002)
Other deductible temporary differences	(2,778)	(2,310)
Revaluations, revaluation surplus and elimination of intercompany profit	(1,177)	(1,663)
Netting of deferred tax assets and liabilities	5,044	5,329
Deferred tax liabilities	(4,435)	(4,646)
NET DEFERRED TAXES	(2,826)	(2,479)

## 17.4

#### Losses carried forward and tax credits

At December 31, 2007, tax loss carryforwards and unrecorded deferred tax assets represent a potential tax saving of €1,249 million (€1,250 million at December 31, 2006). Most of this tax saving lies in deferred tax assets related to employee benefits in France.

## 17.5

#### Tax recorded against equity

The total deferred tax recorded against components of equity during 2007 amounts to €(691) million (€376 million in 2006), corresponding to:

- €(437) million in changes in the fair value of available-for-sale financial assets and hedging instruments (see notes 24.3.2 and 35.4),
- €(254) million from transfers of these items to income (see notes 24.3.2 and 35.4).



Note 18

#### Goodwill



Goodwill on consolidated entities comprises the following:

(in millions of euros)	12.31.2007	12.31.2006
Net book value at opening date	7,123	7,181
Acquisitions	441	102
Disposals	(2)	(9)
Impairment	(68)	(337)
Translation adjustments	(238)	46
Other movements	10	140
NET BOOK VALUE AT CLOSING BALANCE	7,266	7,123
Gross value at closing balance	8,096	7,885
Accumulated impairment at closing	(830)	(762)

The breakdown of goodwill is as follows:

(in millions of euros)	United Kingdom	Germany	Italy	Rest of Europe	Rest of the World	Total
AT DECEMBER 31, 2007	2,320	1,390	2,031	1,435	90	7,266
At December 31, 2006	2,534	1,501	2,004	1,043	41	7,123

The increase in goodwill includes:

- The effects of EnBW's external growth in Germany;
- The effect of Edison warrants exercised in Italy;
- In the "Rest of Europe" segment, external growth operations by Dalkia International, *EDF Energies Nouvelles*, and the acquisitions of Fahrenheit and the additional 13.77% in Electricité de Strasbourg;
- In the "Rest of the World" segment, the investment in Unistar Nuclear Energy.

However, following impairment tests, goodwill impairment of €67 million was booked in 2007 in respect of EnBW's Transmission activities (see notes 5 and 14).

In 2006, impairment tests led to recognition of goodwill impairment of €318 million in respect of EnBW (see note 14) and €19 million in respect of European subsidiaries.

### Other intangible assets

19.1 At December 31, 2007 19.2 At December 31, 2006

P.261

P.261

The net value of other intangible assets breaks down as follows:

## 19.1

#### At December 31, 2007

(in millions of euros)	12.31.2006	Acquisitions	Disposals	Amortization	Translation adjustments	Other movements	12.31.2007
Greenhouse gas emission rights	241	237	(238)	-	(19)	7	228
Other intangible assets	2,997	488	(45)	-	(29)	170	3,581
Gross values	3,238	725	(283)	-	(48)	177	3,809
Accumulated amortization	(1,138)	-	41	(315)	15	9	(1,388)
NET VALUES	2,100	725	(242)	(315)	(33)	186	2,421

## **19.2** At December 31, 2006

(in millions of euros)	12.31.2005	Acquisitions	Disposals	Amortization	Translation adjustments	Other movements	12.31.2006
Greenhouse gas emission rights	106	252	(121)	-	4	-	241
Other intangible assets	2,723	302	(26)	-	2	(4)	2,997
Gross values	2,829	554	(147)	-	6	(4)	3,238
Accumulated amortization	(943)	-	24	(271)	(3)	55	(1,138)
NET VALUES	1,886	554	(123)	(271)	3	51	2,100

Greenhouse gas emission rights are covered by a provision for risk (see note 31.7.3).

EDF's research and development expenses recorded in the income statement total €375 million for the year ended December 31, 2007.



## Property, plant and equipment operated under French public electricity distribution concessions



**20.1** Net value of property, plant and equipment operated under French public electricity distribution concessions

P.262

**20.2** Movements in property, plant and equipment operated under French public electricity distribution concessions (excluding assets in progress)

P.262

## 20.1

## Net value of property, plant and equipment operated under French public electricity distribution concessions

After reclassification under the presentation rules described in notes 2.12.2 and 4, the net value of property, plant and equipment operated under French public electricity distribution concessions breaks down as follows:

(in millions of euros)	12.31.2007	12.31.2006
Property, plant and equipment	38,691	38,490
Property, plant and equipment in progress	1,291	702
PROPERTY, PLANT AND EQUIPMENT OPERATED	39.982	39.192
UNDER FRENCH PUBLIC ELECTRICITY DISTRIBUTION CONCESSIONS	33,362	33,132

## 20.2

## Movements in property, plant and equipment operated under French public electricity distribution concessions (excluding assets in progress)

(in millions of euros)	Land & Buildings	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery & equipment & other	Total
Gross values at 01.01.2006 (1)	1.978	23	57,303	2.872	62,176
Increases (2)	109	119	2,455	241	2,924
Decreases	(27)	(2)	(313)	(204)	(546)
Translation adjustment	-	-	-	-	-
Changes in the scope of consolidation	-	-	_	_	_
Other movements	(55)	(115)	1	(119)	(288)
Gross values at 12.31.2006 (1)	2,005	25	59,446	2,790	64,266
Increases (2)	17	-	1,956	87	2,060
Decreases	(23)	-	(263)	(169)	(455)
Translation adjustment	-	-	-	-	-
Changes in the scope of consolidation	-	-	-	-	-
Other movements	61	(14)	6	62	115
Gross values at 12.31.2007	2,060	11	61,145	2,770	65,986
Depreciation and impairment at 01.01.2006 (1)	(1,049)	(11)	(21,401)	(2,012)	(24,473)
Net depreciation	(30)	4	(133)	(118)	(277)
Disposals	26	2	230	203	461
Translation adjustment	-	-	-	-	-
Changes in the scope of consolidation	-	-	-	-	-
Other movements (3)	(23)	(3)	(1,404)	(57)	(1,487)
Depreciation and impairment at 12.31.2006 (1)	(1,076)	(8)	(22,708)	(1,984)	(25,776)
Net depreciation	(32)	-	(146)	(102)	(280)
Disposals	20	-	188	164	372
Translation adjustment	-	-	-	-	-
Changes in the scope of consolidation	-	-	-	-	-
Other movements (3)	(49)	6	(1,483)	(85)	(1,611)
Depreciation and impairment at 12.31.2007	(1,137)	(2)	(24,149)	(2,007)	(27,295)
Net values at 01.01.2006 (1)	929	12	35,902	860	37,703
Net values at 12.31.2006 (1)	929	17	36,738	806	38,490
NET VALUES AT 12.31.2007	923	9	36,996	763	38,691

<sup>(1)</sup> The figures published for 2006 have been restated to reflect changes in the presentation of property, plant and equipment in the assets (see notes 3.2.3, 3 and 4.2).

<sup>(2)</sup> Increases also include assets contributed for nil consideration.

<sup>(3)</sup> Other movements mainly concern depreciation of assets operated under concession, booked against depreciation recorded in the special concession liabilities.

## Property, plant and equipment operated under concessions for other activities



**21.1** Net value of property, plant and equipment operated under concessions for other activities

P.263

**21.2** Movements in property, plant and equipment operated under concessions for other activities (excluding construction in progress and finance-leased assets)

P.263

## **21.1** Net value of property, plant and equipment operated under concessions for other activities

After reclassification under the presentation rules described in notes 2.12.2 and 4, the net value of property, plant and equipment operated under concessions for other activities breaks down as follows:

(in millions of euros)	12.31.2007	12.31.2006
Property, plant and equipment	26,390	27,080
Property, plant and equipment in progress	761	621
Leased property, plant and equipment	-	67
PROPERTY, PLANT AND EQUIPMENT OPERATED UNDER CONCESSIONS FOR OTHER ACTIVITIES	27,151	27,768

## 21.2

## Movements in property, plant and equipment operated under concessions for other activities (excluding construction in progress and finance-leased assets)

	Land & Buildings	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery &	Total
(in millions of euros)				equipment & other	
Gross values at 01.01.2006 (1)	4,054	8,938	29,980	2,101	45,073
Increases	93	180	1,258	72	1,603
Decreases	(13)	(9)	(139)	(119)	(280)
Translation adjustment	5	(34)	198	(42)	127
Changes in the scope of consolidation	(359)	(141)	(1,422)	6	(1,916)
Other movements	(20)	(40)	40	(13)	(33)
Gross values at 12.31.2006 (1)	3,760	8,894	29,915	2,005	44,574
Increases	62	103	929	81	1,175
Decreases	(13)	(16)	(100)	(79)	(208)
Translation adjustment	(54)	(31)	(828)	(39)	(952)
Changes in the scope of consolidation	(5)	(84)	64	-	(25)
Other movements	-	50	39	4	93
Gross values at 12.31.2007	3,750	8,916	30,019	1,972	44,657
Depreciation and impairment at 01.01.2006 (1)	(1,765)	(4,180)	(11,066)	(1,400)	(18,411)
Net depreciation	(82)	(229)	(134)	(108)	(553)
Disposals	9	5	107	104	225
Translation adjustment	(1)	4	(56)	16	(37)
Changes in the scope of consolidation	22	73	1,118	(2)	1,211
Other movements	19	23	12	17	71
Depreciation and impairment at 12.31.2006 (1)	(1,798)	(4,304)	(10,019)	(1,373)	(17,494)
Net depreciation	(80)	(206)	(783)	(101)	(1,170)
Disposals	10	11	73	74	168
Translation adjustment	17	5	168	18	208
Changes in the scope of consolidation	1	9	-	-	10
Other movements	2	6	4	(1)	11
Depreciation and impairment at 12.31.2007	(1,848)	(4,479)	(10,557)	(1,383)	(18,267)
Net values at 01.01.2006 (1)	2,289	4,758	18,914	701	26,662
Net values at 12.31.2006 (1)	1,962	4,590	19,896	632	27,080
NET VALUES AT 12.31.2007	1,902	4,437	19,462	589	26,390

(1) The figures published for 2006 have been restated to reflect changes in the presentation of property, plant and equipment in the assets (see notes 3.2.3 and 4.2).



Property, plant and equipment operated under concessions other than French public electricity distribution concessions (see note 20) comprises concession facilities mainly located in France (transmission and hydropower), the UK, Germany and Italy.

It also included the facilities of the Brazilian subsidiary until its sale on August 10, 2006. Based on the sale price defined in the Share Purchase Agreement, in the first half-year of 2006 EDF reversed €624 million of impairment recorded in the years 2002-2004 in respect of this company's fixed assets.

# Note 77

## Property, plant and equipment used in generation and other tangible assets owned by the Group



**22.1** Net value of property, plant and equipment used in generation and other tangible assets owned by the Group

P.264

**22.2** Movements in property, plant and equipment used in generation and other tangible assets owned by the Group (excluding construction in progress and finance-leased assets)

P.265

**22.3** Finance lease obligations

P.266

## **22.1** Net value of property, plant and equipment used in generation and other tangible assets owned by the Group

After reclassification under the presentation rules described in notes 2.12.2 and 4, the net value of property, plant and equipment used in generation and other tangible assets owned by the Group breaks down as follows:

(in millions of euros)	12.31.2007	12.31.2006
Property, plant and equipment owned by the Group	33,855	33,991
Property, plant and equipment in progress	3,655	2,609
Leased property, plant and equipment	298	321
PROPERTY, PLANT AND EQUIPMENT USED IN GENERATION AND OTHER TANGIBLE ASSETS OWNED BY THE GROUP	37,808	36,921

## 22.2

# Movements in property, plant and equipment used in generation and other tangible assets owned by the Group (excluding construction in progress and finance-leased assets)

(in millions of euros)	Land & Buildings	Nuclear power plants	Fossil-fired & hydropower plants	Networks s	Other installations, plant, machinery & equipment	Total
Gross values at 01.01.2006 (1)	11,694	44,710	13,373	1,719	6,068	77,564
Increases	105	33	695	42	298	1,173
Decreases	(220)	(208)	(99)	(5)	(192)	(724)
Translation adjustment	17	-	(26)	(1)	(14)	(24)
Changes in the scope of consolidation	183	318	302	62	588	1,453
Other movements	76	621	201	(240)	160	818
Gross values at 12.31.2006 (1)	11,855	45,474	14,446	1,577	6,908	80,260
Increases	306	866	718	773	886	3,549
Decreases	(336)	(221)	(49)	(64)	(140)	(810)
Translation adjustment	9	-	(162)	(33)	(37)	(223)
Changes in the scope of consolidation	131	-	(671)	170	20	(350)
Other movements	(47)	17	(266)	(45)	(432)	(773)
Gross values at 12.31.2007	11,918	46,136	14,016	2,378	7,205	81,653
Depreciation and impairment at 01.01.2006 (1)	(5,523)	(27,775)	(6,621)	(778)	(3,407)	(44,104)
Net depreciation	(339)	(1,020)	(688)	(61)	(391)	(2,499)
Disposals	114	167	85	2	176	544
Translation adjustment	(6)	-	_	-	(1)	(7)
Changes in the scope of consolidation	(12)	(151)	(110)	1	149	(123)
Other movements	10	(47)	(117)	69	5	(80)
Depreciation and impairment at 12.31.2006 (1)	(5,756)	(28,826)	(7,451)	(767)	(3,469)	(46,269)
Net depreciation	(308)	(1,160)	(609)	(146)	(418)	(2,641)
Disposals	258	182	40	58	120	658
Translation adjustment	(15)	-	21	(2)	31	35
Changes in the scope of consolidation	(29)	-	226	(71)	(4)	122
Other movements	66	1	187	(10)	53	297
Depreciation and impairment at 12.31.2007	(5,784)	(29,803)	(7,586)	(938)	(3,687)	(47,798)
Net values at 01.01.2006 (1)	6,171	16,935	6,752	941	2,661	33,460
Net values at 12.31.2006 (1)	6,099	16,648	6,995	810	3,439	33,991
NET VALUES AT 12.31.2007	6,134	16,333	6,430	1,440	3,518	33,855

<sup>(1)</sup> The figures published for 2006 have been restated to reflect changes in the presentation of property, plant and equipment in the assets (see notes 2.11, 3 and 4.2).

Following impairment tests, the Group records a net impairment loss of €79 million at December 31, 2007 (€161 million at December 31, 2006), on certain items of property, plant and equipment owned by the Group. Most of the assets concerned are part of EnBW's transmission network.



## 22.3

#### Finance lease obligations

The Group is a party to agreements classified as finance leases under IFRIC 4, which account for almost all of its finance lease commitments as lessor. These agreements mainly concern EDF Energy.

The Group is also bound by irrevocable finance-lease contracts for premises, equipment and vehicles used in the course of its business. The corresponding payments are subject to renegotiation at intervals defined in the contracts. The main companies concerned are Tiru and Sofilo.

At December 31, 2007, the total expenses and commitments for irrevocable finance-lease payments were as follows:

		12.31.2007			
	Total -		Maturity		
(in millions of euros)	Total	< 1 year	1 - 5 years	> 5 years	Total
Financial lease commitments as lessor	589	60	271	258	693
Financial lease commitments as lessee	246	20	138	88	394

# Note **23**

## Investments in companies accounted for under the equity method



Investments in associates are as follows:

		12.31	12.31.2006			
(in millions of euros)	Principal activity (1)	% voting rights held	Share of net equity	Share of net income	Share of net equity	Share of net income
Atel Group (2)	Р	24.8	671	102	626	112
Dalkia Holding	S	34.0	466	24	469	23
EVN	D	16.4	441	38	397	42
Estag	Р	20.0	365	34	352	31
SSE	D	49.0		-	219	26
Edenor	D			-	2	17
Other investments in associates	-		587	(30)	394	12
INVESTMENTS IN COMPANIES ACCOUNTED FOR UNDER THE EQUITY METHOD	-		2,530	168	2,459	263

<sup>(1)</sup> S = services, G = generation, D = distribution

The main changes in 2007 result from proportional consolidation of SSE from January 1, 2007, consolidation of seven companies in EnBW by the equity method, and impairment recorded in respect of the shares in the Metronet consortium, which are included in other investments in associates.

The financial position of the Metronet consortium, which carries out maintenance and upgrading work on 9 of London's 12 tube lines for London Underground Ltd (LUL), was affected by changes in specifications and the initial scope of the contract, and difficulties encountered in executing the work.

<sup>(2)</sup> The Atel Group comprises Atel Holding and Atel.

Consequently, as was their right under a clause in the contract with LUL, Metronet's shareholders decided in June 2007 to have the economic terms of the contract reviewed by an independent arbiter, with a view to gaining additional financing from LUL. The resulting additional financing awarded in mid-July was not sufficient to prevent Metronet entering into insolvency administration on July 18, 2007.

Although negotiations between the shareholders, the administrator and the client (Transport for London) have not yet reached a final agreement on the future contractual relationships between the parties, discussions are continuing constructively.

In view of this situation, the provision booked at June 30, 2007 remains in the accounts at December 31, 2007, for appropriate coverage of the risks to which EDF Energy considers itself exposed.

At December 31, 2006, the main published indicators concerning companies accounted for under the equity method were as follows:

(in millions of euros)	Total Assets	Total Liabilities (excluding Equity)	Sales	Net income
Atel	5,780	3,598	7,188	570
Dalkia holding (1)	7,065	4,972	6,155	172
EVN (2)	6,262	3,247	2,233	259
Estag	2,221	1,026	1,158	154

<sup>(1)</sup> Consolidated financial data including Dalkia Investissement and Dalkia International.

#### Note

# 24

### **Current and non-current financial assets**



<b>24.1</b> Breakdown between current and non-current financial assets	P.267
<b>24.2</b> Change in current and non-current financial assets other than derivatives	P.268
24.3 Details of financial assets	P.268
<b>24.4</b> Fair value of financial assets recorded at amortized cost	P.270
24.5 Investment commitments	P.270

## 24.1

#### Breakdown between current and non-current financial assets

Current and non-current financial assets break down as follows:

	12.31.2007			12.31.2006			
(in millions of euros)	Current	Non-current	Total	Current	Non-current	Total	
Financial assets carried at fair value with changes in fair value included in income	5,967	2	5,969	5,845	-	5,845	
Available-for-sale financial assets (1)	6,223	13,799	20,022	10,274	11,193	21,467	
Held-to-maturity investments (1)	68	459	527	255	187	442	
Positive fair value of hedging derivatives	1,667	632	2,299	128	328	456	
Loans and financial receivables (1)	951	913	1,864	508	1,386	1,894	
FINANCIAL ASSETS	14,876	15,805	30,681	17,010	13,094	30,104	

<sup>(1)</sup> Net of impairment (€374 million in 2007).

<sup>(2)</sup> Data as of September 30, 2007.



## 24.2

## Change in current and non-current financial assets other than derivatives

The variation in financial assets is as follows:

#### 24.2.1 At December 31, 2007

(in millions of euros)	12.31.2006	Increases	Decreases	Changes in fair value	Other	12.31.2007
Available-for-sale financial assets	21,467	11,496	(12,899)	286	(328)	20,022
Held-to-maturity investments	442	154	(36)	-	(33)	527
Loans and financial receivables	1,894	358	(281)	-	(107)	1,864

#### 24.2.2 At December 31, 2006

(in millions of euros)	12.31.2005	Increases	Decreases	Changes in fair value	Other	12.31.2006
Available-for-sale financial assets	11,727	14,802	(5,892)	737	93	21,467
Held-to-maturity investments	137	329	(39)	-	15	442
Loans and financial receivables	1,665	742	(368)	-	(145)	1,894

## 24.3

#### **Details of financial assets**

#### 24.3.1 Financial assets with changes in fair value included in income

(in millions of euros)	12.31.2007	12.31.2006
Derivatives - positive fair value	5,880	5,762
Fair value of derivatives held for trading (1)	89	83
FINANCIAL ASSETS CARRIED AT FAIR VALUE WITH CHANGES IN FAIR VALUE INCLUDED IN INCOME	5,969	5,845
(1) Portion classified as liquid assets.	80	73

The fair value of derivatives is mostly determined on the basis of listed prices and market information (see note 2.15.1.6.2).

#### 24.3.2 Available-for-sale financial assets

		12.31.2007			12.31.2006		
(in millions of euros)	Equities *	Debt securities	Total	Equities *	Debt securities	Total	
Dedicated assets of EDF	5,050	3,554	8,604	4,315	1,942	6,257	
Liquid assets	1,349	4,253	5,602	3,876	6,205	10,081	
Other	4,447	1,369	5,816	3,997	1,132	5,129	
AVAILABLE-FOR-SALE FINANCIAL ASSETS	10,846	9,176	20,022	12,188	9,279	21,467	

<sup>\*</sup> Equities and investment funds.

At December 31, 2007, 96.43% of the portfolio is valued by reference to prices quoted or listed on an active market.

In view of the monetary crisis in the second half of the year, some liquid assets were redirected into short-term cash investments.

During 2007, changes in the fair value of available-for-sale financial assets were recorded in equity over the period as follows:

(in millions of euros)	Gross changes in fair value recorded in equity <sup>(1)</sup>	Taxes related to gross changes in fair value recorded in equity	Changes after taxes in fair value recorded in equity (1)	Gross changes in fair value transferred to income (2)	Taxes related to changes in fair value transferred to income	Changes after taxes in fair value to income <sup>(2)</sup>
Available for sale financial assets - securities	684	(111)	573	258	(55)	203
Available for sale financial assets - debts	(52)	20	(32)	(4)	1	(3)
Liquid assets	(73)	25	(48)	-	-	-
AVAILABLE-FOR- SALE FINANCIAL ASSETS	559	(66)	493	254	(54)	200

<sup>(1) + / ():</sup> increase/decrease in equity.

During 2006, €537 million of changes in the fair value, net of tax, of available-for-sale financial assets were recorded in equity. An amount of €21 million net of tax was transferred from equity to income in connection with disposals of these assets.

#### 24.3.2.1 EDF'S DEDICATED ASSET PORTFOLIO

EDF's dedicated asset portfolio consists of financial assets dedicated to covering long-term expenses related to nuclear plant decommissioning and the back-end nuclear cycle (see note 31.5.3). These assets are clearly identifiable and managed separately from the company's other financial assets and investments.

A long-term management strategy is applied for these dedicated assets, which comprise diversified bond, monetary and equity instruments in accordance with the strategic allocation defined by EDF's Board of Directors and reviewed at regular intervals.

The management and governance of these funds comply with the Law of June 28, 2006 on secure financing of nuclear expenses.

Certain dedicated assets take the form of equity securities and bonds currently held and managed directly by EDF and recorded as such in its balance sheet. The rest comprise specialized collective investment funds on

leading international markets, managed by independent French or foreign asset management companies selected on the basis of solicited proposals or through a call for bids. They cover various segments of the bond or equity markets, with EDF aiming to achieve the broadest diversification possible, in the form of open-end funds and "reserved" funds established by the Group solely for its own use.

The reserved funds are assigned performance objectives linked to a benchmark stock market index, within strict risk limits expressed in the form of tracking error. As EDF does not intervene in the operational management of funds within the objectives set out in the investment agreements, line-by-line consolidation of reserved funds would not reflect the intended business objective. These funds fully constitute financial assets, for which the net asset value represents market value. They are therefore carried in the balance sheet at net asset value as a component of available-for-sale financial assets.

<sup>(2) + / ():</sup> increase/decrease in net income.



The table below presents changes in the fair value of the dedicated asset portfolio, with particular details of changes in the net asset value of reserved funds:

	Fair value	Fair value
(in millions of euros)	12.31.2007	12.31.2006
North American equities	404	494
European equities	416	464
Japanese equities	30	110
Worldwide bonds	644	480
Total Reserved investment funds	1,494	1,548
Securities	470	283
Equities-based unit trusts	2,856	1,930
Equities	3,326	2,213
Securities	3,554	1,942
Short-term unit trusts	225	196
Bonds	3,779	2,138
Other funds	5	358
Total Other financial investments	7,110	4,709
DEDICATED INVESTMENT FUNDS	8,604	6,257

The cash allocation to dedicated assets for 2007 amounts to €2,397 million (€2,700 million for 2006), following the Board of Directors' decision of September 2005 to establish dedicated assets at an accelerated pace until 2010.

Withdrawals totaling €249 million were made to cover EDF's cash needs to the extent of reversals of provisions for disbursements in connection with the related obligations.

#### **24.3.2.2** LIQUID ASSETS

Liquid assets are financial assets consisting of funds or interest rate instruments with initial maturity of over three months, that are readily convertible into cash regardless of their maturity, and are managed according to a liquidity-oriented policy.

EDF's monetary investment funds included in liquid assets amount to €1,349 million (€3,771 million at December 31, 2006).

#### 24.3.2.3 OTHER SECURITIES

At December 31, 2007, other securities mainly include:

- At EnBW, €1,356 million in available-for-sale assets (debt instruments, including €1,044 million of reserved funds) and €1,110 million in available-for-sale assets (equities, including €619 million of reserved funds);
- At EDF, shares in Areva (€673 million).

## 24.4

#### Fair value of financial assets recorded at amortized cost

	12.31.	2007	12.3	1.2006
(in millions of euros)	Fair value	Net book value	Fair value	Net book value
Held-to-maturity investments	527	527	442	442
Loans and financial receivables	1,864	1,864	1,890	1,894
FINANCIAL INSTRUMENTS OTHER THAN DERIVATIVES	2,391	2,391	2,332	2,336

## 24.5

#### **Investment commitments**

At December 31, 2007, commitments related to investments are as follows:

		12.31.2006				
	Total	Maturity			Total	
(in millions of euros)	iotat	< 1 year	1 - 5 years	> 5 years	iotat	
Investments commitments	2,752	374	2,378	-	2,780	
Other financing commitments given	217	112	104	1	185	
Other financing commitments received	70	28	42	-	64	

#### 24.5.1 Investment commitments

- Commitment granted to OEW by EDF International relating to EnBW under a shareholder agreement concluded on July 26, 2000: OEW, which jointly controls EnBW with EDF, has a put option on all or some of its Subjected Shares (25% of the capital of EnBW), exercisable at any time until December 31, 2011 at the price of €37.14 per share. This option is included in the EDF Group's off balance sheet commitments at December 31, 2007 at the value of €2,322 million.
- Various options or agreements entered into by EDF International (€225 million) and EnBW (€126 million) in respect of shares in various companies in the energy generation industry.
- Commitments made by EDEV SA in relation to *EDF Energies Nouvelles*: In connection with EDF EN's admission to the regulated market on November 28, 2006, a shareholder agreement and a further agreement concerning EDF EN were signed on July 17, 2006 between EDF and Edev (hereafter referred to as "the EDF Group") and Mr Pâris Mouratoglou and the Luxembourg company SIIF *Société Internationale d'Investissements Financiers* (hereafter referred to as "the Mouratoglou Group"). An amendment to this agreement was also signed between the two Groups on November 10, 2006.

The outstanding commitments made under these agreements by the EDF Group and the Mouratoglou Group applicable at December 31, 2007 are as follows:

#### - Liquidity commitment

The EDF Group and the Mouratoglou Group will refrain from any direct or indirect acquisition of shares that would reduce the publicly traded portion of the capital of EDF EN to below 95% of that portion. This commitment by the EDF Group would expire should the Mouratoglou Group come to own less than 10% of the capital of EDF EN.

#### - Preferential right

In the event that the Mouratoglou Group plans to transfer some or all of its shares, the EDF Group will benefit from a preferential right to purchase those shares. This right will be exercised differently depending on whether the beneficiary of the intended share transfer is one or more financial institutions (for placement with institutional investors or on the market), or other third parties.

If the EDF Group does not exercise its preferential right, the Mouratoglou Group may proceed with the intended transfer.

This preferential right shall not apply in certain circumstances defined in the agreement.

- Provisions concerning the Mouratoglou Group's investment Should the Mouratoglou Group's investment fall below 10% of the capital of EDF EN, subject to compliance with its lockup commitments related to the IPO, EDEV would grant the Mouratoglou Group a put option for three months from the date at which the investment falls below 10%, covering all the Mouratoglou Group's residual investment in EDF EN, at a per-share price equal to the average volume-weighted closing price of the EDF EN share over the 60 trading days preceding notification of exercise of the option; this price cannot be more than 10% higher than the share's last closing price before such notification. If the Mouratoglou Group does not exercise this put option, EDEV will have a call option over all shares held by the Mouratoglou Group for a three-month period starting upon the expiry of the exercise period for the above put option, at a per-share price identical to the price defined for the put option; this price cannot be more than 10% lower than the share's last closing price before notification.

These two options will automatically expire on December 31, 2015.

#### • Agreement with Veolia Environnement

Veolia Environnement has granted EDF a call option on all its Dalkia shares in the event that a competitor of EDF takes control over Veolia Environnement. EDF has also granted Veolia Environnement a call option over all its Dalkia shares in the event that the status of EDF should change and a competitor of Veolia Environnement, individually or with other parties, should take control over EDF. If the parties fail to agree on the sale price of the shares, it is to be fixed by an independent expert

• In connection with the formation of *EDF Investissement Groupe*, C3 signed unilateral promises with NBI to buy and sell shares in investments held respectively by NBI and C3. NBI thus allows C3 to purchase NBI's investment at any time based on the company's net asset value until 2030, and to sell its total investment to NBI based on net asset value during the 5 years following formation of the company.

#### 24.5.2 Other investment commitments

These commitments primarily concern investment guarantees provided by Dalkia International (€54 million at December 31, 2007, €66 million at December 31, 2006), EnBW (€74 million at December 31, 2007, €71 million at December 31, 2006) and ECW (€5 million at December 31, 2007, €25 million at December 31, 2006).

Through its subsidiaries *EDF Energies Nouvelles*, Sofilo and Dalkia International, the EDF Group also received various commitments amounting to a total of €70 million in 2007 (€64 million in 2006).



# Note **25**

### Inventories, including work-in-process



The carrying value of inventories, broken down by nature, is as follows:

(in millions of euros)	Nuclear fuel	Other fuel	Other raw materials	Work in progress for production of goods and services	Other inventories	Total inventories
Gross value	5,363	724	1,059	358	342	7,846
Provisions	(218)	(4)	(169)	(24)	-	(415)
Net value at 12.31.2006	5,145	720	890	334	342	7,431
Gross value	6,371	1,056	942	286	226	8,881
Provisions	(11)	(4)	(166)	(21)	(1)	(203)
NET VALUE AT 12.31.2007	6,360	1,052	776	265	225	8,678

The long-term portion (more than one year) mainly concerns nuclear fuel inventories amounting to €4,344 million (€3,884 million at December 31, 2006).

The value of EDF Trading's inventories stated at market value is €458 million.

For EDF, the increase in nuclear fuel inventories in 2007 originates in the new definition of spent fuel in the reactor set out in the decision of March 21, 2007 (see note 31.2).

# 26

## Note Trade receivables



Details of net trade receivables are as follows:

(in millions of euros)	12.31.2007	12.31.2006
Trade receivables - gross value excluding EDF Trading	15,379	14,815
Trade receivables EDF Trading - gross value	1,112	1,303
Provisions	(391)	(402)
Trade receivables - net value	16,100	15,716

Most trade receivables mature within one year.

### Other receivables



Details of other receivables are as follows:

(in millions of euros)	Current accounts receivables	Prepaid expenses	Other receivables	Total
Gross values at 12.31.2006	240	543	3,480	4,263
Provisions at 12.31.2006	(17)	-	(20)	(37)
Net values at 12.31.2006	223	543	3,460	4,226
Gross values at 12.31.2007	243	492	4,551	5,286
Provisions at 12.31.2007	(12)		(31)	(43)
NET VALUES AT 12.31.2007	231	492	4,520	5,243

The majority of other receivables are due within one year.

They also include €159 million of loans by Domofinance, a credit institution that makes loans to finance works and installations contributing to energy control.

The rise between 2006 and 2007 mainly results from the €473 million increase in CSPE receivables and changes in the scope of consolidation.

# Note

### Cash and cash equivalents



Cash and cash equivalents comprise cash in hand and at bank and investments in money market instruments. Cash and cash equivalents as stated in the cash flow statements include the following amounts recorded in the balance sheet:

(in millions of euros)	12.31.2007	12.31.2006
Cash	1,338	1,265
Cash equivalents	4,498	1,806
Financial current accounts	199	237
CASH AND CASH EQUIVALENTS	6,035	3,308

In view of the monetary crisis in the second half of the year, some liquid assets were redirected into short-term cash investments.

<sup>&</sup>quot;Other receivables" mainly comprise amounts due to the French State and public authorities.



#### Held-for-sale assets and liabilities

29



Held-for-sale assets and liabilities mainly concern:

- At December 31, 2007, Soprolif, thermoelectric plants (Edison Group) and lighting companies (EDF Energy);
- At December 31, 2006, Serene (Edison Group) and two EnBW Group entities.

# 30 Note

### **Equity**



<b>30.1</b> Share capital	P.274
30.2 Treasury shares	P.275
30.3 Dividends	P.275
30.4 Basic earnings per share and diluted earnings per share	P.275
30.5 Capital management	P.276

## 30.1 Share capital

There were no changes between 2006 and 2007 in EDF's share capital.

At December 31, 2007, the share capital amounted to  $\leqslant$ 911,085,545, comprising 1,822,171,090 fully subscribed and paid-up shares with nominal value of  $\leqslant$ 0.50 each, owned 84.8% by the French State (87.3% at December 31, 2006), 13.3% by the public (institutional and private investors) and 1.9% by current and retired Group employees.

On December 3, 2007, the French State sold 2.5% of the capital of EDF to French and international institutional investors.

In application of article 11 of the Law of August 6, 1986 and article 26 of the Law of August 9, 2004, following this sale by the State, a preferential offer will be made to current and retired employees of EDF and certain French and foreign subsidiaries. This offer will concern a number of existing shares representing 15% of the total number of shares put on the market, i.e. 0.4% of the capital. The schedule and terms of this employee offering remain to be defined, but it will be implemented in 2008.

## 30.2 Treasury shares

A share repurchase program authorized by the General Shareholders' meeting of June 9, 2006 was implemented by the Board of Directors, within the limits of 10% of the total number of shares making up the Company's capital. The initial duration of the program is 18 months, renewable by tacit agreement for 12 months.

Under the share repurchase program, for which a liquidity contract exists

as required by the market regulator AMF, 557,339 shares were acquired during 2007 for a total of  $\le$ 38 million, and 462,579 shares were sold for a total of  $\le$ 32 million.

At December 31, 2007, treasury shares deducted from consolidated equity represent 129,503 shares with total value of €9 million.

## 30.3 Dividends

The General Shareholders' meeting of May 24, 2007 decided to distribute a dividend of €1.16 per share, paid out on June 4, 2007. The total dividend distributed amounts to €2,113 million.

At the Board of Directors' meeting of November 7, 2007, it was decided to pay interim dividends on November 30, 2007 of €0.58 per share (total distribution: €1,057 million) in respect of 2007.

## 30.4

#### Basic earnings per share and diluted earnings per share

The diluted earnings per share is calculated by dividing the Group's share of net income, corrected for dilutive instruments, by the weighted average number of potential shares outstanding over the period after elimination of treasury shares

At December 31, 2007, there are no longer any dilutive instruments in

the EDF Group.

The following table shows the reconciliation of the basic and diluted earnings used to calculate earnings per share, and the variation in the weighted average number of shares used in calculating basic and diluted earnings per share:

	2007	2006
Net income attributable to ordinary shares	5,618	5,605
Dilutive effect	-	(6)
Net income used to calculate diluted earnings per share (in millions of euros)	5,618	5,599
Number of ordinary shares outstanding at January 1	1,822,136,347	1,822,171,090
Change in number of shares sold during the period (prorata temporis)	(57,032)	(100,999)
Average weighted number of ordinary shares outstanding at end of period	1,822,079,315	1,822,070,091
EDF's dilutive effect	-	-
Average weighted number of diluted shares outstanding at end of period	1,822,079,315	1,822,070,091
Earnings per share in euros:		
NET EARNINGS PER SHARE (in euros)	3.08	3.08
DILUTED EARNINGS PER SHARE (in euros)	3.08	3.07



## 30.5 Capital management

Article 24 of the Law of August 9, 2004 requires the State to hold more than 70% of the capital of EDF at all times.

Equity has increased since the IPO of November 2005, largely due to the profits of 2006 and 2007 net of dividends paid out, and after inclusion of changes in the fair value of financial instruments taken to equity. It

amounts to €28,796 million at December 31, 2007 compared to €24,799 million at December 31, 2006.

As a result of this increase, the solvency ratio consisting of the net financial debt to capital employed, calculated by reference to the net indebtedness (see note 33.3) and equity including minority interests, has decreased from 38% at December 31, 2006 to 36% at December 31, 2007.

#### Note

#### **Provisions**

31



<b>31.1</b> Breakdown between current and non-current provisions	P.276
<b>31.2</b> Impact of application of the Law of June 28, 2006 on provisions for the back-end nuclear cycle and provisions for decommissioning and last cores booked by EDF in France	P.277
31.3 Provisions for back-end nuclear cycle	P.278
<b>31.4</b> Provisions for decommissioning and last cores	P.280
<b>31.5</b> Secure financing of long-term obligations for EDF's nuclear installations	P.283
<b>31.6</b> Provisions for employee benefits	P.284
31.7 Other provisions and contingent liabilities	P.287

## 31.1

#### Breakdown between current and non-current provisions

The breakdown between current and non-current provisions is as follows:

		12.31.2007			12.31.2006	
(in millions of euros)	Current	Non-current	Total	Current	Non-current	Total
Provisions for back-end nuclear cycle	756	16,699	17,455	745	14,636	15,381
Provisions for decommissioning and last cores	557	13,097	13,654	218	13,606	13,824
Provisions for employee benefits	1,523	12,240	13,763	1,551	12,377	13,928
Other provisions	1,860	2,002	3,862	1,504	2,505	4,009
PROVISIONS	4,696	44,038	48,734	4,018	43,124	47,142

## 31.2

# Impact of application of the Law of June 28, 2006 on provisions for the back-end nuclear cycle and provisions for decommissioning and last cores booked by EDF in France

For provisions related to the operation of nuclear plants, the financial statements at December 31, 2007 reflect application of the Law of June 28, 2006 and its implementing provisions (see notes 4.3 and 5.1.1.1) leading to the following main differences in presentation and valuation:

### Management expenses for waste resulting from decommissioning of nuclear plants

The decree of February 23, 2007 and the decision of March 21, 2007 require expenses for the long-term management of packages of radioactive waste resulting from decommissioning to be separated from actual decommissioning expenses.

Consequently, provisions for the long-term management of radioactive waste resulting from decommissioning operations have been reclassified and are now included in the "Provision for long-term radioactive waste management" instead of "Decommissioning provisions".

EDF's share of the expenses related to fuel in the Phénix plant included in the decommissioning provisions was also reclassified to the appropriate item, i.e. "Provision for spent fuel management".

These reclassifications total €850 million at December 31, 2007, and have no impact on the net income.

### Expenses for spent fuel management and the long-term management of waste resulting from burnt fuel

Calculation of the provisions for the back-end nuclear cycle reflects the new notion of "loaded fuel", defined in the decision of March 21, 2007 as being all the fuel in the reactor, spent or otherwise.

Consequently, additional provisions for spent fuel management and the long-term management of waste resulting from this fuel have been booked for the portion of fuel not yet spent, with a corresponding increase in the value of the fuel included in inventories. This has no impact on 2007 income.

Future expenses for management of spent fuel and management of the corresponding radioactive waste continue to be recognised in the income statement as the fuel is spent and the inventories are consumed.

#### - New definition of the operating cycle

The decree of February 23, 2007 states that the operating fuel cycle concerns industrial facilities that exist or are under construction. Fuels with high plutonium content (MOX fuels and at Creys-Malville) will not be recycled in the reactors currently in operation or under construction, but in future 4<sup>th</sup>-generation facilities. Without prejudging the way the 4<sup>th</sup>-generation facilities are to be developed, provisions for this type of fuel are now estimated based on a conservative scenario of long-term and direct storage of fuel, and reclassified as provisions for long-term radioactive waste management. This new scenario leads to significantly higher costs, but spread over a longer period. As a result, after discounting, provisions decreased by €394 million.

### Inclusion of the notion of "site operator" in estimation of expenses

Under the decision of March 21, 2007, EDF as operator of the Brennilis site, must establish provisions to cover the full expenses of decommissioning the plant and managing fuel and waste. The partner's share is recorded in receivables and there is no impact on 2007 net income.

### Obligations related to ANDRA studies and research and local support measures

Based on the instructions of the law and the information available, in 2006 EDF revised its provisions to reflect the obligations related to ANDRA research and regional support projects.

At December 31, 2007, the relevant provisions were adjusted upward by €132 million based on the latest information available.

The impacts of the Law of June 28, 2006 and its implementing provisions published in 2007 lead to a €885 million increase in provisions at December 31, 2007, with a corresponding increase in inventories and receivables (€1,147 million) and operating income of €262 million over the year.

The effect of the Law of June 28, 2006 was reflected in the 2006 financial statements by a €373 million increase in provisions, with an equivalent negative impact on operating income.



## 31.3

### Provisions for back-end nuclear cycle

The movement in provisions for the back-end nuclear cycle breaks down as follows:

#### - At December 31, 2007:

	12.31.2006	Increases	Decr	Decreases		Other	12.31.2007
(in millions of euros)			Utilizations	Reversals (1)	of the Law of June 28, 2006	changes	
Provisions for spent fuel management	10,512	1,032	(625)	(104)	221	(25)	11,011
Provisions for long-term radioactive waste management	4,869	334	(145)	(53)	1,414	25	6,444
PROVISIONS FOR BACK-END NUCLEAR CYCLE	15,381	1,366	(770)	(157)	1,635		17,455
EDF	14,602	1,232	(713)	(96)	1,635	-	16,660
other	779	134	(57)	(61)	-	-	795

<sup>(1)</sup> For France, this column reflects the effects of changes in estimate.

#### - At December 31, 2006:

	12.31.2005	Increases	Decre	ases	Other	12.31.2006
(in millions of euros)			Utilizations	Reversals (1)	changes	
Provisions for reprocessing of nuclear fuel	10,336	1,057	(681)	(220)	20	10,512
Provisions for removal and storage of the resulting waste	e 4,416	640	(79)	(88)	(20)	4,869
PROVISIONS FOR END OF NUCLEAR FUEL CYCLE	14,752	1,697	(760)	(308)	-	15,381

<sup>(1)</sup> For France, this column reflects the effects of changes in estimate.

#### 31.3.1 EDF's provisions for the back-end nuclear cycle in France

EDF's provisions at December 31, 2007 are calculated in compliance with the instructions of the Law of June 28, 2006 and its implementing provisions (see note 31.2).

	12.31.2006	Increases	Decre	ases	Impact of the	12.31.2007
			Utilizations	Reversals (1)	Law of	
(in millions of euros)					June 28, 2006	
Provisions for spent fuel management	10,202	1,004	(602)	(66)	221	10,759
Provisions for long-term radioactive waste management	4,400	228	(111)	(30)	1,414	5,901
PROVISIONS FOR BACK-END NUCLEAR CYCLE	14,602	1,232	(713)	(96)	1,635	16,660

<sup>(1)</sup> For France, this column reflects the effects of changes in estimate.

The corresponding expenses are estimated based on the economic conditions of the year-end, and spread over a forecast disbursement schedule. A provision is booked equivalent to the discounted value for the year (assuming 2% inflation and a 5% discount rate):

	12.31	.2007	12.31.2006		
(in millions of euros)	Costs based on economic conditions at year-end	Amounts in provisions at present value	Costs based on economic conditions at year-end	Amounts in provisions at present value	
For spent fuel management	16,209	10,759	15,413	10,202	
For long-term radioactive waste management	20,048	5,901	12,554	4,400	
BACK-END NUCLEAR CYCLE	36,257	16,660	27,967	14,602	

Changes in the provisions calculated under year-end economic conditions mainly result from the inclusion in 2007 of the effects of the implementing provisions for the Law of June 28, 2006:

- Additional expenses corresponding to the portion of fuel not yet spent, included in the fuel in the reactor;
- Higher costs for spent fuels with high plutonium content;
- Reclassifications into this category of the management expenses for radioactive waste resulting from decommissioning, which were previously included in decommissioning expenses.

#### **31.3.1.1** PROVISIONS FOR SPENT FUEL MANAGEMENT

This includes the following:

- Processing of spent fuel, which includes its transportation from EDF's production centers to the Areva plant at La Hague, reception, storage and processing (including conditioning and storage of waste).
  - Spent fuel is used fuel that can be recycled in existing facilities, including the portion in reactors but not yet burnt.
  - The expenses are estimated based on the EDF-Areva agreement covering the period 2001-2007 signed on August 24, 2004, and the same assumptions are applied for the quantities that will be reprocessed after 2007, based on reprocessing forecasts;
- Oxidation and storage of uranium obtained from reprocessed fuel that is not immediately recycled,
  - These expenses are estimated based on EDF's best estimates, taking into account the ongoing EDF-Areva negotiations;
- EDF's contribution towards final shutdown and decommissioning costs for the La Hague reprocessing plant and its share of the cost of recovering and conditioning old waste resulting from fuel reprocessing on the La Hague site. These amounts remain in this provision until completion of negotiations with Areva, which should lead to payment of a one-time sum, the amount and terms of which have not yet been defined;
- $\bullet$  EDF's share of the management costs for fuel from the Phénix plant.

For fuel in reactors but not yet burnt, provisions are booked against an increase in the value of the fuels included in inventories.

### 31.3.1.2 PROVISIONS FOR LONG-TERM RADIOACTIVE WASTE MANAGEMENT

This includes future expenses for:

- Removal and storage of radioactive waste resulting from decommissioning of regulated nuclear installations operated by EDF;
- Removal and storage of radioactive waste resulting from spent fuel processing at La Hague;
- Long-term and direct storage of fuel that cannot be recycled in existing installations (MOX fuel and fuel at Creys-Malville);
- EDF's share of the costs of studies, coverage, shutdown and surveillance of storage centres:
- existing centres, for very low-level waste, and low and medium-level waste,
- new centres to be opened, for long-life low-level waste and long-life medium and high-level waste.

The volumes of waste concerned by provisions include packages of existing waste and all waste to be conditioned, resulting from decommissioning or spent fuel processing at La Hague (based on all fuel in reactors at December 31, burnt or otherwise).

These volumes are regularly reviewed, in keeping with the data declared for the purposes of the ANDRA's national waste inventory.

For waste resulting from decommissioning of plants in operation, the accounting treatment is identical to the treatment of decommissioning expenses (see note 31.4.1.2): an asset corresponding to the provision is recognized under the accounting policies described in note 2.11.

For waste resulting from decommissioning of the Brennilis plant, the accounting treatment is identical to the treatment of decommissioning expenses. This provision is recorded for its total amount, and the share to be financed by the partner is included in accrued revenues.

For future waste that will result from fuel currently in reactors but not yet burnt, provisions are booked against an increase in the cost of the fuels included in inventories.

The provision for long-life medium and high-level waste is the largest component of the provisions for long-term radioactive waste management. The French Law of June 28, 2006 on the sustainable management of radioactive materials and waste has confirmed EDF's assumption of geological storage. Provisions are based on that assumption.



Since 2005, the gross value and disbursement schedules for forecast expenses have been based on a scenario of industrial geological waste storage, following conclusions presented in the first half of 2005 by the task force set up by the French department for Energy and Raw Materials (*Direction Générale de l'Energie et des Matières Premières* - DGEMP) comprising members representing the relevant government departments (DGEMP, APE and Budget Department), ANDRA and the producers of waste (EDF, Areva, CEA). The approach applied by EDF to the working party's conclusions is reasonable and coherent with information available internationally.

Apart from effects related to normal operation and the effects of the Law of June 28, 2006 and its implementing provisions as described in note 31.2, the overall effect on income of other adjustments made in 2007 is non-significant. Most of these adjustments concern reviews of assumptions, reflected in a decrease in EDF's share of indirect estimated costs for the operation of the storage center for long-life medium and high-level waste and a rise in storage costs for long-life low-level waste.

## **31.3.2** Provisions for the subsidiaries' back-end nuclear cycle

These provisions, amounting to €795 million at December 31, 2007 (€779 million at December 31, 2006) mainly cover the cost of eliminating the EnBW Group's burnt fuel and radioactive waste.

EnBW's provisions are based on obligations prescribed by law or associated with its operating license.

As no civil law agreement had been signed at December 31, 2007, provisions are estimated on the basis of independent expert assessments and cost valuations (non-contractual nuclear obligations).

For removal of fuels, non-contractual obligations mainly concern conditioning for final storage, transportation, acquisition of containers for temporary storage, and final storage. Provisions materialized in civil law agreements (contractual nuclear obligations) for removal of fuels mainly concern costs for reprocessing of spent fuel, decentralized temporary storage near the plant, centralized temporary storage on the Gorleven and Ahaus sites, and transport and acquisition costs for containers.

Since July 1, 2005, end-of-cycle fuels have been confined within the site of the plant for temporary storage before transfer to the final storage site operated by the German state. The provisions for this storage are calculated based on criteria defined by German government-approved bodies. The discount rate applied is 5.5%.

## 31.4

#### **Provisions for decommissioning and last cores**

The change in decommissioning and last core provisions breaks down as follows:

#### - At December 31, 2007:

	12.31.2006	Increases	<u>Decreases</u> Im		Impact	Other	12.31.2007
(in millions of euros)			Utilizations	Reversals (i)	of the Law of June 28, 2006	changes	
Provisions for decommisioning	12,139	686	(168)	(26)	(750)	52	11,933
Provisions for last cores	1,685	88	-	(52)	-	-	1,721
PROVISIONS FOR DECOMMISSIONING AND LAST CORES	13,824	774	(168)	(78)	(750)	52	13,654
- of which EDF (corporate financial statements)	12,315	689	(149)	(52)	(750)	42	12,095
- of which subsidiaries and joint ventu	ires 1,509	85	(19)	(26)	-	10	1,559

(1) For France, this column reflects the effects of changes in estimate.

#### - At December 31, 2006:

	12.31.2005	Increases	Decreases		Other	12.31.2006
(in millions of euros)			Utilizations	Reversals	changes	
Provisions for decommisioning	11,518	632	(150)	(28)	167	12,139
Provisions for last cores	1,618	81	-	(14)	-	1,685
PROVISIONS FOR DECOMMISSIONING AND LAST CORES	13,136	713	(150)	(42)	167	13,824

#### 31.4.1 Provisions for decommissioning and last cores (EDF – France)

The change in EDF's decommissioning and last core provisions in France breaks down as follows:

	12.31.2006	Increases	Decreases		Impact	Other	12.31.2007
(in millions of euros)			Utilizations	Reversals (1)	of the Law of June 28, 2006	changes	
Decommissioning provisions for fossil-fired power plants	308	86	(16)	-	-	42	420
Decommissioning provisions for nuclear power plants	10,338	519	(133)	-	(750)	-	9,974
Provisions for last cores	1,669	84	-	(52)	-	-	1,701
PROVISIONS FOR DECOMMISSIONING AND LAST CORES	12,315	689	(149)	(52)	(750)	42	12,095

<sup>(1)</sup> For France, this column shows the sum of changes in estimate.

The corresponding expenses are estimated based on the economic conditions of the year-end, and spread over a forecast disbursement schedule. A provision is booked equivalent to the discounted value at the year-end (assuming 2% inflation and a 5% discount rate):

	12.31	.2007	12.31.2006			
(in millions of euros)	Costs based on economic conditions at year-end	Amounts in provisions at present value	Costs based Amounts on economic in provisions conditions at present value at year-end			
Decommissioning provisions for fossil-fired power plants	602	420	447 308			
Decommissioning provisions for nuclear power plants	19,792	9,974	21,165 10,338			
Provisions for last cores	3,594	1,701	3,477 1,669			
PROVISIONS FOR DECOMMISSIONING AND LAST CORES	23,988	12,095	25,089 12,315			

Changes in the provisions calculated under year-end economic conditions mainly result from reclassification in 2007 of provisions for the expenses of managing radioactive waste resulting from decommissioning as provisions for the long-term radioactive waste management, in application of the Law of June 28, 2006 and its implementing provisions.



### 31.4.1.1 DECOMMISSIONING PROVISIONS FOR EDF'S FOSSIL-FIRED POWER PLANTS IN FRANCE

The expenses related to decommissioning of fossil-fired power plants are determined according to regularly updated studies based on estimated future costs, measured by reference to the charges recorded on past operations and the most recent estimates for plants still in operation.

For plants still in operation, an asset is recorded against the provision under the principles presented in note 2.11.

Following revision of the assumptions concerning certain decommissioning work, provisions have increased.

### **31.4.1.2** DECOMMISSIONING PROVISIONS FOR EDF'S NUCLEAR POWER PLANTS

These provisions concern the decommissioning of pressurized water reactor (PWR) nuclear power plants currently in operation and nuclear power plants that have been permanently shut down.

### (a) For nuclear power plants currently in operation (PWR plants with 900 MW, 1,300 MW and N4 reactors):

A study undertaken in 1991 by the French Ministry of Trade and Industry estimated a benchmark cost, confirming the assumptions defined in 1979 by the PEON commission, estimating decommissioning costs (including long-term management of waste) at approximately 15% of investment expenditure as a ratio to net continuous power. This estimate was in turn confirmed by further studies focusing on a specific site, carried out in 1999. The underlying assumption is that once decommissioning is complete, the sites will be returned to their original state and the land reused.

The estimated schedule for future disbursements is based on the decommissioning plans drawn up by EDF experts, which take into account all known statutory and environmental regulations applicable, together with an uncertainty factor inherent to the fact that payments will only be made in the long term.

At December 31, 2007, in accordance with the Law of June 28, 2006 (see note 31.2), the management expenses for radioactive waste resulting from decommissioning operations are included in long-term management of packages of waste, rather than in plant decommissioning expenses as previously. The total present value of the obligations concerning decommissioning of nuclear power plants is covered by a provision.

An asset corresponding to the provision is recognized under the accounting policies described in note 2.11.

An asset is also recorded in the form of accrued revenues to recognize the share of decommissioning costs for the Cattenom 1-2 and Chooz B 1-2 PWR plants to be borne by foreign partners, in proportion to their investment.

## (b) For permanently shut-down nuclear power plants (first-generation UNGG power plants and other plants including Creys-Malville):

The provision is based on the cost of work already completed and on studies, quotations and a comparison made by EDF. Forecast disbursements, based on internally-prepared schedules, are adjusted to reflect

inflation, then discounted.

At December 31, 2007, in accordance with the Law of June 28, 2006 (see note 31.2), the management expenses for radioactive waste resulting from decommissioning operations are included in long-term management of packages of waste, rather than in plant decommissioning expenses as previously.

EDF, as operator of the Brennilis site, has established a provision to cover the full expense of decommissioning the plant; the partner's share is recorded in the assets under accrued revenues.

Decommissioning provisions also cover EDF's share of the decommissioning costs for the Phénix plant.

#### 31.4.1.3 PROVISION FOR LAST CORES

For EDF, this provision covers expenses related to the future loss on unused fuel following the final reactor shutdown. It comprises two types of expenses:

- Write-down of the inventory of fuel in the reactor that will not be totally burnt when the reactor is shut down, valued at the average price of components in inventories at November 30, 2007;
- The cost of fuel reprocessing and the corresponding waste disposal and storage costs for fuel not yet burnt at the time the plant shuts down.
   These costs are valued based on parameters at December 31, 2007 for provisions for spent fuel management and long-term radioactive waste management.

Since this provision relates to an obligation that existed at the commissioning date of the nuclear unit containing the core, all costs are fully covered by provision and an asset associated with the provision is recognized under the accounting policies described note 2.11.

## 31.4.2 Provision for decommissioning and last cores (subsidiaries)

The subsidiaries' decommissioning obligations concern the non-nuclear power plants in Europe, and EnBw's nuclear power plants. These provisions amount to €1,559 million at December 31, 2007 (€1,509 million at December 31, 2006).

#### - Decommissioning of the EnBW Group's nuclear plants

EnBW's provisions are based on obligations prescribed by law or associated with its operating license.

As no civil law agreement had been signed at December 31, 2007, provisions are estimated on the basis of independent expert assessments and cost valuations (non-contractual nuclear obligations). This particularly concerns costs expected in connection with the decommissioning: post-operating procedures, dismantling and removal of nuclear installations, and final storage. Provisions already materialized in civil law agreements (contractual nuclear obligations) mainly concern costs of personnel involved in the decommissioning.

The provision booked covers the full present value of the decommissioning obligations. The estimated schedule for future disbursements, and the future costs, are based on the decommissioning plans drawn up by external experts, which take into account all known statutory and environmental regulations currently applicable in Germany. The costs are calculated on the assumption of direct decommissioning of the plants.

## **31.5** Secure financing of long-term obligations for EDF's nuclear installations

#### 31.5.1 Discount rate

EDF applies a discount rate of 5% in calculating its provisions, together with assumed inflation of 2%, resulting in an effective rate of close to 3%.

#### - Calculation of the discount rate

The discount rate is determined based on long series data for a sample of bonds with maturities as close as possible to that of the liability. However, some expenses covered by these provisions will be disbursed over periods significantly longer than the duration of instruments generally traded on the financial markets.

The assumption of the nominal rate is currently appropriate for the duration of nuclear commitments, especially in view of the French 2055 treasury bond. The average return on 50-year French treasury bonds is not currently available over a sufficient duration. The benchmark is the sliding average over 10 years of the return on French treasury bonds over longer time horizons, plus the spread of corporate bonds rated A to AA, which include EDF.

The assumed inflation rate used is coherent with the forecasts provided by consensus and expected inflation based on the returns on inflation-linked bonds.

#### - Revision of the discount rate

The methodology used to calculate the discount rate aims to smoothe short-term market effects in order to reflect only long-term trends in rates. It has led to use of a constant discount rate in determining provisions for nuclear commitments since the first application of CRC regulation 2000-06 on liabilities at January 1, 2002. When first calculated, the discount rate was set below contemporary market levels in anticipation of a probable decline in rates. The discount rate is revised on the basis of structural developments in the economy, leading to mediumand long-term changes.

#### - Discount rate and regulatory limit

The decree of February 23, 2007 and the decision of March 21, 2007 impose a double limit on the discount rate:

it must be below a regulatory maximum "equal to the arithmetic average over the forty-eight most recent months, of the constant 30-year rate (TEC 30 ans), observed on the last date of the period concerned, plus one point", and it must also be below the expected rate of return on assets covering the liability.

The discount rate applied respects both these limits.

# 31.5.2 Sensitivity factors in provisions for the back-end nuclear cycle and provisions for decommissioning and last cores

Since the measurement of all the provisions described in notes 31.3 and 31.4 is sensitive to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules, a revised estimate is established at each closing date to ensure that the amounts accrued correspond to the best estimate of the costs eventually to be borne by the Group. Any significant differences resulting from these revised estimates could entail changes in the amounts accrued.

This sensitivity to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules can be estimated through comparison of the gross amount estimated under economic conditions for December of the year concerned with the discounted value of the amount.

This approach can be complemented by estimating the impact of a change in the discount rate on the discounted value.

In application of article 11 of the decree of February 23, 2007, the following table reports these details for the main components of provisions for the back-end nuclear cycle, decommissioning of nuclear plants and last cores:

	Amounts i	n provisions		Sensitivity to discount rate				
	at pres	at present value		007	20	2006		
(in millions of euros)	2007 2006		+ 0.25%	- 0.25%	+ 0.25%	- 0.25%		
Back-end of nuclear cycle:								
- spent nuclear fuel management	10,759	10,202	(212)	225	(204)	217		
- long-term radioactive waste management	5,901	4,400	(356)	404	(252)	281		
Decommissioning and last cores:								
- decommissioning for nuclear power plants	9,974	10,338	(516)	550	(560)	598		
- depreciation of last cores	1,701	1,669	(85)	91	(87)	93		
TOTAL	28,335	26,609	(1,169)	1,270	(1,103)	1,189		



#### 31.5.3 Dedicated assets

In order to secure financing of long-term obligations in increasingly open electricity markets, EDF is progressively building up a portfolio of financial assets dedicated to covering long-term nuclear obligations, specifically the decommissioning of currently active nuclear power plants and the long-term storage of long-life high and medium-level waste.

In September 2005, the pace of the process was accelerated and EDF's Board of Directors decided to:

• Include plants that have already shut down and are being dismantled, and the share of the provision for last cores corresponding to the repro-

cessing of fuel and removal and storage of the waste from those plants, in the basis covered by dedicated assets;

 Accelerate the pace of development of dedicated assets, such that by the end of 2010 they will cover the level of the provisions concerned.

These measures are now an obligation for EDF with the enactment of French Law of June 28, 2006 on the sustainable management of radioactive materials and waste, which requires nuclear power operators to implement a plan to constitute dedicated assets within five years of publication of the law at the latest.

At December 31, 2007, the fair value of the dedicated asset portfolio amounts to €8,604 million (€6,257 million at December 31, 2006).

## 31.6

#### **Provisions for employee benefits**

#### 31.6.1 Changes in provisions

The changes in provisions for employee benefits were as follows in the last two years:

#### 31.6.1.1 AT DECEMBER 31, 2007:

		12.31.2006	Increases	Decr	reases	Other	12.31.2007	
(in millions of euros)				Utilizations	Reversals	changes	,	
Provisions for post-employment benefits		12,799	1,887	(1,867)	-	(144)	12,675	
Provisions for other long-term benefits		1,129	112	(162)	-	9	1,088	
PROVISIONS FOR EMPLOYEE BENEFIT	S	13,928	1,999	(2,029)	-	(135)	13,763	
(in millions of euros)	France	United Kingdo	om Geri	many	Italy Re	est of Europe	Total	
Provisions at 12.31.2006	11,444	390	1,8	56	59	179	13,928	
Amounts used during the year	(1,405)	(62)	(	94)	1	(24)	(1,584)	
Changes in the scope of consolidation	-	-		(3)	(3)	8	2	
Net additions for the year	1,331	62	1	33	7	23	1,556	
Other	-	(122)		-	(9)	(8)	(139)	
DBOV/ICIONIC AT 12 21 2007	11 270	260	1 0	ດວ	EE	170	12 762	

#### 31.6.1.2 AT DECEMBER 31, 2006:

	12.31.2005 Increases Decreases		Other	12.31.2006			
(in millions of euros)				Utilizatio	ons Reversals	changes	
Provisions for post-employment benefits		14,167	1,434	(1,424)	(328)	(1,049)	12,799
Provisions for other long-term benefits		405	185	(130)	-	669	1,129
PROVISIONS FOR EMPLOYEE BENEFITS		14,572	1,619	(1,554)	(328)	(380)	13,928
(in millions of euros)	France	United Kingdom	Germany	Italy	Rest of Europe	Rest of the world	Total
D 1.1 42 24 200F	44 740	470	4 700		474	222	44.570

(in millions of euros)	France	United Kingdom	Germany	Italy	Rest of Europe	Rest of the world	Total
Provisions at 12.31.2005	11,748	478	1,790	63	171	322	14,572
Amounts used during the year	(1,379)	(59)	(91)	(3)	(23)	-	(1,555)
Changes in the scope of consolidation	9	-	6	(2)	3	(328)	(312)
Net additions for the year	1,066	26	152	7	24	6	1,281
Other	-	(55)	(1)	(6)	4	-	(58)
PROVISIONS AT 12.31.2006	11,444	390	1,856	59	179		13,928

The changes in these provisions since December 31, 2006 result from variations in vested benefits, financial discounting of the obligation, payments made to external funds, and benefits paid out.

### **31.6.2** Provisions for post-employment benefits

### 31.6.2.1 FRENCH AND FOREIGN SUBSIDIARIES NOT COVERED BY THE SPECIAL IEG SYSTEM

Pension obligations principally relate to British, German and Italian companies and are mostly covered by defined-benefit plans.

Pension obligations are partly covered by external funds. The present value of these fund assets is  $\in$ 3.7 billion at December 31, 2007 ( $\in$ 3.74 billion at December 31, 2006).

Unamortized actuarial variances concern the same subsidiaries.

#### 31.6.2.2 FRENCH SUBSIDIARIES COVERED BY THE IEG SYSTEM

#### - Pensions

The main measures of the financing reform for the special IEG pension system took effect at January 1, 2005.

Following the financing reform for the special electricity and gas industries' pension system that took place in 2004, provisions recorded for the special pension system correspond to the specific benefits of employees, i.e. benefits not covered by the standard benefit systems.

The provision for pensions thus covers:

- Specific benefits of employees in the deregulated or competitive activities:
- Specific benefits earned by employees from January 1, 2005 for the regulated activities (transmission and distribution) (past benefits were financed by the CTA levy (Contribution tarifaire d'acheminement):
- Specific benefits of employees benefiting from early retirement before the standard legal retirement age.

The valuation also includes CNIEG management expenses payable by EDF for the administration and payment of retired employees' pensions by the CNIEG.

These provisions amount to €8,790 million at December 31, 2007 (€8,874 million at December 31, 2006).

#### - Other post-employment benefits

In addition to pensions, other benefits are granted to employees not currently in active service, as detailed below:

(in millions of euros)	12.31.2007	12.31.2006
Benefits in kind (electricity/gas)	1,130	1,073
Retirement gratuities	2	8
Bereavement benefit	267	255
Bonus paid leave	188	177
Other post-employment	123	65
PROVISIONS FOR POST-EMPLOYMENT BENEFITS	1,710	1,578

#### • Benefits in kind (electricity/gas)

Article 28 of the electricity and gas industries' national statutes entitles all employees (active or inactive) to benefits in kind in the form of supplies of electricity or gas at the preferential "Employee price". EDF's obligation for supplies of energy to EDF and Gaz de France employees corresponds to the probable present value of kWhs supplied to beneficiaries during their retirement, valued on the basis of the unit cost, taking into account the payment received under the energy exchange agreement with Gaz de France.

#### • Retirement gratuities

Retirement gratuities are paid upon retirement to employees due to receive the statutory old-age pension, or to their dependents if the employee dies before reaching retirement. These obligations are almost totally covered by an insurance policy.

#### • Bereavement benefit

The bereavement benefit is paid out upon the death of an inactive or handicapped employee, in order to provide financial assistance for the expenses incurred at such a time (Article 26 § 5 of the National Statutes). It is paid to the deceased's principal dependants (statutory indemnity equal to two months' pension) or to a third party that has paid funeral costs (discretionary indemnity equal to the costs incurred).

#### • Bonus paid leave

All employees eligible to benefit immediately from the statutory oldage pension and aged at least 55 at their retirement date are entitled to 18 days of bonus paid leave during the last twelve months of their employment.

#### • Other benefits

Other benefits include end-of-studies bonuses, retirement indemnities and pensions for personnel seconded to Group companies.

## **31.6.3** Provisions for other long-term employee benefits

Personnel are also granted other long-term benefits. At December 31, 2007, the related obligations total €942 million for IEG status employees (€992 million at December 31, 2006). These benefits include:

- Annuities following industrial accident, work-related illness or invalidity; like their counterparts in the general national system, IEG employees are entitled to financial support in the event of industrial accident or work-related illness, and invalidity annuities and benefits. The obligation is measured as the probable present value of future benefits payable to current beneficiaries, including any possible reversions;
- Long-service awards;
- Specific benefits for employees who have been in contact with asbestos.



#### 31.6.4 Changes in the discounted value of the obligation and fund assets

The main actuarial assumptions used for provisions for post-employment benefits and long-term employee benefits for 2007 are summarized below:

	France	United Kingdom	Germany
Discount rates of the obligations	5.00%	6.0%	5.3%
Expected return on plan assets	5.05%	5.9%	5.5%
Pay increase rates	2.0% (1)	5.1%	2.3%

<sup>(1)</sup> Excluding inflation.

The actual return on fund assets for 2007 is €295 million.

The significant decrease in unamortized actuarial variances in France (€1,742 million) is primarily due to the change in the discount rate (5% at December 31, 2007 compared to 4.25% at December 31, 2006).

#### 31.6.4.1 CHANGES IN THE DISCOUNTED VALUE OF THE OBLIGATION

(in millions of euros)	France	<b>United Kingdom</b>	Germany	Italy	Rest of Europe	Total
Obligations at 01.01.2007	19,128	4,055	2,130	60	294	25,667
Current year service cost	632	82	32	2	15	763
Interest expenses	838	204	91	2	5	1,140
Actuarial gains and losses	(1,831)	(1)	(188)	(1)	(7)	(2,028)
Effect of curtailment or settlement of a p	lan -	-	-	-	(1)	(1)
Benefits paid	(859)	(176)	(97)	(3)	(14)	(1,149)
Contributions by plan participants	-	28	-	-	-	28
Past service cost	-	-	-	-	2	2
Business combinations	-	-	1	-	-	1
Change rate and others	(26)	(350)	1	(5)	(1)	(381)
OBLIGATIONS AT 12.31.2007	17,882	3,842	1,970	55	293	24,042
- Fair value of plan assets	(6,186)	(3,531)	(49)	-	(112)	(9,878)
- Unrecognized actuarial gains (losses)	(336)	(43)	(31)	-	(8)	(418)
- Unrecognized past service cost	-	-	-	-	4	4
- Amounts not recorded in the balance sheet because of the limit	10	-	-	-	-	10
NET PROVISIONS RECORDED	11,370	268	1,890	55	177	13,760
- included provisions for post-employment benefits	11,370	268	1,892	55	178	13,763
- included pensions assets	-	-	(2)	-	(1)	(3)

Contributions are expected to total €817 million in 2008.

The total experience adjustment corresponds to an actuarial gain of €166 million.

#### 31.6.4.2 CHANGE IN THE DISCOUNTED VALUE OF FUND ASSETS

(in millions of euros)	France	<b>United Kingdom</b>	Germany	Italy	Rest of Europe	Total
Fair value of dedicated financial assets as of January 1, 2007	(5,606)	(3,590)	(49)	(1)	(100)	(9,346)
Expected return on plan assets	(218)	(224)	(2)	-	(1)	(445)
Net contributions	(694)	(131)	-	-	6	(819)
Actuarial gains and losses	157	(7)	-	-	-	150
Benefits paid through dedicated assets	175	176	3	-	(4)	350
Other	-	245	(1)	1	(13)	232
FAIR VALUE OF DEDICATED FINANCIAL ASSETS AS OF DECEMBER 31, 2007	(6,186)	(3,531)	(49)	-	(112)	(9,878)

#### 31.6.5 Breakdown of the value of fund assets

For France, this item includes €6,186 million of fund assets at December 31, 2007 (€5,606 million at December 31, 2006) to cover EDF's long-term employee benefit obligations allocated to retirement gratuities (covered 100%) and the specific benefits of the special pension system. They consist of insurance contracts.

At December 31, 2007, investments under the contracts in France break down as follows:

- For retirement gratuities: 44.9% equities, 55.1% bonds and monetary instruments;
- For the special pension system: 23.9% equities, 76.1% bonds and monetary instruments.

At December 31, 2006, the breakdown of investments under the contracts in France was as follows:

- For retirement gratuities: 48% equities, 51% bonds and 1% monetary instruments;
- For the special pension system: 2% equities, 25% bonds and 73% monetary instruments.

#### 31.6.6 Post-employment and other long-term employee benefit expenses

(in millions of euros)	 12.31.2007	12.31.2006
Current year service cost	(763)	(714)
Interest expense (current value method)	(1,140)	(1,097)
Expected return on plan assets	445	357
Actuarial gains and losses recorded during the year	(53)	(151)
Effect on curtailment or settlement of a plan	8	333
Cost of past service vested	(2)	(1)
Effects of limit	(10)	-
NET CHARGES RELATED TO POST-EMPLOYMENT BENEFITS AND OTHER LONG-TERM BENEFITS	(1,515)	(1,273)

## 31.7

#### Other provisions and contingent liabilities

Details of changes in other provisions are as follows:

#### 31.7.1 At December 31, 2007

	12.31.2006	Increases	Decreases		Other	12.31.2007
(in millions of euros)			Utilizations	Reversals	changes	
Provisions for contingencies related to investments	118	37	(1)	(1)	4	157
Provisions for tax liabilities	151	28	(1)	(31)	-	147
Provisions for litigation	562	108	(58)	(43)	7	576
Provisions for onerous contracts	406	86	(128)	(53)	(9)	302
Other	2,772	1,236	(911)	(354)	(63)	2,680
OTHER PROVISIONS	4,009	1,495	(1,099)	(482)	(61)	3,862

#### 31.7.2 At December 31, 2006

	12.31.2005	Increases	Decreases		Other	12.31.2006
(in millions of euros)			Utilizations	Reversals	changes	
Provisions for contingencies related to investments	15	108	(3)	-	(2)	118
Provisions for tax liabilities	191	49	(13)	(38)	(38)	151
Provisions for litigation	774	149	(24)	(24)	(313)	562
Provisions for onerous contracts	444	104	(123)	(18)	(1)	406
Other	2,165	1,227	(555)	(50)	(15)	2,772
OTHER PROVISIONS	3,589	1,637	(718)	(130)	(369)	4,009



#### 31.7.3 Other provisions

This heading includes in particular:

- A provision of €497 million initially established at December 31, 2006 at €470 million to cover the contribution to be paid by EDF under the transition tariff system (*tarif réglementé transitoire d'ajustement du marché* or *TARTAM*) (see notes 2.2.7, 5.2.1.2 and 13). Following revision of the assumptions, an additional amount of €248 million was allocated to the provision in 2007. The provision was also reduced by €221 million for contributions due in 2007;
- A provision of €334 million to cover EDF's share of the expenses relating to future work programs adopted by the *Fonds d'Amortissement des Charges d'Electrification* (sinking fund for electrification charges);
- A provision of €368 million for the contribution to preserve entitlements to unregulated benefits related to agreements signed with the complementary pension organizations;
- Provisions of €205 million for greenhouse gas emission quotas, based on historical purchase prices.

"Provisions for litigation" include a provision of €299 million for litigation with social security bodies.

#### 31.7.4 Contingent liabilities

#### - Discharge by the Saint Chamas power plant into the Etang de Berre:

In 1999, a professional association initiated legal action before the French courts and the European Commission relating to operation of the hydropower plant at Saint-Chamas.

EDF won the case in the French courts. On March 29, 2007 the same professional association lodged an appeal against the Lyon Appeal Court's ruling of January 22, 2007 in favor of EDF, but this appeal was subsequently withdrawn.

In the proceedings before the European Commission, negotiations between the French State and the Commission resulted in the freshwater emission limits being set at 1.2 billion m³, with introduction of a minimum salinity level for the Etang de Berre saltwater marsh.

The decree modifying the terms of the concession and incorporating the maximum freshwater emission level and the salinity requirement negotiated with the Commission was published on December 9, 2006. EDF considers that the risks associated with these constraints are now negligible.

#### - Labor litigation:

EDF is party to a number of labor lawsuits with employees, primarily regarding the calculation and implementation of rest periods. EDF estimates that none of these lawsuits, individually, is likely to have a significant impact on its profits and financial position. However, because they concern situations likely to involve a large number of EDF's employees in France, these litigations could present a systemic risk which could have a material, negative impact on the Group's financial results.

 Off-balance sheet costs and revenues account (compte de régulation des charges et produits or CRCP):

New tariffs for using the public electricity transmission and distribution networks (TURP 2) came into force at January 1, 2006, following approval by the French Ministry of Finance on September 23, 2005.

The French Energy Regulator (Commission de Régulation de l'Energie or CRE) has considered it necessary to introduce a system to compensate for the effects of external factors beyond the control of network operators on the operators' income and expenses. This system uses an off-balance sheet costs and revenues account (compte de régulation des charges et produits or CRCP) to record all or some of the network operator's income surpluses or shortfalls, which is cleared by reducing or increasing the expenses to be recovered through the TURP in the next five years.

Following audits of the unbundled accounts for 2000 and 2002, the CRCP's initial balance at January 1, 2006 was €1,439 million for distribution and transmission activities.

#### - Edipower:

In May 2006, Rome's municipal energy supplier ACEA Spa filed a complaint with the Italian government, the regulator (AEEG) and the national competition authorities (AGCM) that the joint takeover of Edison by EDF and AEM would bring their holdings in the company's capital above the 30% limit applicable to public companies (fixed by the Chairman of the Italian Council of Ministers in the decree of November 8, 2000). On July 7, 2006 the AGCM issued an opinion ("segnalazione") supporting ACEA's position, and officially requested the Italian government and parliament to take steps to ensure compliance with the decree of November 8, 2000. In August 2006, ACEA brought proceedings before the Rome civil courts against EDF, IEB and WGRMH 4 (and also Edison, AEM Milan, Delmi, Edipower, AEM Turin, ATEL and TdE), arguing that exceeding the 30% limit is a breach of the applicable legislation and could have a negative impact on the energy market, to the detriment of fair competition and the final interests of

In January 2007, Endesa Italia also joined ACEA in its action.

An initial hearing on points of procedure only took place on May 24, 2007. The judge accepted the application presented by all defendants for adjournment to a later date, in view of Endesa's late intervention in the procedure. The first hearing on the substance of the case is scheduled for June 26, 2008.

 Individual training entitlement (Droit individuel à la formation or DIF):

The French Law of May 4, 2004 allows each employee an individual entitlement to a minimum of 20 hours of training per year, which may be accumulated over 6 years. The company agreement signed on February 24, 2006 defines the conditions for exercising this entitlement, listing the types of training eligible. Expenses for such training are recorded as incurred.

For EDF and ERDF, DIF entitlements earned but not yet used at December 31, 2007 represent more than 7.8 million hours.

# Note **32**

# Specific French public electricity distribution concession liabilities for existing assets and assets to be replaced



The changes in specific concession liabilities for existing assets and assets to be replaced are as follows at December 31, 2007:

(in millions of euros)	12.31.2006	Change over the period	12.31.2007
Value in kind of assets	34,865	371	35,236
Unamortized financing by the operator	(17,065)	56	(17,009)
Rights in existing assets - net value	17,800	427	18,227
Amortization of financing by the grantor	7,364	507	7,871
Provision for renewal	11,063	(204)	10,859
Rights in assets to be replaced	18,427	303	18,730
SPECIAL FRENCH PUBLIC ELECTRICITY DISTRIBUTION CONCESSION LIABILITIES	36,227	730	36,957

The €204 million decrease in the provision for renewal results from:

- A reversal corresponding to the changes in useful lives and replacement values amounting to €555 million (see note 3.2.4);
- A net increase of €351 million over the period.

# Note

## **Current and non-current financial liabilities**

33



## 33.1

### Breakdown between current and non-current financial liabilities

Current and non-current financial liabilities break down as follows:

12.31.2007		12.31.2006				
(in millions of euros)	Non-current	Current	Total	Non-current	Current	Total
Loans and other financial liabilities	17,417	10,513	27,930	19,462	8,680	28,142
Negative fair value of derivatives held for trad	ding -	5,582	5,582	-	5,960	5,960
Negative fair value of hedging derivatives	190	823	1,013	521	470	991
FINANCIAL LIABILITIES	17,607	16,918	34,525	19,983	15,110	35,093

The fair value of derivatives is mostly determined on the basis of listed prices and market data (see note 2.15.1.6.2).



# 33.2

## Loans and other financial liabilities

### 33.2.1 Changes in loans and other financial liabilities

(in millions of euros)	Bonds	Loans from financial institutions	Other financial liabilities	Loans linked to finance leased assets	Accrued interest	Total
Balances at 12.31.2005	19,291	6,078	3,452	359	538	29,718
Increases	1,477	361	1,806	-	218	3,862
Decreases	(2,004)	(974)	(1,210)	(29)	(166)	(4,383)
Changes in scope of consolidation	(247)	(571)	151	18	(55)	(704)
Translation adjustments	(27)	(141)	1	-	(12)	(179)
Other	(62)	(25)	(127)	17	25	(172)
Balances at 12.31.2006	18,428	4,728	4,073	365	548	28,142
Increases	229	1,749	5,530	-	61	7,569
Decreases	(3,193)	(2,316)	(1,233)	(55)	(161)	(6,958)
Changes in scope of consolidation	(69)	(42)	67	(40)	(3)	(87)
Translation adjustments	(412)	(97)	(124)	1	(34)	(666)
Other	(40)	146	(175)	(34)	33	(70)
BALANCES AT 12.31.2007	14,943	4,168	8,138	237	444	27,930

Loans from financial institutions include new loans contracted by Edipower totaling €441 million, replacing previous short-term loans, and loans contracted by the *EDF Energies Nouvelles* Group.

The change in other liabilities principally results from commercial paper issued by EDF.

The loans and other financial liabilities of the Group's major entities are as follows:

(in millions of euros)	12.31.2007	12.31.2006
EDF	10,381	10,447
RTE EDF Transport	6,363	6,417
EDF Energy	6,146	6,663
EnBW	1,921	2,460
Edison	1,436	2,369

At December 31, 2007, none of these entities was in default on any borrowing.

At December 31, 2007, Group borrowings exceeding €750 million are as follows:

(in millions of euros)	Entity	Issue	Maturity	Amount	Currency	Rate
Bond	EDF	1993	2008	987	EUR	6.3%
Bond	EDF	1998	2009	1,996	EUR	5.0%
Euro MTN	EDF	2000	2010	1,000	EUR	5.8%
Euro MTN	EDF	2001	2016	1,100	EUR	5.5%
Bond	EDF	2001	2031	650	GBP	5.9%
Bond	EnBW	2002	2012	1,000	EUR	5.9%
Euro MTN	EDF	2003	2033	850	EUR	5.6%
Bond	RTE EDF Transport	2006	2016	1,000	EUR	4.1%
Bond	Edison	2007	2011	900	EUR	Euribor 3 months

#### 33.2.2 Maturity of loans and other financial liabilities

(in millions of euros)	Bonds	Loans from financial institutions	Other financial liabilities	Loans linked to finance leased assets	Accrued interest	Total
Less than one year	1,362	1,176	7,511	30	434	10,513
From one to five years	5,881	1,856	277	142	5	8,161
More than five years	7,700	1,136	350	65	5	9,256
LOANS AND FINANCIAL LIABILITIES AT 12.31.2007	14,943	4,168	8,138	237	444	27,930

### 33.2.3 Breakdown of loans by currency

		12.31.2007		
(in millions of euros)	Initial debt structure	Impact of hedging derivatives (1)	Debt structure after hedging derivatives	
Euro (EUR)	19,774	(3,953)	15,821	
American Dollar (USD)	2,748	(1,766)	982	
Pound sterling (GBP)	3,987	5,102	9,089	
Other	1,421	617	2,038	
LOANS AND FINANCIAL LIABILITIES	27,930		27,930	

<sup>(1)</sup> Hedges of liabilities and net assets of foreign subsidiaries, and USD/GBP swaps qualifying as economic hedges.

#### 33.2.4 Breakdown of loans by type of interest rate, before and after swaps

		12.31.2007	
(in millions of euros)	Initial debt structure	Impact of hedging derivatives	Debt structure after hedging derivatives
Fixed rates	21,511	1,042	22,553
Floating rates	6,419	(1,042)	5,377
LOANS AND FINANCIAL LIABILITIES	27,930		27,930

The breakdown of loans and financial liabilities by interest rate includes the impact of all derivatives designated as hedges in accordance with IAS 39.

#### 33.2.5 Credit lines

At December 31, 2007, the Group has credit lines with various banks totaling €10,066 million (€9,816 million at December 31, 2006).

		12.31.	2007		12.31.2006	
	Total ———		Maturity	Total		
(in millions of euros)	iotat	< 1 year	1 - 5 years	> 5 years	Totat	
Confirmed credit lines	10,066	2,044	6,173	1,849	9,816	

### 33.2.6 Fair value of loans and other financial liabilities at December 31, 2007

	12.31.2	2007	12.31.2006		
(in millions of euros)	Fair value	Net book value	Fair value	Net book value	
LOANS AND FINANCIAL LIABILITIES	28,966	27,930	29,528	28,142	

55% of loans are stated at fair value based on stock market quotations.



# 33.3

#### **Net indebtedness**

Net indebtedness comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets consisting of funds or securities with initial maturity of over three months, that are readily convertible into cash regardless of their maturity and are managed according to a liquidity-oriented policy.

(in millions of euros)	Notes	12.31.2007	12.31.2006
Loans and other financial liabilities		27,930	28,142
Derivatives used to hedge liabilities		23	237
Cash and cash equivalents	28	(6,035)	(3,308)
Liquid assets	24.3.2.2	(5,682) <sup>(1)</sup>	(10,154) (2)
Net financial liabilities from companies disclosed in non-current liabilities related to the assets classified as held for sale		33	15
NET INDEBTEDNESS		16,269	14,932

<sup>(1)</sup> Available-for-sale financial assets: €5,602 million, financial assets carried at fair value: €80 million.

## 33.4

## **Changes in net indebtedness**

Changes in net indebtedness in 2007 include the impact of a €2,397 million cash allocation to dedicated assets (see 24.3.2.1) and the impact of sales of businesses during the year (€1,327 million).

In 2006, they included the impact of the sales of businesses during the year ( $\leqslant$ 2,416 million) and a  $\leqslant$ 2,700 million cash allocation to dedicated assets

(in millions of euros)	2007	2006 <sup>(1)</sup>
Operating profit before depreciation and amortization (EBITDA)	15,210	14,393
Cancellation of non-monetary items included in EBITDA	(1,584)	(325)
Change in net working capital	(269)	654
Other items	23	17
Net cash flow from operations	13,380	14,739
Acquisitions of property, plant and equipment and intangible assets net of disposals	(7,261)	(5,663)
Net financial expenses disbursed	(921)	(931)
Income tax paid	(2,237)	(1,462)
Free cash flow	2,961	6,683
Investments (including investments in consolidated companies)	(2,634)	(2,704)
Dividends paid	(3,260)	(1,532)
Payment related to the dismantling of Marcoule site	-	(551)
Other items (2)	621	354
Monetary decrease in net indebtedness, excluding the impact of changes in scope of consolidation and exchanges rates	(2,312)	2,250
Effect of change in scope of consolidation	198	1,287
Effect of change in accounting methods on net indebtedness	-	(1)
Effect of exchange rate fluctuations	622	79
Other non-monetary changes	155	45
(Increase) / decrease in net indebtedness	(1,337)	3,660
Net indebtedness at beginning of period	14,932	18,592
NET INDEBTEDNESS AT END OF PERIOD	16,269	14,932

<sup>(1)</sup> The figures published for 2006 have been restated to reflect the change in presentation whereby net increases in provisions for renewal of property, plant and equipment operated under concession are reported under a specific heading (see notes 2 and 3.2.3).

<sup>(2)</sup> Available-for-sale financial assets: €10,081 million, financial assets carried at fair value: €73 million.

# 33.5

## **Guarantees of borrowings**

Guarantees of borrowings by the Group at December 31, 2007 comprise the following:

		12.31.2006			
	Total		Maturity		Total
(in millions of euros)	TOTAL •		1 - 5 years	> 5 years	Totat
Securities interests in real property	2,102	105	1,308	689	2,754
Guarantees related to borrowings	419	89	93	237	718
Other financing commitments	190	51	45	94	371
FINANCING COMMITMENTS GIVEN	2,711	245	1,446	1,020	3,843
FINANCING COMMITMENTS RECEIVED (1)	114	17	87	10	423

<sup>(1)</sup> Excluding credit lines (see note 33.2.5).

Security interests in real property and assets provided as guarantees mainly concern property, plant and equipment and take the form of pledges or mortgages, and shares representing investments in consolidated subsidiaries which own property, plant and equipment. The net book value of current and non-current assets given as guarantees is €2,102 million. The €652 million decrease in security interests in assets primarily results from the sale of the Mexican activities.

Guarantees of borrowings were principally given by EDF, EDF International and EDF Energy.

Changes in financing commitments during 2007 include €244 million of cancellation of guarantees associated with the early repayment of the Edipower loan, and pledges of assets by *EDF Energies Nouvelles* in the course of its business.

Financing commitments received mainly concern EDF.



# Note 34

## Management of financial risks



As an operator in the energy sector worldwide, the EDF Group is exposed to risks related to interest rate, exchange rate and fluctuations in commodity prices. The Group uses derivatives in various hedging strategies to eliminate or limit these financial risks, not for speculative purposes.

To that end, the Group has set up a dedicated body responsible for defining risk management policy and its governing principles, and supervising their correct application.

EDF entities and Group subsidiaries, particularly EDF Trading, EDF Energy, EnBW and Edison have adapted these principles as appropriate for management of the risks inherent to their business.

Risks related to exchange rate, interest rate and commodity price fluctuations create volatility affecting Group results, equity and cash flows.

The main derivatives used are forward exchange contracts and currency swaps, interest rate swaps, cross currency swaps and commodity futures, forwards and swaps.

Derivatives that function as an economic hedge of a risk but do not qualify for hedge accounting under IFRS are stated at fair value, with changes in fair value recorded in the income statement.

The equity risk lies essentially in the portfolio to cover nuclear obligations, and to a lesser degree in long-term investments for EDF's cash management

On the energy markets, the Group enters into trading operations on the wholesale electricity,  $CO_2$  and fossil fuel markets, mainly through its subsidiary EDF Trading. EDF Trading's spot and forward transactions mostly involve instruments such as forward contracts (with or without physical delivery), swaps and options.

While EDF Trading is responsible for controlling its own exposure to energy market risks, its commitments on the markets are also managed at Group level through a "Value at risk" (VaR) limit with a stop-loss limit.

Regarding the credit risk, i.e. the risk of default on contractual obligations by counterparties, the Group has a risk management policy. As part of that policy, EDF Trading has set up a management system for this risk based on the four following principles:

- Quantitative and qualitative analysis of all counterparties, in order to define limits for exposure to counterparty risks; these limits are approved by EDF Trading's Credit Committee;
- Daily measurement of risk exposure; EDF Trading measures the credit risk based on future payments and the cost of replacing contracts on the markets:
- Daily management of limits, involving monitoring and reporting of overall exposure;
- 90% of EDF Trading's credit exposure concern "investment grade" counterparties.

The 2007 Management Report (chapters 1.10 and 1.18) supplies additional information to complement this note.

### Note

35

## **Derivatives and hedge accounting**



<b>35.1</b> Fair value hedges	P.295
<b>35.2</b> Cash flow hedges	P.295
35.3 Hedges of net investments in foreign entities	P.295
<b>35.4</b> Impact of hedging derivatives on equity	P.296
35.5 Commodity-related fair value hedges	P.298

Hedge accounting is applied in compliance with IAS 39, and concerns interest rate derivatives used to hedge long-term indebtedness, currency derivatives used to hedge net foreign investments and debts in foreign currencies, and currency and commodity derivatives used to hedge future cash flows.

## 35.1 Fair value hedges

The EDF Group hedges the exposure to changes in the fair value of fixedrate debts. The derivatives used for this hedging are fixed/floating interest rate swaps and cross currency swaps, with changes in fair value recorded in the income statement. At December 31, 2007, the ineffective portion of fair value hedges represents a gain of  $\in$ 3 million, included in the financial result.

The Group also hedges certain firm commitments to purchase nuclear fuels, using forward currency contracts.

## 35.2 Cash flow hedges

The EDF Group uses cash flow hedging principally for the following purposes:

- To hedge its floating-rate debt, using interest-rate swaps (floating/fixed rate);
- To hedge the exchange rate risk related to debts contracted in foreign currencies, using currency swaps;
- To hedge future cash flows related to expected sales and purchases of electricity, gas, coal and nuclear fuel, using futures, forwards and swaps.

At December 31, 2007, the ineffective portion of cash flow hedges represents a gain of  $\in$ 3 million.

## **35.3** Hedges of net investments in foreign entities

Hedging of net foreign investments is used for protection against exposure to the exchange rate risk related to net investments in the Group's foreign entities.

This risk is hedged at Group level either by contracting debts for investments in the same currency, or through the markets, in which case the Group uses currency swaps and forward exchange contracts.

The ineffective portion of hedges of net investments in foreign entities represents a loss of  $\leqslant$ 2 million.



# 35.4

## Impact of hedging derivatives on equity

In 2007, changes in the fair value of hedging derivatives included in equity over the year are as follows:

(in millions of euros)	Gross changes in fair value recorded in equity <sup>(1)</sup>	Taxes related to gross changes in fair value recorded in equity	Changes after taxes in fair value recorded in equity (1)	Inefficiency	Gross changes in fair value transferred to income <sup>(2)</sup>	Taxes related to changes in fair value transferred to income	Changes after taxes in fair value transferred to income (2)
Interest rate hedging derivatives	(5)	(2)	(7)	1	(14)	4	(10)
Exchange rate hedging derivatives	(99)	34	(65)	-	(7)	3	(4)
Net foreign exchange hedging derivatives	251	(86)	165	(2)	1	-	1
Commodities hedging derivatives	944	(317)	627	2	(1,115)	301	(814)
HEDGING DERIVATIVES	1,091	(371)	720	1	(1,135)	308	(827)

<sup>(1) + / ():</sup> increase/decrease in equity

The main components of the €627 million positive change, after tax, in the fair value of commodity hedging derivatives are:

- €502 million on hedging coal contracts;
- €122 million on hedging gas contracts.

The main components of the amount of €(814) million after tax transferred to income in respect of commodity hedges terminated during the year are:

- €(470) million on hedging electricity contracts;
- €(309) million on hedging gas contracts.

#### 35.4.1 Interest rate hedging derivatives

Interest rate hedging derivatives are swaps and break down as follows:

		Notional at	12.31.2007		Notional at 12.31.2006	Fair value	
(in millions of euros)	< 1 year	1 - 5 years	> 5 years	Total	Total	12.31.2007	12.31.2006
Interest rate transactions	-	-	-	-	395	1	-
Fixed rate payer / floating rate receiver	238	1,348	484	2,070	1,491	21	19
Floating rate payer / fixed rate receiver	128	250	414	792	1,826	1	15
Variable / variable	130	-	-	130	-	20	-
Interest rate swaps	496	1,598	898	2,992	3,317	42	34
INTEREST RATE HEDGING DERIVATIVES	496	1,598	898	2,992	3,712	43	34

The fair value of interest rate/exchange rate cross-currency swaps comprises the interest rate effect only.

<sup>(2) + / ( ):</sup> increase/decrease in net income

## 35.4.2 Exchange rate hedging derivatives

Exchange rate hedging derivatives break down as follows:

#### - At December 31, 2007:

	Notional amount to be received at 12.31.2007		Notional amount to be given at 12.31.2007				Fair value		
(in millions of euros)	< 1 year	1 - 5 years	> 5 years	Total	< 1 year	1 - 5 years	> 5 years	Total	12.31.2007
Forward exchange transactions	2,904	3,191	-	6,095	2,690	3,062	-	5,752	(7)
Swaps	1,841	1,685	2,152	5,678	1,837	1,689	1,981	5,507	159
Options	1,523	-	-	1,523	1,514	-	-	1,514	9
FOREIGN CURRENCY HEDGES	6,268	4,876	2,152	13,296	6,041	4,751	1,981	12,773	161

#### - At December 31, 2006:

(in millions of euros)	Notional amount to be received at 12.31.2006	Notional amount to be given at 12.31.2006	Fair value at 12.31.2006
Forward exchange transactions	5,485	4,401	52
Swaps	7,375	6,880	(101)
Options	172	172	-
FOREIGN CURRENCY HEDGES	13,032	11,453	(49)

The fair value of interest rate/exchange rate cross-currency swaps comprises the exchange rate effect only.

## 35.4.3 Commodity-related cash flow hedges

Details are as follows:

	Units	3							
	of measure		Net notio	nnals		Fair value	Fair value		
(in millions of euros)		< 1 year	From 1 to 5 years	> 5 years	Total				
Swaps		-	-	-	-	1	(27)		
Forwards/futures		13	1	-	14	254	(392)		
Power	TWh	13	1	-	14	255	(419)		
Forwards/futures		931	1,297	5	2,233	52	(584)		
Gas	Millions of therms	931	1,297	5	2,233	52	(584)		
Swaps		6,522	-	-	6,522	63	(65)		
Oil products	Thousands of barrils	6,522	-	-	6,522	63	(65)		
Swaps		13	8	-	21	523	10		
Coal	Millions of tonnes	13	8	-	21	523	10		
Options		-	-	-	-	-	2		
Forwards/futures		9,261	5,800	-	15,061	49	(137)		
CO <sub>2</sub>	Thousands of tonnes	s 9,261	5,800	-	15,061	49	(135)		
CASH FLOW HEDGE COMMODITY DERIVATIVES						942	(1,193)		



# 35.5

## Commodity-related fair value hedges

Details are as follows:

		12.31.2007						
	Units of measure	Net notionnals	Fair value					
(in millions of euros)								
Coal and freight	Millions of tonnes	(15)	136					
FAIR VALUE HEDGING COMMODITY DERIVATIVES			136					

## Note

## Derivative instruments not recorded as hedges

36

<b>36.1</b> Interest rate derivatives	P.298
<b>36.2</b> Currency derivatives held for trading	P.299
36.3 Equity derivatives	P.299
<b>36.4</b> Commodity derivatives not classified as hedges	P.300

## 36.1

## Interest rate derivatives held for trading

Interest rate derivatives held for trading break down as follows:

		Notional amour	nt at 12.31.2007	Notional amount at 12.31.2006	Fair value		
(in millions of euros)	< 1 year	1 - 5 years	> 5 years	Total	Total	12.31.2007	12.31.2006
Purchases of CAP contracts	372	147	-	519	902	3	3
Purchases of FLOOR contracts	-	-	-	-	125	-	1
Sales of FLOOR contracts	371	294	-	665	902	-	(1)
Interest rate transactions	743	441	-	1,184	1,929	3	3
Fixed rate payer / floating rate receiver	1,108	134	1,562	2,804	5,614	(8)	(63)
Floating rate payer / fixed rate receiver	4,745	745	1,669	7,159	3,132	48	74
Variable / variable	392	167	-	559	1,070	(1)	(5)
Interest rate swaps	6,245	1,046	3,231	10,522	9,816	39	6
INTEREST RATE DERIVATIVES HELD FOR TRADING	6,988	1,487	3,231	11,706	11,745	42	9

# 36.2

## **Currency derivatives held for trading**

Currency derivatives held for trading break down as follows:

#### - At December 31, 2007:

	Notion	nal to be rece	eived at 12.3	1.2007	Notion	nal to be give	n at 12.31.2	007	Fair value
(in millions of euros)	< 1 year	1 - 5 years	> 5 years	Total	< 1 year	1 - 5 years	> 5 years	Total	at 12.31.2007
Forward transactions	2,123	540	35	2,698	2,045	501	35	2,581	12
Swaps	2,979	929	-	3,908	2,967	883	-	3,850	71
Options	208	-	-	208	204	-	-	204	-
Embedded currency derivatives	-	-	-	-	-	-	-	-	(42)
CURRENCY DERIVATIVES HELD FOR TRADING	5,310	1,469	35	6,814	5,216	1,384	35	6,635	41

#### - At December 31, 2006:

(in millions of euros)	Notional amount to be received at 12.31.2006	Notional amount to be given at 12.31.2006	Fair value at 12.31.2006
Forward exchange transactions	1,958	1,844	(82)
Swaps	8,649	8,575	107
Embedded currency derivatives	-	-	(44)
CURRENCY DERIVATIVES HELD FOR TRADING	10,607	10,419	(19)

# **36.3** Equity derivatives

In 2006, equity derivatives included Edison share warrants amounting to €228 million. All these warrants were exercised in 2007.



# 36.4

## Commodity derivatives not classified as hedges

Details of commodity derivatives not classified as hedges are as follows:

		12.31.2007	12.31.2007	12.31.2006
(in millions of euros)	Units of measure	Net notionnals	Fair value	Fair value
Swaps		-	(50)	(6)
Options		18	(162)	26
Forwards/futures		(8)	(55)	251
Power	TWh	10	(267)	271
Swaps		(7)	(177)	25
Options		81,407	363	170
Forwards/futures		(510)	12	(18)
Gas	Millions of therms	80,890	198	177
Swaps		(19,273)	97	(11)
Options		(1,814)	6	10
Forwards/futures		2,087	19	(12)
Oil products	Thousands of barrels	(19,000)	122	(13)
Swaps		(48)	(761)	(117)
Options		1	7	-
Forwards/futures		56	983	79
Freight		17	(196)	81
Coal	Millions of tonnes	26	33	43
Options		1,540	1	-
Forwards/futures		(7,871)	127	(29)
CO <sub>2</sub>	Thousands of tonnes	(6,331)	128	(29)
Forwards / futures		-	-	21
Other		-	-	21
Embedded commodity derivatives		-	4	18
NON HEDGING COMMODITY DERIVATIVES			218	488

These mainly include contracts included in EDF Trading's portfolio.

# Note 7

## Other liabilities

**37** .



Details of other liabilities are as follows:

(in millions of euros)	12.31.2007	12.31.2006
Advances received	4,279	4,105
Liabilities related to property, plant and equipment	1,133	487
Tax and social charges	5,735	5,231
Deferred income	7,988	7,753
Other	3,195	3,409
OTHER LIABILITIES	22,330	20,985
Non current	5,624	5,385
Current	16,706	15,600

At December 31, 2007, deferred income includes  $\leqslant$ 2,479 million of partner advances to EDF under the nuclear plant financing plans, and  $\leqslant$ 2,436 million of connection fees.

"Other liabilities" include liabilities related to the commitments to repurchase minority interests (€228 million).

In 2007, the Group exercised its Edison warrants and call options for 10% of the shares of Edipower, and settled its obligations to the Mouratoglou Group (price adjustment and deferred settlement shares). These transactions led to a €263 million reduction in this item.

They also include the borrowings of Domofinance, a credit institution that finances works and installations contributing to energy control (€136 million).

# Note 38

## **Contribution of joint ventures**



The Group holds investments in joint ventures (see note 42). As stated in note 2.3, these investments are proportionally consolidated. The joint ventures' contributions to the consolidated balance sheet and income statement at December 31, 2007 are as follows:

(in millions of euros)	% owned	Current Assets	Non Current Assets	Current liabilities	Non current liabilities	Sales	Operating profit before depreciation and amortization
EnBW	46.07%	3,187	11,280	2,789	7,023	6,900	1,031
Edison	48.96%	1,202	6,610	1,206	2,164	4,121	791
Other		2,760	5,082	1,835	1,120	2,367	358
TOTAL		7,149	22,972	5,830	10,307	13,388	2,180

<sup>&</sup>quot;Other" mainly concerns Dalkia.

----}

## Note

## **Related parties**

39

**39.1** Transactions with entities included in the scope of consolidation

P.302

**39.2** Relations with the French State and State-owned entities

P.302

39.3 Management compensation

P.303

Details of transactions with related parties are as follows:

	Proportionally consolidated companies		Companies accounted for under the equity method		French State and state-owned entities		Group Total	
(in millions of euros)	12.31.2007	12.31.2006	12.31.2007	12.31.2006	12.31.2007	12.31.2006	12.31.2007	12.31.2006
Sales	152	128	509	313	404	481	1,065	922
Fuel and energy purchases	83	223	265	142	1,709	1,778	2,057	2,143
Other external purchases	-	-	-	-	315	281	315	281
Financial assets	58	17	-	1	590	548	648	566
Other assets	120	109	25	21	1,046	402	1,191	532
Financial liabilities	42	27	-	1	-	83	42	111
Other liabilities	357	317	113	143	668	590	1,138	1,050

## 39.1 Transactions with entities included in the scope of consolidation

EDF has entered into various commercial contracts with its subsidiaries and affiliates. EDF and EnBW, in particular, entered into an agreement in 2001 defining the methods of cooperation between the two companies.

Transactions with joint ventures and associates concern sales and purchases of energy.

# 39.2

### **Relations with the French State and State-owned entities**

#### 39.2.1 Relations with the French State

The French State holds 84.8% of the capital of EDF SA, and is thus entitled in the same way as any majority shareholder to control company decisions that require approval by the shareholders.

In accordance with the legislation applicable to all companies having the French State as their majority shareholder, EDF is subject to certain inspection procedures, in particular economic and financial inspections by the State, audits by the French Court of Auditors (*Cour des Comptes*) or Parliament, and verifications by the French General Finance Inspectorate (*Inspection Générale des Finances*).

Under an agreement entered into by the French State and the EDF Group on July 27, 2001 concerning the monitoring of external investments, procedures exist for prior approval by the French State or notification (advance or otherwise) of the State in respect of certain planned investments, additional investments or disposals by the Group. This agreement also introduced a procedure for monitoring the results of external growth operations.

The public service contract between the French State and EDF was signed on October 24, 2005. This contract is intended to form the framework for public service missions entrusted by the lawmaker to EDF for an unlimited period, since the Law of August 9, 2004 simply requires presentation of a report every three years to the French parliament without stipulating the duration of the contract.

EDF, like other electricity producers, also participates in the multi-annual generation investment program defined by the minister in charge of energy, which sets objectives for the allocation of generation capacity.

Finally, the French State intervenes through the regulation of electricity and gas markets, particularly for authorization to build and operate generation facilities, and establishment of regulated sales tariffs, transmission and distribution tariffs, and the level of the Contribution to the Public Electricity Service (Contribution aux charges de service public de l'électricité or CSPE).

#### 39.2.2 Relations with Gaz de France

Since 1951, all of EDF's distribution activities have been undertaken with Gaz de France within the scope of a common structure. Since July 1, 2004, EDF and Gaz de France have each set up their own distribution network operator. The common electricity and gas network operator, EDF Gaz de France Distribution (EGD), manages local public services for energy distribution, covering network construction, operation and maintenance, metering, and relations with non-eligible customers.

In October 2004, EDF and Gaz de France signed a contract defining their relationship in respect of the common operator, its scope of competence and the allocation of costs generated by its activities, as well the governance methods. This contract continues to apply after the transfer of the respective distribution activities to subsidiaries.

EDF and GDF also have two other common services governed by contracts:

- The Health and Safety Delegation;
- The Information Technology and Telecommunications Division (DIT), which is responsible for certain information systems.

#### 39.2.3 Relations with public sector entities

The Group enters into normal business transactions with public sector entities, mainly for electricity supplies and invoicing for access to the transmission network.

Reprocessing and transportation of nuclear fuel by Areva for EDF account for most of the energy purchase costs from state-owned entities. Other purchases concern nuclear plant maintenance services provided by the Areva Group.

Other assets mainly consist of advances on these purchase contracts.

The Group also holds shares in Areva, as mentioned in note 24.3.2.3.

# 39.3

## **Management compensation**

The Group's key management personnel are the Chairman of the Board of Directors, the Chief Officers and the external members of the Board of Directors.

The total compensation paid by EDF and controlled companies to the Group's key management personnel amounted to  $\leqslant$ 5 million for 2007 ( $\leqslant$ 4.1 million in 2006), and covered short-term benefits (salaries, the variable portion paid in 2007, profit share, director's fees and benefits in kind) and the corresponding employer contributions.

Management personnel who belong to the IEG regime also benefit from employee benefits (as defined by IAS 19) attached to that status. The past service cost related to these benefits for 2007 is  $\le$ 0.4 million ( $\le$ 0.3 million for 2006).

Other than the benefits reported above, key management personnel benefit from no other special pension system, starting bonus or severance payment entitlement.

They benefited from the free share plan ACT 2007 in the same way as other EDF Group employees. Given the conditions for attribution, the shares will not be delivered until 2009.



# Note /

## **Environment**



**40.1** Greenhouse gas emission quotas

P.304

**40.2** Energy savings certificates and measures to develop use of renewable energies

P.304

# 40.1

### **Greenhouse gas emission quotas**

In application of the Kyoto protocol, the EU Directive aiming to reduce greenhouse gas emission levels by attributing emission quotas came into effect in 2005, for an initial three-year period ending on December 31, 2007

The second allocation period runs from 2008 to 2012.

In the EDF Group, the companies subject to this Directive are EDF SA, EnBW, EDF Energy, Edison, Fenice, Dalkia International and Dalkia Investissement, Bert, Demasz, Kogeneracia, Zielonagora, ECK, ERSA, ECW and EDF Energies Nouvelles.

In 2007, the Group surrendered 69 million tonnes in respect of emissions generated in 2006. In 2006, the Group surrendered 71 million tonnes in respect of emissions generated in 2005.

The Group's total quota allocation for 2007 recorded in the national registers was 85 million tonnes. The Group's total quota allocation for 2006 recorded in the national registers is 83 million tonnes (50.7 million tonnes in 2005).

The volume of emissions at December 31, 2007 stood at 90 million tonnes (87 million tonnes at December 31, 2006, 56.1 million tonnes at December 31, 2005). The provision resulting from over-quota emissions amounts to €205 million and covers the shortfall in quotas at the end of the first allocation period.

As part of the Clean Development Mechanism defined in the Kyoto protocol, the Group set up a Carbon Fund in late 2006, with the aim of supporting projects to reduce greenhouse gas emissions in emerging countries, and benefiting from emission quotas. This fund involves EDF and all the European entities, and is managed by EDF Trading.

CER (carbon emission rights) purchases through the Carbon Fund, classified as normal business transactions for companies that are members of the Fund, amount to €120.4 million at December 31, 2007.

## 40.2

# Energy savings certificates and measures to develop use of renewable energies

In all its subsidiaries, the Group is engaged in a process to control energy consumption through various measures developed by national legislations, in application of European Union Directives.

The French Law of July 13, 2005 introduced a system of energy savings certificates. Companies selling electricity, gas, heat or cold to end-users with sales above a certain level are subject to energy savings obligations for a three-year period running till June 30, 2009. They fulfill these obligations by making direct or indirect energy savings rewarded by certificates, or by purchasing energy savings certificates. At the end of the three years, the entities concerned must provide evidence of compliance with obligations by surrendering the certificates, or pay a fine to the Treasury.

For the Group's French companies, the obligation is to save 30.2 TWh over the three-year period.

At December 31, 2007, EDF and other Group subsidiaries have plans in action to obtain their energy savings certificates at the year-end, and certificates for an amount of 4.7 TWh had been awarded at that date.

In the United Kingdom, Poland and Italy, certificates are awarded when electricity is generated from renewable energy sources, to encourage greater use of renewable energies through a compensation system for generation costs. Similar systems have been introduced for cogeneration.

### **Note**

# 41

## **Subsequent events**



**41.1** Reform of the special electricity and gas sector (IEG) pension system

P.305

41.2 EDF bond issue

P.305

# 41.1

# Reform of the special electricity and gas sector (IEG) pension system

On January 22, 2008, a decree on the special pension system for electricity and gas sector (IEG) employees was issued in accordance with the French Pension Guideline Document (*Document d'Orientation sur les Retraites*) of October 10, 2007, setting forth the first modifications to the system.

The main provisions of this decree concern:

- Prolongation of the employee contribution period to qualify for a fullrate pension, raised to 40 years in 2012; subsequent changes will be identical to those applied in the standard public-sector pension system;
- Reductions and increases in pension rates. The reduction takes the form
  of a financial penalty applied for employees who have not paid contributions over a sufficient period to qualify for a full-rate pension.
  Conversely, the increase is a pension supplement applicable subject to
  certain conditions for employees who continue to work after the age
  of 60 and have paid contributions for 160 quarters.

The decree comes into force at July 1, 2008 and is due to be supplemented by further measures resulting from statutory regulations, covering matters such as introduction of a minimum pension, family and conjugal benefits, pension bonuses, and the possibility of exemption in certain circumstances from the "15-year clause" (currently, 15 years' employment in the sector is the minimum duration to qualify for an IEG pension). An agreement was signed for the IEG sector on January 29, 2008 as part

of this reform, following the principles set forth in the French Pension Guideline Document. This agreement introduces the following support measures for the changes:

- Concerning employees' salaries: a 4.31% increase at January 1, 2008 in the national minimum wage applicable to active and inactive employees, combined in the case of active employees with elimination of the 2.85% pension contribution compensation bonus, and revision of pay scales including rises in starting salaries for operative staff;
- Initial measures related to longer working lives, such as the definition of additional seniority scales and changes in the calculation methods for retirement gratuities.

Like the decree, this agreement will be supplemented by sector-specific or company-specific agreements on points still under negotiation, for example the question of how the system will take into consideration the specificities of different businesses.

As not all factors are known at the year-end, the impact of the reform and the above support measures on the Group's 2008 net income and obligations cannot be accurately determined.

## 41.2 EDF bond issue

In January 2008, EDF issued a €1.5 billion bond, placed with French and international institutional investors. The issue is part of the growing centralisation of the Group's subsidiary financing. It marks a return to the

bond markets for EDF, which last issued bonds in 2004. The issue has a ten-year maturity and forms part of the Group's policy to increase the average duration of its debt, which currently stands at six years.



# Note 42

## **Scope of consolidation**



The scope of consolidation at December 31, 2007 is as follows:

Electricité de France   (1)   100   100   Parent company   G, D, S   RTÉ EDF Transport   (1)   100   100   FC   D	Company		Head Office	% Owned	% Voting Rights	Consolidation Method	Business Sector
Name			FR	ANCE			
Company   Comp	Electricité de France	(1)		100	100	Parent company	G, D, S
Company   Comp	RTE EDF Transport	(1)		100	100	FC	T
Company   Comp	Electricité Réseau Distribution France	(1)		100	100	FC	D
Sept			UNITED	KINGDOM			
TALY	EDF Energy	(3)		100	100	FC	G, D, S
TALY			GEF	RMANY			
Edison         (3)         48.96         50         PC         G, D, S           Transalpina di Energia (TdE)         50         50         PC         S           Italenergia bis         100         100         FC         S           Wagram 1         100         100         FC         S           Wagram 4         100         100         FC         S           Fenice         (3)         100         100         FC         G           REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         G           REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         G           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF Trading         (3)         United Kingdom         100 <td>EnBW</td> <td>(3)</td> <td></td> <td></td> <td>46.07</td> <td>PC</td> <td>G, D, S, T</td>	EnBW	(3)			46.07	PC	G, D, S, T
Edison         (3)         48.96         50         PC         G, D, S           Transalpina di Energia (TdE)         50         50         PC         S           Italenergia bis         100         100         FC         S           Wagram 1         100         100         FC         S           Wagram 4         100         100         FC         S           Fenice         (3)         100         100         FC         G           REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         G           REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         G           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF Trading         (3)         United Kingdom         100 <td></td> <td></td> <td>ľ</td> <td>TALY</td> <td></td> <td></td> <td></td>			ľ	TALY			
Transalpina di Energia (TdE)         50         50         PC         S           Italenergia bis         100         100         FC         S           Wagram 1         100         100         FC         S           Wagram 4         100         100         FC         S           Fenice         (3)         100         100         FC         G           REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         G           EDF International         (1)         France         100         100         FC         S           ECK Cracovie         Poland         66.26         66.26         FC         G         G           ECK Cracovie         Poland         35.61         50         FC         G         G         EC         G         G         G         EC         G         G         G         EC	Edison	(3)			50	PC	G, D, S
Wagram 1         100         100         FC         S           Wagram 4         100         100         FC         S           Fenice         (3)         100         100         FC         G           REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF International         (1)         France         100         100         FC         S           ECK Cracovie         Poland         66.26         66.26         FC         G         G           Kogeneracja         Poland         35.61         50         FC         G         G           ECW         Poland         77.52         77.52         FC         G         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G         G           Zielona gora         Poland         35.56         99.87         FC         G         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D	Transalpina di Energia (TdE)			50	50	PC	
Wagram 1         100         100         FC         S           Wagram 4         100         100         FC         S           Fenice         (3)         100         100         FC         G           REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF International         (1)         France         100         100         FC         S           ECK Cracovie         Poland         66.26         66.26         FC         G         G           Kogeneracja         Poland         35.61         50         FC         G         G           ECW         Poland         77.52         77.52         FC         G         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G         G           Ersa (Rybnik)         Poland         35.56         99.87         FC         G         G         C         G         G         C         G         D         D         D         D         D         D         D         D         D         D         D         D <th< td=""><td></td><td></td><td></td><td>100</td><td>100</td><td>FC</td><td>S</td></th<>				100	100	FC	S
REST OF EUROPE           EDF Trading         (3) United Kingdom         100         100         FC         G           EDF International         (1)         France         100         100         FC         S           ECK Cracovie         Poland         66.26         66.26         FC         G           Kogeneracja         Poland         35.61         50         FC         G           ECW         Poland         77.52         77.52         FC         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Ersa (Rybnik)         Poland         35.56         99.87         FC         G         G           Zielona gora         Poland         35.56         99.87         FC         G         G         D           Bert         Hungary         95.57         95.57				100	100	FC	S
REST OF EUROPE           EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF International         (1)         France         100         100         FC         S           ECK Cracovie         Poland         66.26         66.26         FC         G           Kogeneracja         Poland         35.61         50         FC         G           ECW         Poland         77.52         77.52         FC         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Zielona gora         Poland         35.56         99.87         FC         G         G           Demasz         (3)         Hungary         100         100         FC         D         D           Bert         Hungary         95.57         95.57         FC         G         G         S         Société d'investissement en Autriche         France         80         80         FC         S         S         S         S         S         S         S         S         S         S         S         EM         G, S         S         S         S	Wagram 4			100	100	FC	S
EDF Trading         (3)         United Kingdom         100         100         FC         S           EDF International         (1)         France         100         100         FC         S           ECK Cracovie         Poland         66.26         66.26         FC         G           Kogeneracja         Poland         35.61         50         FC         G           ECW         Poland         77.52         77.52         FC         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Zielona gora         Poland         35.56         99.87         FC         G           Demasz         (3)         Hungary         100         100         FC         D           Bert         Hungary         95.57         95.57         FC         G           Société d'investissement en Autriche         France         80         80         FC         S           Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         100         100 <td>Fenice</td> <td>(3)</td> <td></td> <td>100</td> <td>100</td> <td>FC</td> <td>G</td>	Fenice	(3)		100	100	FC	G
EDF International         (1)         France         100         100         FC         S           ECK Cracovie         Poland         66.26         66.26         FC         G           Kogeneracja         Poland         35.61         50         FC         G           ECW         Poland         77.52         77.52         FC         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Zielona gora         Poland         35.56         99.87         FC         G           Demasz         (3)         Hungary         100         100         FC         D           Bert         Hungary         95.57         95.57         FC         G           Société d'investissement en Autriche         France         80         80         FC         S           Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         100         100         FC         S           Emosson         Switzerland         50         50         PC			REST C	OF EUROPE			
ECK Cracovie         Poland         66.26         66.26         FC         G           Kogeneracja         Poland         35.61         50         FC         G           ECW         Poland         77.52         77.52         FC         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Zielona gora         Poland         35.56         99.87         FC         G           Demasz         (3)         Hungary         100         100         FC         D           Bert         Hungary         95.57         95.57         FC         G           Société d'investissement en Autriche         France         80         80         FC         S           Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC	EDF Trading	(3)	United Kingdom	100	100	FC	S
Kogeneracja         Poland         35.61         50         FC         G           ECW         Poland         77.52         77.52         FC         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Zielona gora         Poland         35.56         99.87         FC         G           Demasz         (3)         Hungary         100         100         FC         D           Bert         Hungary         95.57         95.57         FC         G           Société d'investissement en Autriche         France         80         80         FC         S           Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         50         50         PC         G           Emosson         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC <td< td=""><td>EDF International</td><td>(1)</td><td>France</td><td>100</td><td>100</td><td>FC</td><td>S</td></td<>	EDF International	(1)	France	100	100	FC	S
ECW         Poland         77.52         FC         G           Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Zielona gora         Poland         35.56         99.87         FC         G, D           Demasz         (3)         Hungary         100         100         FC         D           Bert         Hungary         95.57         95.57         FC         G           Société d'investissement en Autriche         France         80         80         FC         S           Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         100         100         FC         G           Emosson         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC         G           Emosson         Netherlands         100         100         FC         G	ECK Cracovie		Poland	66.26	66.26	FC	G
Ersa (Rybnik)         Poland         78.63         97.05         FC         G           Zielona gora         Poland         35.56         99.87         FC         G, D           Demasz         (3)         Hungary         100         100         FC         D           Bert         Hungary         95.57         95.57         FC         G           Société d'investissement en Autriche         France         80         80         FC         S           Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         100         100         FC         G           Emosson         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC         G           Finelex BV         Netherlands         100         100         FC         G           Cinergy Holding Company BV         Netherlands         50         50	Kogeneracja		Poland	35.61	50	FC	G
Zielona gora         Poland         35.56         99.87         FC         G, D           Demasz         (3)         Hungary         100         100         FC         D           Bert         Hungary         95.57         95.57         FC         G           Société d'investissement en Autriche         France         80         80         FC         S           Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         100         100         FC         S           Emosson         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC         G           Finelex BV         Netherlands         100         100         FC         G           Cinergy Holding Company BV         Netherlands         50         50         PC         G	ECW		Poland	77.52	77.52	FC	G
Demasz (3) Hungary 100 100 FC D Bert Hungary 95.57 95.57 FC G Société d'investissement en Autriche France 80 80 FC S Groupe Estag Austria 20 25 EM G, S SSE Slovakia 49 49 PC D Groupe ATEL Switzerland 24.83 25 EM G, D, S, T EDF Alpes Investissements Switzerland 100 100 FC S Emosson Switzerland 50 50 PC G EDF Belgium Belgium 100 100 FC G Finelex BV Netherlands 100 100 FC G Cinergy Holding Company BV Netherlands 50 50 PC G	Ersa (Rybnik)		Poland	78.63	97.05	FC	G
BertHungary95.5795.57FCGSociété d'investissement en AutricheFrance8080FCSGroupe EstagAustria2025EMG, SSSESlovakia4949PCDGroupe ATELSwitzerland24.8325EMG, D, S, TEDF Alpes InvestissementsSwitzerland100100FCSEmossonSwitzerland5050PCGEDF BelgiumBelgium100100FCGFinelex BVNetherlands100100FCGCinergy Holding Company BVNetherlands5050PCG	Zielona gora		Poland	35.56	99.87	FC	G, D
Société d'investissement en AutricheFrance8080FCSGroupe EstagAustria2025EMG, SSSESlovakia4949PCDGroupe ATELSwitzerland24.8325EMG, D, S, TEDF Alpes InvestissementsSwitzerland100100FCSEmossonSwitzerland5050PCGEDF BelgiumBelgium100100FCGFinelex BVNetherlands100100FCGCinergy Holding Company BVNetherlands5050PCG	Demasz	(3)	Hungary	100	100	FC	D
Groupe Estag         Austria         20         25         EM         G, S           SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         100         100         FC         S           Emosson         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC         G           Finelex BV         Netherlands         100         100         FC         G           Cinergy Holding Company BV         Netherlands         50         50         PC         G	Bert		Hungary	95.57	95.57	FC	G
SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         100         100         FC         S           Emosson         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC         G           Finelex BV         Netherlands         100         100         FC         G           Cinergy Holding Company BV         Netherlands         50         50         PC         G	Société d'investissement en Autriche		France	80	80	FC	S
SSE         Slovakia         49         49         PC         D           Groupe ATEL         Switzerland         24.83         25         EM         G, D, S, T           EDF Alpes Investissements         Switzerland         100         100         FC         S           Emosson         Switzerland         50         50         PC         G           EDF Belgium         Belgium         100         100         FC         G           Finelex BV         Netherlands         100         100         FC         G           Cinergy Holding Company BV         Netherlands         50         50         PC         G	Groupe Estag		Austria	20	25	EM	G, S
EDF Alpes InvestissementsSwitzerland100100FCSEmossonSwitzerland5050PCGEDF BelgiumBelgium100100FCGFinelex BVNetherlands100100FCGCinergy Holding Company BVNetherlands5050PCG	SSE		Slovakia	49	49	PC	
EDF Alpes InvestissementsSwitzerland100100FCSEmossonSwitzerland5050PCGEDF BelgiumBelgium100100FCGFinelex BVNetherlands100100FCGCinergy Holding Company BVNetherlands5050PCG							
EmossonSwitzerland5050PCGEDF BelgiumBelgium100100FCGFinelex BVNetherlands100100FCGCinergy Holding Company BVNetherlands5050PCG				100	100	FC	
EDF BelgiumBelgium100100FCGFinelex BVNetherlands100100FCGCinergy Holding Company BVNetherlands5050PCG	<del></del>						
Finelex BVNetherlands100100FCGCinergy Holding Company BVNetherlands5050PCG							
Cinergy Holding Company BV Netherlands 50 50 PC G							

Company		Head Office	% Owned	% Voting Rights	Consolidation Method	Busines: Sector
Azito O&M SA		Ivory Coast	50	50	PC	G
Azito Energie		Ivory Coast	32.85	32.85	PC.	G
Dalkia Holding		France	34	34	EM	S
Edenkia		France	50	50	EM	S
Dalkia International		France	50	24.14	PC	S
Dalkia Investissement		France	67	50	PC	S
Richemont	(1)	France	100	100	FC	G
EDF Développement Environnement SA	(1)	France	100	100	FC	G
Société pour le Conditionnement des Déchets et Effluents Industriels (SOCOI	DEI)	France	51	51	FC	S
Société Provençale du Lit Fluidise (SOPRO	LIF)	France	55	55	FC	G
Tenesol		France	45	50	PC	S
Cofiva	(1)	France	100	100	FC	S
Sofinel		France	54.98	54.98	FC	S
Electricité de Strasbourg		France	88.34	88.34	FC	D
Tiru SA - Traitement Industriel des Résidus Urbains	(3)	France	51	51	FC	S
EDF Energies réparties		France	100	100	FC	S
SUPRA		France	82.36	82.36	FC	S
EDF Energies Nouvelles	(2, 3)	France	50	50	FC	G, S
Immobilière Wagram Etoile	(1)	France	100	100	FC	S
La Gérance Générale Foncière	(1)	France	99.86	99.86	FC	S
Immobilière PB6		France	50	50	PC	S
Société Foncière Immobilière et de location (SOFILO)	(1)	France	100	100	FC	S
Sapar Finance	(1)	France	100	100	FC	S
Société C2	(1)	France	100	100	FC	S
Société C3	(1)	France	100	100	FC	S
EDF Holding SAS	(1)	France	100	100	FC	S
Domofinance		France	45	45	PC	S
Farenheit Farenheit		France	99.33	100	FC	S
EDF Investissement Groupe		Belgium	66.67	50	PC	S
SLOE Centrale Holding		Netherlands	50	50	PC	G
		REST OF	THE WORLD (4)			
EDF Développement USA		USA	100	100	FC	S
Unistar Nuclear Energy		USA	50	50	PC	G
Ute Norte Fluminense		Brazil	90	90	FC	G

REST OF THE WORLD (4)							
EDF Développement USA	USA	100	100	FC	S		
Unistar Nuclear Energy	USA	50	50	PC	G		
Ute Norte Fluminense	Brazil	90	90	FC	G		
Ute Paracambi	Brazil	100	100	FC	G		
Figlec	China	100	100	FC	G		
Synergie	China	85	85	FC	G		
Shandong Zhonghua Power Company	China	19.6	19.6	EM	G		
Meco	Vietnam	56.25	56.25	FC	G		
Nam Theun Power Company	Laos	35	35	EM	G		

Consolidation methods: FC = full consolidation, PC = proportional consolidation, EM = accounted for under the equity method
Business segments: G = Generation, D = Distribution, S = Services, T = Transmission.
(1) Companies fiscally consolidated by EDF under the option initially registered on January 1, 1988.
(2) Following execution of the new shareholder agreements with the Mouratoglou group and the opening of the capital of EDF Energies Nouvelles, EDF EN and EnXco have been fully consolidated since December 31, 2006.

<sup>(3)</sup> Group (4) The Mexican companies were sold on December 27, 2007.

# Financial information on assets, the financial statements and results of the Company

20.2

# Statutory Auditors' Report on consolidated financial statements for the financial year ending December 31, 2007

#### YEAR ENDED DECEMBER 31, 2007

This is a free translation into English of the independent auditors' report on the consolidated financial statements signed and issued in the French language and is provided solely for the convenience of English speaking readers. This report includes information specifically required by French law in any auditor's report, whether qualified or not, i.e. an explanatory paragraph separate from and presented below the audit opinion discussing the auditor's assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing the audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account caption or on information taken outside of the consolidated financial statements. The report also includes information relating to the specific verification of information in the group management report.

This report should be read in conjunction with, and is construed in accordance with French law and professional auditing standards applicable in France.

To the shareholders.

Following our appointment as statutory auditors by your Annual General Meeting, we have audited the accompanying consolidated financial statements of Electricité de France S.A. for the year ended December 31, 2007.

The consolidated financial statements have been approved by the Board of Directors. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

#### 1. OPINION ON THE CONSOLIDATED FINANCIAL STATEMENTS

We conducted our audit in accordance with professional standards applicable in France. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting prin-

ciples used and significant estimates made by management, as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities, of the financial position of the Group as of December 31, 2007 and the results of its operations for the year then ended in accordance with IFRS as adopted in the European Union.

Without qualifying our opinion, we draw your attention to the following points described in the notes to the consolidated financial statements:

- the valuation of long-term provisions relating to nuclear electricity production, as described in notes 2.2.1, 31.2 to 31.5 to the consolidated financial statements, results as indicated in note 2.2.1 from Management best estimates. This valuation is sensitive to the assumptions made concerning costs, inflation rates, long-term discount rates, and forecast cash outflows as well as the results of current negotiations with Areva. Changes in these parameters could lead to a material revision of the level of provisioning;
- the approach adopted by EDF to present in the balance sheet its obligation to renew property plant and equipments used for the French public distribution of electricity, as described in note 3, is based on the specific characteristics of concession contracts. The amount of contractual obligations as calculated and disclosed to the grantors in reports is used for evaluating the obligation. An alternative approach based on the discounted value of future payments necessary for replacement of these assets at the end of their industrial useful life would result in a different representation of the obligation towards grantors. The impacts this approach would have had on the accounts are shown in note 3 for information purposes. Measurement of the concession liability concerning assets to be replaced is notably subject to uncertainty in terms of costs and disbursement dates.

#### 2. JUSTIFICATION OF ASSESSMENTS

In accordance with the requirements of Article L.823-9 of the French Commercial law (Code de commerce) relating to the justification of our assessments, we bring to your attention the following matters:

#### Accounting principles and policies

- As part of our assessment of the Group's accounting principles and methods, we have verified the appropriateness of the disclosures presented in notes 2.4, 2.10.2, 2.12 and 3.2 with respect to commitments to purchase minority interests in a fully consolidated company, to greenhouse gas emission quotas and concessions, areas which are not mandatory or specifically treated in IFRS as adopted in the European Union as of December 31, 2007.
- Note 3 indicates the conclusions of EDF's analysis on the IFRIC 12 interpretation, currently undergoing the process for approval by the European Commission. In addition, this note details the accounting changes of net allowance for renewal provisions on concessions assets on one hand, and of specific assets and liabilities related to concessions on the other hand, on the Group consolidated financial statements.

2006 comparative information has been restated to take into account retrospectively these accounting changes. Consequently, this comparative information differs from the consolidated financial statements published in 2006. As part of our assessment of the Company's accounting principles, we have made an examination of the restatement of 2006 financial information, and of the related information disclosed in notes 4.1 and 4.2.

 We have verified the appropriateness of the accounting reclassification and estimation changes applied as of December 31, 2007 to comply with measures implemented by the Law of June 28, 2006 related to the management of radioactive materials and waste as disclosed in notes 4.3 and 5.1.1.1.

As part of our assessment of the Company's accounting principles, we have made an examination of the impact these changes, and of the appropriateness of the related information disclosed in notes 31.2 to 31.5.

#### **Management Judgments and Estimates**

Note 2.2 mentions the accounting methods used by Management which are sensitive to judgments and estimates. Our procedures consisted in assessing the financial information and underlying assumptions on which these estimates are based, reviewing, on a test basis, the calculations performed by the Company, comparing last years accounting estimates with corresponding actual amounts, reviewing the procedures for approving these estimates by Management and finally verifying that the notes to the consolidated financial statements provide appropriate disclosures with respect to the assumptions adopted by the Group.

These assessments were made in the context of our audit of the consolidated financial statements taken as a whole and therefore contributed to the opinion we formed which is expressed in the first part of this report.

#### 3. SPECIFIC PROCEDURES

In accordance with professional standards applicable in France, we have also verified the information relative to the Group, given in the management report. We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

Paris La Défense and Neuilly-sur-Seine, February 19, 2008

The Statutory Auditors

KPMG Audit

Department of KPMG S.A..

Deloitte & Associés

Jean-Luc Decornoy

Michel Piette

Amadou Raimi

Tristan Guerlain

# Financial information on assets, the financial statements and results of the Company



# 20.3

## Fees paid by the Group to statutory auditors

The following table sets forth the fees related to the 2007 financial year for EDF and its fully consolidated subsidiaries for services by its statutory auditors and their respective affiliates:

	Deloit	KPMG		
	Amount	%	Amount	%
(In thousands of euros)	(taxes exclude	d)	(taxes exclud	ed)
Audit:				
Statutory audit, certification, review of company and consolidated accounts				
• Issuer	4,388	43.7	3,902	56.2
Fully consolidated subsidiaries	3,815	38.0	2,651	38.2
Other tasks and services directly connected to the statutory auditor's mission				
• Issuer	318	3.1	254	3.7
Fully integrated subsidiaries	847	8.4	72	1.0
Sub-total Sub-total	9,368	93.2	6,879	99.1
Other services provided by the auditors' networks to fully integrated subsidiaries:				
Legal, tax, social	343	3.4	53	0.8
Other (specify if >10% of auditor's fees)	338	3.4	10	0.1
Sub-total Sub-total	681	6.8	63	0.9
TOTAL	10,049	100	6,942	100

All of EDF's statutory auditors were renewed for 6 years from the 2005 financial year.

The fees were approved for each auditor after the process of necessary discussions and deliberations.

#### The information given for the 2006 financial year:

	Deloit	KPMG		
	Amount	%	Amount	%
(In thousands of euros)	(taxes exclude	d)	(taxes exclud	ed)
Audit:				
Statutory audit, certification, review of company and consolidated accounts				
• Issuer	3,218	37.7	2,960	48.8
Fully consolidated subsidiaries	3,155	37.0	2,660	43.8
Other tasks and services directly connected to the statutory auditor's mission				
• Issuer	650	7.6	299	4.9
Fully integrated subsidiaries	803	9.4	0	
Sub-total	7,826	91.7	5,919	97.5
Other services provided by the auditors' networks to fully integrated subsidiaries:				
Legal, tax, social	619	7.3	35	0.6
Other (specify if >10% of auditor's fees)	89	1.0	114	1.9
Sub-total	708	8.3	149	2.5
TOTAL	8,534	100	6,068	100

In 2006, KPMG network's fees include the tasks carried out in relation to the initial public offering of EDF Energies Nouvelles.

## 20.4

## **Dividend policy**

#### 20.4.1 Dividends paid to the French State

## **20.4.1.1** DIVIDENDS PAID BEFORE THE TRANSFORMATION OF EDF INTO A FRENCH SOCIÉTÉ ANONYME

Between 2001 and 2003, the method of calculating the dividend was defined in the Group contract signed on March 14, 2001 between the French State and EDF. It was equal to 37.5% of the Group share of net income and was supposed to increase by between a minimum of 1.5% and a maximum of 4.5% of the shareholders equity (Group share).

## 20.4.1.2 DIVIDENDS PAID FOLLOWING THE TRANSFORMATION OF EDF INTO A FRENCH SOCIÉTÉ ANONYME

Since the transformation of EDF into a French *société anonyme*, the establishment and payment of dividends have been carried out in accordance with the rules applicable to French sociétés anonymes. For the financial year ended on December 31, 2006, the annual Shareholders' Meeting held on May 24, 2007 decided on the payment of a dividend of €1.16 per share, equivalent to a total amount of €2,113,624,504.40 (excluding repurchased shares), which has been paid out.

Total dividend

#### 20.4.1.3 DIVIDENDS AND INTERIM DIVIDENDS PAID WITHIN THE LAST THREE YEARS

The amount of dividends and interim dividends paid within the last three years was as follows:

			distributed in euros	
			(excluding	<b>Payment Dividend</b>
Financial year	Number of shares	Dividend per share	repurchased shares)	date
2004 (*)	1,625,800,000	€0.23	373,934,000.00	6 July 2005
2005	1,822,171,090	€0.79	1,439,170,388.51	20 June 2006
2006	1 822 171 090	<b>€</b> 1.16	2 113 624 504 40	4 June 2007

<sup>(\*)</sup> Dividends paid to the French State.

In addition, during its meeting dated November 7, 2007, the EDF Board of Directors has decided, for the financial year 2007, to pay on November 30, 2007 an interim dividend of €0.58 per share; equivalent to a total amount of €1,056,809,460.08 (excluding repurchased shares), which has been paid out.

#### 20.4.2 Dividend distribution policy

The dividend distribution policy of EDF is determined by its Board of Directors. It takes into account, in particular, the Company's results and financial situation as well as the dividend distribution policies of the main French and international companies in the sector. EDF's current target is a distribution rate of 50% of Group share net income, excluding non-recurring items. This target is, under no circumstances, to be interpreted as a commitment by EDF. Future dividends will depend, in particular, on the Group's earnings, financial position and all other factors that the Board of Directors may consider relevant.

Furthermore, the EDF Board of Directors' meeting of November 7, 2007, set itself the target of paying at the end of every year, an interim dividend for

the current year, provided the legal, accounting, economic and financial conditions so permit. For the 2007 financial year, the Board of Directors decided to make payment on November 30, 2007, of an interim dividend of €0.58 euros per share.

At its meeting of February 19, 2008, the Board of Directors decided to propose to the shareholders meeting of May 20, 2008 the distribution of a dividend amounting to €1.28 per share (of which, given the interim dividend, an amount of €0.70 per share remains to pay). If this proposal is approved, the dividend will be paid within 30 days following the shareholders meeting. The Supervisory Board of the FCPE Actions EDF notified to EDF a draft resolution which purpose is to reduce the dividend amount (i.e €0.84 per share against €1.28 per share). This draft resolution, reviewed by the Board of Directors of EDF during its April 3, 2008 meeting, will not be recommended by it.

#### 20.4.3 Prescription

Dividends on shares that are not claimed within five years of the date of declared payment revert to the French State.



# 20.5

### Legal and arbitration proceedings

In its everyday business, the Group is involved in a certain number of legal, arbitration and administrative proceedings.

The charges that may result from these proceedings are only provisioned if they are likely to occur and if their amount can be quantified, or assessed within a reasonable range, in which case, the amount provisioned is determined based on the best possible estimate. The provisions made are based on an appraisal of the level of risk in each case and do not initially depend on the progress of the proceedings. However, events that occur during the proceedings may nonetheless lead to a reappraisal of the risk.

Other than the proceedings described below, as well as the proceedings and/or investigations set forth in Chapter 6 of the present document, and excluding subsidiaries and holdings where the Group does not have operational control, in particular, EnBW and Dalkia, to the knowledge of the Company there is no other legal, governmental or arbitration proceedings (including those pending or which could reasonably result in the future), which had in the last 12 months or may have material effects on the Company and/or the Group's profits or business situation.

The potential proceedings and disputes concerning EnBW cannot be included in this statement since EnBW, itself listed on the Frankfurt and Stuttgart stock exchange markets does not communicate on those issues in a manner as detailed as French companies do. Nevertheless, EDF is not aware of any proceedings, that had in the recent past, or that the EDF Group's management believes could reasonably result in the future, in a material adverse effect on its consolidated financial situation, other than those publicly released in Germany and those for which a provision has been recorded in EnBW's financial statements. Regarding Dalkia, EDF holds only 34% of the share capital of this company, the remainder being entirely held by Véolia Environnement.

#### 20.5.1 Legal proceedings concerning EDF

#### FRENCH STATE AID

Through a letter dated October 16, 2002, the European Commission initiated proceedings against France, claiming that State aid had been granted to EDF when its balance sheet was restructured on January 1, 1997. By a decision dated December 16, 2003, the European Commission set the amount of aid to be repaid at €889 million (principal). On February 11, 2004, the French State issued a collection note for €1,224 million, comprised of the aid principal to be repaid, plus interest, which was paid by EDF. On April 27, 2004, EDF filed an appeal with the European Court of First Instance to have the decision of the European Commission reversed. On November 14, 2004, the French State filed a brief in support of EDF's appeal. At the time of the present document, the date for the hearing has not yet been set up.

#### SAINT CHAMAS/ETANG DE BERRE POWER PLANT

In 1999, the professional association "Coordination des pêcheurs de l'étang de Berre" (the "Association") initiated a proceeding for "voie de fait" in the civil courts against EDF, arguing that the authorization to operate the hydroelectric plant at Saint Chamas was not valid, since it did not comply with the environmental requirements provided for in the two international conventions concerning the protection of the Mediterranean Sea and its lagoons against pollution from land-based sources: the Barcelona Convention (of February 17, 1976) and the Athens Protocol (of May 17,

1980). Due to the fact that although both of these regulations were approved at the European level, they were not transposed into or applied in French law, the Association's claim was dismissed by the trial court (Tribunal de Grande Instance) of Marseille and by the court of appeals (Cour d'appel) of Aix-en-Provence. The supreme court (Cour de cassation) questioned the European Court of Justice (ECJ) for a preliminary ruling concerning the direct applicability of such Conventions in French law. On July 15, 2004, the ECJ ruled that the provisions of the Conventions were both clear and precise, and therefore directly applicable under French law. The French Cour de cassation, in a judgment dated March 8, 2005, therefore referred the case to the court of appeals of Lyon. The hearing took place on December 4, 2006 and on January 22, 2007, the court ruled that the facts alleged could not be accepted because the non compliance of the authorization legally granted to EDF concerning facility's waste (operation authorization of April 22, 1997) to the requirements provided for by the international conventions, could not be considered as a significant irregularity, considering the operation of the public facility. The fishermen association filed an appeal before the French Cour de cassation on March 29, 2007 against the Lyon Court of Appeals' decision of January 22, 2007 then withdrew it.

In parallel, a formal notice had been addressed to the French State by the European Commission in 1999, followed by a founded opinion in 2000, after the Association filed a second appeal before the Commission, which considered the French answer to be insufficient and brought the matter before the ECJ. On October 7, 2004, the ECJ ruled that France had breached its obligations by failing to implement all necessary measures for the implementation of the international conventions and that the operation authorization granted in 1997 did not meet the requirements provided for in such conventions. On February 25, 2005, the French government sent the European Commission a memorandum stating specifically that:

- a new decree would amend the specifications of the concession within one year:
- there would be a trial phase of four years, during which measures would be taken aimed at reducing the variations of salinity by regulating discharges of fresh water;
- silt discharges would be reduced to 60,000 tons per year; and
- this trial would be supervised by an international scientific committee.

On December 14, 2005, the European Commission addressed a new formal notice to the French government, judging the proposed measures to be inefficient. At the beginning of March 2006, the French government made new additional proposals to the European Commission aiming at reducing significantly wastes in fresh water.

Following several discussions between the French State and the European Commission, the thresholds for waste discharges of fresh water were finally settled at 1.2 billion cubic meter and a minimum requirement for salinity of the "Etang" was set up.

On December 9, 2006, the decree amending the concession's specifications, which includes the fresh water disposal thresholds and the salinity requirement agreed with the European Commission, was published and while waiting for the outcome of this trial phase, a new complaint before the ECJ seems to be excluded.

EDF considers that the new restrictions concerning fresh water disposals resulting from this decree will have a significant impact on Saint Chamas power plant's generation capacity.

#### NATIONAL ASSOCIATION OF INDEPENDENT PRODUCERS (SYNDICAT NATIONAL DES PRODUCTEURS INDÉPENDANTS, OR "SNPIET")

In 1996, the Competition Council (Conseil de la concurrence) ruled against EDF on the basis that it had abused its dominant position by hindering the conclusion of electricity supply agreements with independent providers. The SNPIET as well as approximately 20 producers, following the ruling, applied for damages in the amount of €70 million at the commercial court (Tribunal de Commerce) of Paris.

On July 2, 2002, the court of appeals of Paris overruled the commercial court's decision which had partially ruled in favor of the SNPIET claim, on the grounds that jurisdiction fell to the Administrative Courts (and not to the civil court in question). The supreme court, in a judgment dated September 29, 2004, upheld the ruling on the administrative jurisdiction.

On December 12, 2005, EDF received from SNPIET a petition for a right of review which is a necessary condition for a litigation to take place in an Administrative Court. Within the framework of this petition, SNPIET is asking for €160 million.

In a letter dated February 9, 2006, EDF refused the producers' preliminary claim, which led 11 of them to file an appeal on June 11, 2006 to obtain damages before the Paris Administrative Court, which transferred their claims before the local Administrative Courts.

On July 20, 2007, the parties signed a settlement agreement in final conclusion of the dispute.

#### **ASBESTOS**

EDF has used products containing asbestos in the past. As such, certain employees, namely some working on fossil-fired power plant maintenance engineers, may have been exposed before replacement or protection measures implemented starting in the end of the 1970's.

In France, EDF was the subject of close to 440 proceedings, between 1997 and the end of December 2007, which alleged gross negligence in connection with the asbestos exposure of its employees in their working environment. If gross negligence is admitted, it may lead to the payment of additional compensation by the employer to victims or their assignees.

Since June 2004, EDF has also agreed not to appeal rulings made by Social Security Case Panels (Tribunaux des Affaires de Sécurité Sociales, "TASS") which recognized the employer's gross negligence (FIE).

By the end of 2007, the total amount of EDF's cumulated final condemnations attained approximately 16.7 million for judicial actions recognizing employer's gross negligence.

As of December 31, 2007, an amount of approximately €30 million is provisioned in EDF's financial statements with respect to the legal proceedings relating to the compensation of victims of asbestos.

#### **DIRECT ENERGIE**

On February 22, 2007, Direct Energie referred a complaint to the French Competition Council (Conseil de la concurrence) with a request for precautionary measures, criticizing EDF for committing practices allegedly constituting an abuse of its dominant market position. In its decision of June 28, 2007, the French Competition Council required EDF to negotiate in good faith with Direct Energie an interim contract of a minimum

one-year period for wholesale procurement at a price reflecting its total generation costs, and to propose a wholesale supply offer or any other solution allowing alternative suppliers to compete effectively with EDF's retail offers on the free market. In its decision, the Council stated EDF could, as it had proposed during the hearing of June 20, 2007, respond to the injunction with a commitment (in compliance with the procedure set out in Article L. 464-2 I of the French Commercial Code) before July 14, 2007.

EDF formalized its commitment on July 13, 2007. It was published, together with a summary of the case, on the Council's website on July 19, 2007, and subjected to a market test to compile comments by interested third parties before September 15, 2007. Modifications were made to take into consideration various observations made by third parties.

By a decision dated December 10, 2007, the Competition Council accepted and rendered mandatory the commitments proposed by EDF, that is, to make available to alternative energy suppliers, a substantial quantity of electricity – 1,500 MW, that is approximately 10 TW/year for fifteen years – at price levels allowing effective competition with EDF's offers on the mass free mar-

For the first-five year period, from 2008 to 2012, EDF proposed an average baseload supply price of €42/MWh at current euros. This price, fixed at €36.8/MWh for the first year, will increase gradually until 2012.

Regarding the second ten-year period, it was stipulated the price should be fixed to cover the development costs of the EPR at Flamanville (that is €46/MWh at 2005 euros), a condition necessary for long term sustainable development of the electricity industry.

It is anticipated that these volumes will be allocated by an ongoing auction process based on three invitations to tender: two in 2008 and one in 2009. The auctions will affect the prices the purchasers are prepared to pay to benefit, at the end of the first five years, for a further ten years for electricity at the EPR development cost. The minimum capacity accessible to each purchaser is 1 MW.

Direct Energie lodged an appel against this decision before the Court of Appeal of Paris.

In addition, Direct Energie referred a complaint to the French Competition Council (Conseil de la concurrence) criticizing EDF's infringement of the injunction n° 2 of the Council's decision dated June 28, 2007 referred hereinabove, by which the Council committed EDF to "negotiate in good faith with Direct Energie, as EDF offered it in sitting, a transitory agreement of a one-year minimal length allowing the wholesale supplying of Direct Energie for a cost reflecting EDF's total production costs, until the implementation of the mechanism provided for by article 1 of the decision".

#### **KALIBRAXE**

On January 22, 2007 KalibraXE submitted a complaint concerning alleged anti-competition practices committed by EDF to the Competition Council. The application for a remedy was accompanied by a request for conservatory measures.

On the merits, KalibraXE maintained the practices of EDF had notably, as their purpose and effect, "purely and simply led to the elimination of KalibraXE and more generally, of any new competitor on the market" and "preventing final consumers from freely choosing a supplier or buying from several suppliers".

#### Financial information on assets, the financial statements and results of the Company



Considering in addition that these practices denied Kalibra XE "not only the opportunity to enter into new contracts but also, to continue its contractual relations with existing customers since it could not generate a profit on its investments" and furthermore, constituted an attack on the interests of consumers, the industry and the wider economy, KalibraXE requested conservatory measures, in particular. the suspension of exclusivity clauses in EDF contracts.

On April 25, 2007 the Competition Council considered the case was admissible on its merits but rejected the conservatory measures sought by KalibraXE.

Nonetheless, as a conservatory measure, the Council did instruct EDF to modify its general conditions of sale and inform those customers who had exercised their rights of eligibility that no penalty would be incurred on the normal expiry date of their supply contracts, and to submit to the Council a copy of the amended general conditions of sale. KalibraXE appealed against this decision; on June 26, 2007 the Court of Appeal of Paris rejected the appeal.

#### **EPR**

In relation to EPR's development works, several actions were initiated by different associations before the Caen Administrative Court:

- a motion for summary judgment (recours en référé) suspending works in progress, filed on October 11, 2006 against the building permit. The hearing took place in front of the Caen Administrative Court on October 24, 2006 and the motion has been repealed on October 26, 2006 for lack of emergency;
- two actions for cancellation filed on August 23, 2006 and October 11, 2006 against the building permit granted by the *Préfet* and two actions for cancellation filed on September 11, 2006 against the public seaborne domain works permit and the permit concerning other facilities and works, granted by the *Préfet*. These various actions were repealed by the Caen Administrative Court in March 15, 2007.

Appeals for annulment of the decree authorizing creation were submitted by three associations to the French Council of State on June 5, 2007.

#### LABOR LITIGATION

EDF is party to a number of labor lawsuits with employees regarding the calculation and implementation of rest periods. EDF estimates that none of these lawsuits, individually, is likely to have a significant impact on its profits and its financial situation. However, because they are likely to involve a large number of EDF's employees in France, these lawsuits could present a systemic risk which may have a material negative effect on the Group's profits.

The Group is also a party to other litigations with social bodies. The main one is between EDF and the "URSSAF" in Toulouse relating to the inclusion of certain bonuses, indemnifications and other benefits in kind in the tax base. As of December 31, 2007, an amount of €299 million was provisioned in EDF's consolidated financial statements with respect to litigation with social authorities (see note 31.7 to the financial consolidated statements for the year ending December 31, 2007.).

#### **ENVIRONMENTAL LAWSUITS**

Due to its industrial business, the Group is party to various environmental lawsuits, in particular, regarding ground decontamination. As of the date of the registration of this Document, the Group believes that none of these lawsuits, individually, is likely, in the event of an unfavorable outcome, to have a material, negative effect on the Group's profits.

#### TAX LITIGATION

EDEV's tax audit carried out in 2005 regarding 2002 and 2003 financial years led to an assessment of €14.5 million in overdue taxes. Since the disagreement with the tax authorities concerning the proposed adjustments persists, an application originating proceedings was submitted to the Paris Administrative Court on April 13, 2007.

#### ORIGINATION OF PROCEEDINGS BY THE EUROPEAN COMMISSION AGAINST THE EDF GROUP REGARDING LONG-TERM ELECTRICITY **SUPPLY CONTRACTS**

On July 18, 2007 the European Commission decided to originate proceedings against the EDF Group regarding its business in France, for entering into long term electricity supply contracts alleged to have tied up the market, thus constituting an abuse of a dominant position pursuant to Article 82 of the EU Treaty.

The origination of proceedings was incorporated, in particular, in the extension of a sector-specific inquiry conducted by the Commission, of the European electricity and gas markets initiated on June 12, 2005. The results were published on January 10, 2007 in the Final Report on the sector-specific inquiry into energy markets.

This does not indicate the Commission already has sufficient evidence of the presumed infringement.

At this stage, EDF does not figure in the Commission's detailed timetable.

#### ALCAN SAINT JEAN DE MAURIENNE

On December 31, 1985 EDF, Péchiney (now ALCAN France) and Aluminium Péchiney signed an energy supply contract (2 TWh) intended primarily to supply the Péchiney primary aluminum plant at Saint Jean de Maurienne, according to the terms of which EDF undertook to supply quantities of electricity for a fixed price. The duration of the contract was modified by additional clauses; it expires in January 2012 for the Saint Jean de Maurienne plant.

Following various letters from ALCAN France requesting an extension of the contract, on August 2, 2007, ALCAN France and Aluminium Péchiney served a writ on EDF to appear before the Paris Commercial Court on September 21, 2007, for a preliminary hearing of the proceedings. The last hearing of the proceedings foreseen on October 22, 2007 has been successively deferred in turn on November 9, 2007, January 28, 2008 and lastly on March 10, 2008 (for findings registration).

ALCAN France and Aluminium Péchiney requested the Court to judge and state that:

- the contract obliged EDF to take into account foreseeable changes in the lifetime of nuclear power plants and their availability;
- the lifetime of the contract should be aligned with that of the power plants;
- failure to align the contract with the lifetime of the power plants involved a loss of profit for the supply of 11.2 TWh.

#### REE

In the early 1990s, EDF and Red Electrica de Espana (REE) entered into a basic contract regarding the making available by EDF to REE of energy generation at the point of interconnection between the French and Spanish electricity networks, and a peak contract allowing ad hoc suspension of deliveries. From the time they were signed until the end of 2005, the contracts benefited form priority access to the interconnection.

In a judgment of June 7, 2005, the CJEU declared the priority access contrary to European law.

The Commission issued an injunction instructing national regulators to eliminate priority access rights to the interconnection and to put in place, for all transactions, a bidding scheme for acquisition of the rights; the French Electricity Regulation Committee (Commission de regulation de l'électricité or CRE) complied with the injunction on December 1, 2005.

EDF and REE, which then had to reach an understanding on the conditions for the extraction of energy and acquisition of the interconnection access rights so that REE could import energy to Spain, were unable to reach agreement for the first few months of 2006.

REE originated international arbitration proceedings against EDF and EDF Trading, notified by the ICC (International Chamber of Commerce) on June 13, 2007, for compensation for the alleged damages. EDF also claimed it had suffered damages caused by REE during that time. The dispute is limited to deliveries during the period January – May 2006.

The deed of mission for the Court of Arbitration was signed on January 19, 2008. The Court should pronounce its judgment by the end of 2008.

#### **ARCELOR**

EDF and USINOR (now ARCELOR) entered into an electric energy sale master agreement on November 30, 1999. This master agreement provided that USINOR's site, when they would become eligible, could replace their "Existing Agreements" by new "Sale Agreements" under the master agreement's conditions. This integration provision has been repeatedly applied when contractual conditions were fulfilled

Following the group's restructuring, ARCELOR has demanded on September 2006, to integrate Mittal Steel Gandrange and the Company Métallurgique de Révigny.

EDF has refused the automatic extension of the master agreement, indicating to ARCELOR that the extension could intervene only under price conditions to be defined between the parties. Depite of several meetings, it has been impossible to find an agreement and ARCELOR, Mittal Steel Gandrange and the Company Métallurgique de Révigny have brought a proceeding against EDF on January 29, 2007 on the substance of the case and without delay, before the Commercial Court of Paris.

The Commercial court of Paris has pronounced its judgment on July 4, 2007. The latter has:

- Ordered EDF to sign a supply agreement under the master agreement's conditions, with Mittal Steel Gandrange and the Company Métallurgique de Révigny, from the effective termination date of the agreements with their suppliers;
- Ordered EDF to pay damages to the three companies;
- Ordered an expert's report to assess the damage sustained by the three companies;
- Fixed the provision amount to deposit for this purpose by Arcelor France to €2,500; and
- Ordered EDF to pay to each of the three companies, €25,000 pursuant to article 700 of the French Civil procedure Code and ordered the provisional enforcement of the decision.

EDF has decided to lodge an appeal against this decision and has notified its findings on August 7, 2007. The hearings have been fixed, to the date of this *Document de Référence*, on September 24, 2008.

#### **SECAM**

By a decision dated December 10, 1996, upheld by the Court of Appeal of Paris, the Competition Council sentenced EDF for abuse of its dominant market position for having prevented the execution of electricity purchase agreements with independent producers between 1993 and 1995. Following this sentence, the National Association of Independent Producers and heat enginners (SNPIET), and approximately twenty producers have introduced an action in payment of damages before the Commercial court of Paris (for the SNPIET dispute settlement, see above).

On April 4, 2007, EDF received from the SARL SECAM an administrative appeal prior to referral to the administrative judge. The SARL SECAM which was not party to the proceedings before the Competition Council and civil Courts is claiming €79 millions.

By letter dated May 29, 2007, EDF rejected the preliminary request of this company. This result in, the SARL SECAM lodging an action for compensation before the administrative Court of Paris, which has decided that this case should be heard by the administrative Court of Chalons-en-Champagne. EDF has filed a statement of defence during autumn 2007.

## 20.5.2 Legal proceedings concerning EDF's subsidiaries

#### • RTE-EDF TRANSPORT

The transfer of high voltage lines to the SNCF

Pursuant to the French Law of December 30, 1982 relating to inland transport, in accordance with the Law n°2004-803 of August 9, 2004, the high voltage lines transferred to the SNCF on January 1, 1983 (as equipment related to the public transmission network), must be transferred for consideration to RTE-EDF Transport within one year as from the creation of this company.

The SNCF and RTE have considered a sale of this equipment since 2002 and have worked together in determining the value of this equipment on the basis of objective criteria. However, this valuation process was disrupted due to a dispute concerning the appraisal amount still existing.

As a consequence, RTE-EDF Transport requested on July 2007 from Minister for Economy, Finance and Employment on one hand and Minister for Ecology and sustainable Development on the other hand, the implementation of an ad hoc commission provided by article 10 of the Law 2004-803 dated August 9, 2004 which will rule the dispute between the parties.

This commission is not implemented at the date of this Document de Référence.

#### Agreement for the annual rent with SNCF

RTE-EDF Transport pays SNCF an annual rent of €3.1 million per year for the use of the facilities and installations of the high voltage electricity transmission network that was transferred to SNCF by the French Law of December 30, 1982. The amount of this rent has been determined by RTE in accordance with the principles used to remunerate its own assets, based on net book value, in the framework of public transmission network tariff. The payment of this rent of €3.1 million follows the termination by RTE in 2001

# Financial information on assets, the financial statements and results of the Company



of the contract entered into with SNCF on December 22, 1999.

By way of an administrative order claim on February 22, 2002, SNCF initiated a procedure against RTE-EDF Transport before the Administrative Court (*Tribunal Administratif*) of Paris contesting the new amount of the annual rent paid to SNCF by RTE-EDF Transport and claiming the difference with the initial rent.

Following the referral to the Administrative Court of Paris, the investigation closed a first time, has been opened again until December 31, 2007. At this date no hearing date has been fixed.

In consistency with the referral of the Commission, RTE-EDF Transport has reviewed the assessment of the potential rent recovering risk already made, in connexion with a future valuation by the ad hoc commission, of the work given by SNCF.

#### • EDISON

## Action initiated by ACEA SPA concerning Edison's shareholding in Edipower

On May 2006, ACEA SpA ("ACEA"), Rome's municipal utility, addressed a complaint to the Italian government and to Italian regulation (AEEG) and competition (AGCM) authorities, alleging that the joint takeover of Edison by EDF and AEM had exceeded the upper limit of 30% of the share capital of Edipower held by public corporations (that limit was defined a decree issued by the Italian Prime Minister, dated November 8, 2000, which defined the rules applicable to the privatization of the companies (called Gencos) then held by Enel SpA).

On July 7, 2006, the AGCM rendered an opinion ("segnalazione") supporting ACEA's position and officially requiring from the Italian government and parliament that measures be taken in order to comply with the provisions of the November 8, 2000 decree.

On August 2006, ACEA initiated an action against EDF, IEB and WGRMH Holding 4 (along with Edison, AEM Milan (now A2A), Delmi, Edipower, AEM Turin, Atel and TdE) before the civil court of Rome.

According to ACEA, the fact that the 30% threshold was exceeded constitutes a violation of the applicable laws and could have a negative impact on the competition on the energy market and on consumers' interests.

Therefore, acea has required the court to:

- $\bullet$  acknowledge EDF and AEM's unfair behavior;
- force EDF and AEM to sell their stakes in order to remain within the 30% limit and inhibit them to take and use energy for the amount above 30%;
- indemnify ACEA's prejudice, which amount is still under evaluation.

ACEA has also indicated that it would require the court to take conservatory measures in order to guarantee its interests while waiting for the court's ruling.

Since January 2007, Endesa Italia is also a party to the proceedings against EDF and AEM, which nevertheless has no effect on the proceedings' evolution and schedule. The judge has rejected the addition to the file of a note from ACEA (new evidence) which assessed the damage sustained to €800 million.

The next hearing relating to the substance of the case and the evidence

used by ACEA to assess is damage ix fixed on June 26, 2008. As EDF and its susdiaries have refused the *inter partes* proceeding on ACEA's demand of damage assessment, a potential decision of the Italian judge in favor of this assessment should not be binding for EDF.

#### Action initiated by C. Tassara concerning Italenergia BIS' warrants

Italenergia Bis (IEBIS) is an Italian holding company which held, in 2002, 63% of the share capital of Edison, another Italian company. At that time, IEBIS shareholders were Electricité de France (EDF), C. Tassara, Fiat and three Italian banks.

In September 2002, in order to be able to acquire the control of IEBIS and consequently of Edison, EDF entered into a put and call options agreement with each one of IEBIS' shareholders, under which it would have the right (and eventually the obligation) to purchase, in 2005, all of their shareholdings in IEBIS. Such Put and Call agreements, except for the one entered into with C. Tassara, concerned IEBIS' shares as well as IEBIS' warrant held by each shareholder. The agreement entered into with C. Tassara was expressly limited, at his demand, to his IEBIS shares and which represent 20% of the company's share capital.

Several discussions and letter exchanges followed (in November and December 2002) aiming to amend that Put and Call agreement so that it would include C. Tassara's IESBIS' warrants, in exchange of a preemptive right granted over his shareholding in Edison. However, the parties were unable to reach an agreement and no changes were made to the September 16, 2002 agreement which remained limited to IEBIS' shares.

On April 20, 2005, C. Tassara and the other IEBIS shareholders exercised their put options on IEBIS' shares and the transfer of the shares took place on July 26, 2005.

On April 14, 2006 C. Tassara initiated an action before the civil court of Milan against EDF, IEBIS, IEBIS' directors and Transalpina di Energia (TdE) to obtain that EDF complies with its supposed commitment to buy his IEB warrants for an amount of €20.4 million.

In addition to its main claim, C. Tassara's subsidiary claims concern the sale by IEBIS to TdE of its controlling share stake in Edison, which Mr. Tassara considers to be contrary to IEBIS' company interest and he consequently requires that the court avoids such sale and awards damages for an amount of approximately €122 million.

The defendants all filed their final pleadings on December 2006. Among others, EDF has contested the competence of the Milan civil court, since Put and Call agreement includes a provision stating that all disputes shall be ruled by an arbitrary court in Geneva. In parallel, EDF has filed an arbitration demand before the Geneva's Chamber of Commerce and Industry on November 7, 2006.

On October 31, 2007, the Geneva arbitration tribunal issued its decision on the case, deciding in favor of EDF. It decided it was competent to decide on the warrants issue and that there had been no agreement between the Parties as to the repurchase by EDF of the IEB warrants held by Tassara.

A request for exequatur of the arbitral decision was made in Italy by EDF on November 7, 2007 before the Brescia court of appeal. The same day, during a hearing before the Milan court, EDF presented the arbitral decision and asked the tribunal to suspend the procedure until the Brescia court of appeal ruled on the exequatur request.

On November 19, 2007, the president of the Brescia court of appeal issued an exequatur decision; the arbitral decision is therefore binding and may be performed in Italie.

On December 27, 2007, C. Tassara filed an appeal before the Swiss federal tribunal against the arbitration tribunal's decision. By a decision dated March 6, 2008 Swiss federal tribunal dismissed the appeal filed-by C. Tassara.

C. Tassara also filed before the Brescia court of appeal a motion to annul the exequatur decision. During a hearing dated March 12, 2008, the Brescia court of appeal fixed a hearing date on October 15, 2008.

Lastly, on February 13, 2008, the Milan tribunal issued its decision: it held that it was competent to rule on the warrants issue but rejected all of C. Tassara's demands (the main and the subsidiary demands). C. Tassara may file an appeal before the Milan court of appeal until February 12, 2009.

#### Arbitration proceedings concerning the sale of Ausimont

The discovery phase of the arbitration proceedings filed on May 19, 2005 against Edison by Solvay Sa and Solvay Solexis Spa, following several disputes between the parties with respect to the representations and warranties contained in the contract covering Edison's sale of its interest in Agorà Spa (parent company of Ausimont Spa) was closed during the hearing that took place on March 2007. During that same hearing, the arbitration committee gave the parties a deadline to file their briefs.

## Proceeding initiated by the holders of the saving shares and UBS for damages caused by the merger of Edison into Italenergia

On August 9, 2002, the representative of holders of the savings shares challenged Edison's extraordinary meeting of June 27, 2002's resolution, which decided on the merger of Edison into Italenergia. He requested that implementation of the resolution be suspended, the resolution be avoided and that Edison's responsibility be recognized for all damages caused by the merger to holders of the savings shares.

On October 9, 2002, the Court of Milan refused the request to suspend the merger.

On April 29, 2003, UBS voluntarily joined the action and asked that Edison be ordered to pay damages for the loss in value of Edison shares and the fixing of a share exchange ratio penalizing the shareholders of Edison and therefore those of UBS.

The Court-appointed expert has filed his report in which he found that while the valuation criteria used were indeed adequate, there were some flaws in the valuation process (lack of control methods) and instances of incorrect application of the criteria that may have caused damage for the savings shareholders.

The proceedings have not been subject to any significant developments since the expert filed his report.

The judge fixed the hearings on may 15, 2008.

## Claims brought by employees concerning exposure to asbestos or other harmful chemical substances.

In recent years, Edison has had to face a significant increase in the number of claims for damages arising from the deaths or illnesses of employees that

were allegedly caused by exposure to several forms of asbestos at factories owned by Montedison (having become Edison), or judicial cases taken over by Edison as a result of corporate acquisitions. In addition to provisions established specifically for certain pending disputes currently underway, Edison has decided to set aside a provision of an amount estimated on the basis of the average between the value of the claims for damages that it has received and paid in recent years for similar events and the claims that it has received so far as a result of judicial and extrajudicial proceedings.

Furthermore, Edison is involved in several criminal proceedings filed by former employees of companies belonging to the Edison group or their legal successors, arising from exposure to harmful chemical substances emitted by Montedison's facilities (since transferred to Enimont).

#### Litigation concerning environmental matters

Edison is involved in several criminal proceedings currently underway concerning damages caused by the operation of Montedison's chemical factories (petrochemical facilities at Porto Marghera, Brindisi, Mantua, Priolo (Syracuse) and Cesano Maderno) belonging to the group prior to their transfer to Enimont. These criminal proceedings also include actions brought by third parties concerning physical injuries linked to the alleged environmental damages.

#### • BERT AND EC ZIELONA GORA S.A.

#### Appeal against European Commission's ruling with regard to state aids

On March 3, 2006, BERt, an EDF Group subsidiary, and on May 12, 2006, EC Zielona Gora S.A., a generation subsidiary of ZEW Kogeneracja S.A. (itself controlled by the EDF Group, including EDF I, ECK and EnBW), initiated a judiciary proceeding before the first instance court of Luxembourg by filing an appeal against the opening of an investigation regarding long-term electric energy purchase agreements ("PPA"), decided on November 2005 by the European Commission pursuant to article 88, paragraph 2 of the EC Treaty.

The Commission considers that, following its formal investigation against Poland and Hungary regarding the compliance of the PPAs with European law, PPAs could be:

- new State aids deemed irregular because they were not previously notified by the States before carried out;
- and not compliant with European law, because not meeting the requirements set up by the Commission.

EC Zielona Gora S.A. and BERt contest the Commission's competence to decide the irregularity of the PPA they entered into and therefore ask the first instance court to avoid the Commission's decision.

#### CONCERNING EC ZIELONA GORA S.A.:

On september 25, 2007, the European Commission ruled that the new Polish Law dated June 29, 2007 relating to the PPA termination and the compensation scheme that it introduces are compatible with the EU regulation. It also considered the existing PPA as unlawful State aids, wihtout asking for the repayment of the aids which have been given since May 2004, date Poland adhered to the European Union, considering that they were covered by the new Law.

The compensation levels having been considered as acceptable by EDF in a framework of electricity prices increase, EC Zielona Gora S.A. executed at the end of December 2007 a termination agreement of its long term agreements. As a consequence, the appeal filed by EC Zielona Gora S.A.

# Financial information on assets, the financial statements and results of the Company

....<u>)</u>

20.6

## Significant change in the company's financial or trading position

The significant events that took place between the end of the 2007 financial year and the date of the present *Document de Référence* are mentioned in note 41 to the consolidated financial statements as to events that took place before the financial statements were drawn up by the Board of

Directors on February 19, 2008, and in Section 9.13 ("Subsequent events") of this *Document de Référence* as to events that took place afterwards.

## **Additional information**

21



**21.1** General information regarding the company's share capital

\_\_\_\_

**21.2** Incorporation documents and articles of association

P. 322

P. 319

## 21.1

# General information regarding the Company's share capital

# 21.1.1 Issued share capital amount at the time of the registration of the present document

As of the date of this document, the Company's share capital breaks down as follows:

Number of issued shares:	1,822,171,090
Nominal value of the issued shares:	€0.50 per share
Legal status of the issued shares:	Common shares
Total amount of the share capital:	€911,085,545

All share capital issued by the Company has been paid up.

At the time of the registration of the present document, the Company has not issued any preferred shares.

# 21.1.2 Ownership of shares and control by the Company

SHARE REPURCHASE PROGRAM IN FORCE AS OF THE DATE OF THE REGISTRATION OF THIS DOCUMENT DE RÉFÉRENCE (PROGRAM AUTHORIZED BY THE ORDINARY SHAREHOLDERS' MEETING OF MAY 4, 2007).

The Shareholders' Meeting of May 4, 2007, in accordance with the provisions of Article L. 225-209 *et seq.* of the French Commercial Code, authorized under its sixth resolution the implementation by the Board of Directors of a share repurchase program of up to a maximum of 10% of the Company's share capital. That resolution immediately terminated the authorization to repurchase Company shares granted by the first resolution of the Ordinary and Extraordinary Shareholders' Meeting of June 9, 2006, for the fraction which was not used.

The aims of the share repurchase program are as follows:

• to grant shares in connection with the conversion of securities giving access by any immediate or future means to the share capital of the Company as well as conduct any hedging transactions with respect to EDF's (or one of its subsidiaries) obligations connected with such securities, in accordance with the conditions stipulated by market authorities and at such times that the Board of Directors or the person acting upon delegation of the Board shall determine,

- to maintain shares for future grants in exchange or as payment in the context of external growth operations,
- to ensure the liquidity of EDF's shares through an investment services provider under a liquidity agreement complying with the ethics charter recognized by the French financial market authority (AMF),
- to attribute shares to employees of the EDF Group, including within the framework of any stock option or stock grant plans for the benefit of employees on the terms provided by law and, in particular, by Articles L. 225-197-1 et seq of the French Commercial Code or Articles L. 443-1 et seq. of the Labor Code, as well as performing any hedging operations related to such operations, on the terms provided by the French financial market authority (AMF) and at such time as determined by the Board of Directors or the person acting by delegation of the Board of Directors
- to reduce the Company's share capital (under the authorization granted by the Shareholders' Meeting on May 24, 2007, in its 16th resolution),
- to implement any market practice which may be recognized in the future by law or the French financial market authority (AMF).

Purchases of the Company's shares may concern any number of shares such that:

- the number of shares that the Company purchases during the duration of the repurchase program does not exceed 10% of the shares comprising the Company's share capital as of the date of the Shareholders' Meeting of May 24, 2007, and
- the number of shares that the Company holds at any time does not exceed 10% of the shares comprising the Company's share capital.

The acquisition or transfer of these shares may be carried out, on the terms and within the limits, including as to volumes and price, provided by the laws in effect on the date of the relevant operations, by any means, including on the market or by direct sales, including through acquisition or sale of blocks, by recourse to derivative financial instruments or to bonds or securities giving access to Company shares, or by implementing optional strategies, on the terms provided by the financial market authorities and at such time as determined by the Board of Directors or the person acting by delegation of the Board of Directors.

The portion of the repurchase program which may be performed through trading in blocks is unlimited. The maximum amount of funds for carrying out this share repurchase program is €2 billion.

Under this program, the repurchase price must not exceed €90 per share. The Board of Directors may, however, adjust the aforementioned purchase price in the case of incorporating bonuses, reserves or profits, giving rise either to an increase in the shares' par value or to the creation and

## Additional information



free distribution of shares, and in the case of a stock split or grouping together of shares, or any other operation involving equity, in order to take into account the effect of these operations on the shares' value.

This authorization is granted for a maximum duration of 18 months as of the Shareholders' Meeting which took place on May 24, 2007. This authorization may be used during public tender offers, within the limits set by applicable regulations.

The number of shares purchased by the Company for the purposes of holding them or using them as payment or exchanges in connection with a merger, spin-off or capital contribution operations cannot exceed 5% of its share capital.

The Board of Directors will have all powers in order to implement the authorization, with the possibility of delegating its powers, for the purpose of:

- making any orders on the market or over-the-counter;
- allocating or reallocating the shares purchased for the various objectives pursued under the applicable legal and regulatory conditions;
- concluding any agreements in order, among other things, to keep share purchase and sale registers;
- making any declarations and carrying out any formalities with the French financial market authority (AMF) and with any other organization; and
- carrying out any other formalities and, generally speaking, doing all that is necessary and appropriate.

The Board of Directors must inform the shareholders of each of the operations performed pursuant to the present resolution.

# SUMMARY OF THE TRANSACTIONS EFFECTED BY THE COMPANY WITH RESPECT TO ITS SHARES AS PART OF THE PROGRAM AUTHORIZED BY THE ORDINARY SHAREHOLDERS MEETING OF MAY 24, 2007.

A liquidity agreement was entered into on May 24, 2006 with *Crédit Agricole Cheuvreux* for a period of one year, renewed by tacit agreement. The initial amount of €35,000,000 has been applied to the liquidity item in relation with the implementation of the liquidity agreement, as of its execution, in accordance with the Company's shares repurchase program.

Between January 1, 2007 and December 31, 2007, the Company repurchased 557,339 of its own shares on the basis of an average amount of €67.14 per share and sold 462,579 shares on the basis of an average amount of €68.14 per share. By December 31, 2007, the Company held 129,503 treasury shares, amounting to 0.0071% of its share capital. Throughout 2007 financial year, the stand-by fee paid by EDF pursuant to the liquidity agreement amounted to €195,418.

As of January 1, 2008 and until February 29, 2008, the Company repurchased 1,276,648 of its own shares on the basis of an average amount per share of €68.73 and sold 932,408 shares on the basis of an amount per share of €70.66.

In addition, as of the date of registration of this *Document de Référence*, the Company holds 874.3 units in the "Energie Multi" fund of the Company's mutual fund "EDF Actions", which correspond to 8,743 Company shares

(approximately 0.00048% of the share capital as of the date of this *Document de Référence*). These shares are due to share purchase orders which were cancelled in the offering reserved to the EDF Group's employees (as described in the prospectus which received the AMF visa number 05-743 on October 27, 2005). By the end of the five-year lock-up period, these 874.3 units will be sold, and the amount received will be paid to the French State. In addition, EDF purchased 5,000 shares (amounting to approximately 0.0003% of its share capital) in anticipation of an early shares delivery, in case of death of the plan ACT2007 beneficiaries.

# RESOLUTION RELATING TO THE AUTHORIZATION GIVEN TO THE BOARD OF DIRECTORS TO PERFORM OPERATIONS INVOLVING THE COMPANY'S SHARES, SUBMITTED TO THE ORDINARY SHAREHOLDERS MEETING OF MAY 20, 2008.

In its February 19, 2008 meeting, the Board of Directors decided to include in the Ordinary shareholders' meeting of May 20, 2008 agenda, the vote of share repurchase program, similar in certain points to the one authorized by the May 24, 2007 ordinary and extraordinary shareholders' meeting, notably for what concerns the goals of that program and the limited number of shares which can be repurchased. Nevertheless, the new share repurchase program provides that the repurchase price will not exceed €100 per share, against €90 in the current repurchase program.

#### **21.1.3** Bonds

In accordance with Article L 228-40 of the French Commercial Code, only the Board of Directors can decide or authorize the issuance of bonds, except if the general shareholders' meeting decides to exercise this power.

On the basis of Article 46 paragraph 2 of the Law of August 9, 2004, the first paragraph of Article L 228-39 of the French Commercial Code which states that "the issuance of bonds by a "société anonyme" which has not presented two balance sheets regularly approved by shareholders requires a prior audit of the Company's assets and liabilities as described by Articles L 225-8 and L 225-10 of the French Commercial Code" is not applicable to EDF for the years 2004, 2005 and 2006.

On April 18, 1996 EDF implemented a program for the issuance of debt securities under the Euro Medium Term Notes ("EMTN") program. Since then the program has been renewed every year.

An update of the program for the issuance of debt securities for a maximum amount of €11,000,000,000 was implemented on June 8, 2006, by the Group.

On December 31, 2007, the outstanding amount of the debt of EDF in the form of bonds (borrowings issued as EMTNs and other debt securities) was €8,956 million.

# **21.1.4** Other securities giving access to the share capital

At the time of the registration of the present document, besides ordinary shares, there are no other securities giving access, directly or indirectly, to the share capital of EDF.

#### 21.1.5 Authorized but un-issued capital

The table below presents a summary of the delegations granted to the Board of Directors by the ordinary and extraordinary shareholders' meeting of the Company held on May 24, 2007 to increase the share capital:

	Delegations to the Board of Directors	Maximum Nominal	<b>Duration of</b>
	by the Extraordinary Shareholders' Meeting	Amount of Capital	Delegation <sup>(1)</sup>
		Increase (in € millions)	
1.	Delegation of authority to the Board for a share capital		_
	increase with maintenance of preferential maintenance		
	of preferential subscription rights of shareholders	45	26 months
2.	Delegation of authority to the Board for a share capital		
	increase without maintenance of preferential subscription		
	rights of shareholders	45(2)	26 months
3.	Delegation of authority to the Board to increase the number		
	of shares to be issued in the event of a share capital increase		
	in the context of issuances pursuant to Items 1 and 2	15% of the initial issuance <sup>(2)</sup>	26 months
4.	Delegation of authority to the Board to increase the share capital		
	through incorporation of reserves, profits, share premiums or other		
	amounts which capitalization would be admitted	1,000	26 months
5.	Delegation of authority to the Board to increase		
	the share capital in compensation for an exchange		
	offering initiated by the Company	45 <sup>(2)</sup>	26 months
6.	Delegation of powers to the Board to increase the share capital as		
	consideration for contributions in kind made to the Company		
	(Article L 225-147 of the French Commercial Code)	10% of the share capital of the company <sup>(2)</sup>	26 months
7.	Delegation of powers to the Board to increase the share capital		
	for the benefit of participants in a savings plan	10	26 months
8.	Delegation of authority to the Board to carry-out a free grant		
	of ordinary shares of the Company	0.2% of the Company share capital <sup>(3)</sup>	12 months

<sup>(1)</sup> Beginning from the date of the ordinary and extraordinary shareholders' meeting of May 24, 2007.

# 21.1.6 Share capital of Group members, subject to conditional or unconditional agreements

Investment and divestment commitments on the shares of the subsidiaries are described in note 24.5 to the consolidated financial statements for the year ended December 31, 2007. Apart from the investment and divestment commitments and other commitments described in Chapter 6 of the present Document de Référence, EDF has not entered into any offer to sell or purchase whole or part of the share capital of the Company or one of its subsidiaries, as defined in article L. 233-1 of the French Commercial Code.

#### 21.1.7 Shareholder Agreements

At the time of the registration of the present document, and to the Company's knowledge, no shareholder agreement has been concluded that concerns the Company's securities.

## **21.1.8 Security interests in the Company's securities**

To the Company's knowledge, none of the Company's ordinary shares is the object of any security interest.

## 21.1.9 Evolution of the Company's share capital for the past three years

In order to comply with the Law of August 9, 2004 EDF has become a "société anonyme" on November 20, 2004 and its share capital was fixed at  $\in 8,129,000,000$ , divided in 1,625,800,000 shares of a  $\in 5$  nominal value each.

On August 31, 2005, the EDF general shareholders' meeting gave full authority to the Board of Directors to effect a capital reduction by the maximum amount of  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 7,316,100,000, by means of the reduction of the shares' nominal value of  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 5 to a minimum of  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 0.5. At its meeting of October 27, 2005, the Board of Directors has resolved to reduce the share capital by the amount of  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 7,316,100,000, by reducing the share nominal value by  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 4.5, from  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 5 to  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 6.5. The share capital was thus reduced to  $\[mathebox{\ensuremath{\mathfrak{e}}}$ 812,900,000.

<sup>(2)</sup> Up to the upper limit set forth in Item 1, i.e., €45 million.

<sup>(3)</sup> As of the date of the ordinary and extraordinary shareholders' meeting of May 24, 2007.

## Additional information



At its November 18, 2005 meeting, the Board of Directors, exercising the authority granted to it by the October 10, 2005 shareholders' meeting, has resolved to proceed with the Company's capital increase through the French retail public offering and the institutional placement, in the context of the initial public offering of the Group. The share capital was thus increased to €906,834,514.

On December 20, 2005 Calyon paid to EDF the price due on the exercise of 8,502,062 over-allotment options that EDF Board of Directors had decided to issue for the benefit of Calyon at its November 18, 2005 meeting. The share capital was thus increased to €911,085,545, divided into 1,822,171,090 ordinary shares.

## 21.2

## Incorporation documents and articles of association

#### 21.2.1 Company's purpose

The Company's purpose, both in France and abroad, is to:

- secure generation, transmission, distribution, supply and trading of electrical energy and secure the import and export of this energy;
- carry out the public service missions assigned by laws and regulations, especially by the French Law of June 15, 1906 regarding energy distribution, the aforementioned French Laws of April 8, 1946 and February 10, 2000 and Article L 2224-31 of the French Code for Local Authorities, as well as by the concession agreements, and in particular, the missions regarding the development and operation of the public electricity networks, the energy supply to non-eligible customers, the supply of emergency energy to producers and customers to compensate unexpected power failures and the supply of energy to eligible customers who cannot find any other supplier, while contributing to the accomplishment of the goals defined by the multi-annual generation investments program implemented by the minister responsible for the energy sector;
- more generally, develop any industrial, commercial or service activity, including research and engineering activities in the energy field, for all customer categories;
- increase the value of all tangible and intangible assets it has or uses;
- create, acquire, rent out or lease management of all property, real estate and businesses, lease, set up and operate all establishments, businesses, plants and workshops relating to any of the aforementioned purposes;
- take, acquire, operate or sell all processes and patents concerning activities which relate to any of the aforementioned purposes;
- take part, directly or indirectly, in any operation connected to one of the aforementioned purposes, by creating new companies or undertakings, by contributing, subscribing or purchasing any securities, by taking part in investments or by merging, associating or any other manner whatsoever;
- more generally, engage in any industrial, commercial, financial, property or real estate operations directly or indirectly connected, in whole or in part, to one of the aforementioned purposes, to any similar or connected purpose or even to any purpose which may favor or develop the Company's business.

#### 21.2.2 Company's fiscal year

Each Company's fiscal year lasts 12 months: it starts on January 1 and terminates on December 31 of each year.

#### 21.2.3 Management

The Company is managed by a Board of Directors consisting of 18 members in accordance with the provisions of the French Law of July 26, 1983 relating to the democratization of the public sector, in particular, Article 6 thereof, and with the provisions of the French Statutory Decree of October 30, 1935 organizing the French State's financial control of companies having requested financial support from the French State.

Within this framework, as of the date of the present document, the Board of Directors included six representatives of the French State, appointed by decree and six representatives of the employees elected in accordance with the provisions of section II of the aforementioned French Law of July 26, 1983.

The Board of Directors may include, at most, two members of the French Parliament or holders of a local electoral mandate selected for their knowledge of regional, departmental and local aspects of energy issues.

The Board must appoint a Secretary but is free to choose a person who is not a member of the Board

The Chairman and Chief Executive Officer must communicate to every member of the Board all documents and information required for the fulfillment of their task.

The duration of the mandate of members of the Board of Directors is five years. In case of a vacancy for any reason whatsoever of the seat of a member of the Board of Directors, his/her replacement will only hold office for the remaining duration of the term until the renewal of the full Board of Directors.

The general shareholders' meeting sets the amount of the directors' fees. Members of the Board of Directors who have not been elected at the general shareholders' meeting are not entitled to a financial remuneration.

Other costs paid by the members of the Board as a part of their mission will be reimbursed by the Company, provided that they present a justification.

Employees' representatives are entitled to a time credit corresponding to half of the legal working period.

Each member of the Board of Directors who has been appointed by the general shareholder's meeting must hold at least one nominative share of the Company's capital. The shareholder's meeting can also decide to dismiss him.

At the Chairman and Chief Executive Officer's request, the Board of Directors can, if it thinks that it is necessary and according to the meeting's agenda, invite Company members or even persons who are external to the Company to attend the Board's meeting without being able to vote.

The Secretary of the Works Committee or an equivalent institution attends the Board of Directors' meetings but without the right to vote.

Any person attending one of the Board of Directors' meetings is subject to the same confidentiality obligations as the member of the Board.

In accordance with the aforementioned Law of 1983, the Chairman of the Board of Directors is appointed by decree, from among the directors, following a proposal made by the Board of Directors. The duration of the Chairman's duties may not exceed that of his term of office as a director. His mandate may be renewed under the same conditions as those of his appointment. The Chairman mandate may be revoked by decree. Since the shareholders' meeting of February 14, 2006, which decided to modify EDF's by-laws, the Chairman of the Board of Directors may not be older than 68 years old; otherwise he will automatically be deemed to have resigned.

The management of the Company is assumed by the Chairman of the Board of Directors, who bears the title "Chairman and Chief Executive Officer". He must therefore comply with all the laws and regulations applicable to Chief Executive Officer.

In accordance with Article L 228-40 of the French Commercial Code, the Board of Directors may delegate the necessary authority to the Chief Executive Officer or, if he agrees, to one of his Chief Officers, in order to carry out, within one year, the issuance of bonds and settle its terms and conditions. The Board of Directors will also settle the terms and conditions under which the Chief Executive Officer or his deputies will account to the Board for the exercise of these powers.

#### 21.2.4 Rights attached to shares

Each share entitles its holder to a share of the Company's profits and assets which is proportional to the part of the Share capital that it represents.

Moreover, each share confers a voting right and the right to be represented at the general shareholder's meetings in accordance with legislative, regulatory and statutory conditions and restrictions.

On the date of the present document, EDF has issued only one kind of shares.

The ownership of a share automatically entails acceptance of the articles of association and of the decisions of the general shareholders' meeting.

Shareholders shall only bear losses up to the amount of their contributions.

The heirs, creditors, assigns and other representatives of a shareholder cannot request the affixture of seals to the assets and securities of the Company, nor may they demand the partition or sale by auction of property, nor interfere in the Company's management; in order to exercise

their rights they must refer to the Company's inventory and to the decisions of the general shareholders' meeting.

Whenever it will be necessary to hold several shares in order to be entitled to exercise a right, in the event of exchange, consolidation and allocation of shares, or due to a capital increase or decrease, a merger or any other corporate operation, the holders of isolated shares or whose number of shares is not enough cannot exercise their right unless they arrange a consolidation or the sale or the purchase of the required number of shares.

The shareholder can decide whether his shares will be in registered or in bearer form, subject to compliance with laws and regulations.

The shares can be registered under the name of an intermediary, subject to the conditions of Article L 228-1 *et seq.* of the French Commercial Code. The intermediary must state his status as an intermediary who is holding shares for someone else, according to laws and regulations.

In accordance with the present laws and regulations, the Company is entitled to claim from the central depositary, at any time and provided that it grants a financial compensation, that he reveals the name or the corporate name, the nationality, the date of birth or incorporation and the address of the holders of shares in bearer form which may, at the present time or in the future, award a voting right in its own general shareholders' meetings. The Company is also entitled to know the number of shares held by each of these shareholders and any restrictions these shares can be subject to. In light of the list provided by the abovementioned entity, the company can ask the persons mentioned on the list and who can be considered by the company as holding personal account the above-mentioned information relating to the shareholders.

If shares in registered form are concerned, giving immediate or delayed access to the share capital, the intermediary registered pursuant to article L. 228-1 mentioned above must reveal the identity of the share owners as soon as the company or its mandatory so requires within 10 days from the request, and the request can be made at any time.

#### 21.2.5 Sale and transfer of shares

Shares are freely negotiable subject to legislative and statutory provisions. They shall be subject to registration to an account and shall be moved by transfer from account to account. These conditions shall also apply to other securities of any nature issued by the Company.

Apart from the legal obligation to inform the company when certain thresholds of share capital or voting rights are held, any person who, directly or indirectly, acting alone or in concert with others, acquires ownership or control of shares representing 0.5% of the Company's share capital and/or voting rights will be required to notify the Company, by a registered letter, the number of shares it holds within five trading days of the book entry of the shares.

The intermediary registered as shareholder must make the above-mentioned declarations, independently from the obligations of shareowners.

This declaration must be renewed under the above-mentioned conditions each time a new threshold of 0.5% is reached or is crossed, whether on the upswing or in the downswing, and whatever the reason, even above the 5% threshold mentioned in article L. 233-7 of the French Commercial Code.

### Additional information



If a person does not comply with the above-mentioned provisions, the shareholder(s) concerned will be stripped of voting rights corresponding to the shares exceeding the thresholds, under the conditions provided by law.

#### 21.2.6 Shareholders' meetings

#### 21.2.6.1 MEETINGS, ADMISSION CONDITIONS, VOTING RIGHTS

Shareholders' meetings are convened by the Board of Directors or, by default, by the auditors or by any authorized person. They shall be held at the registered head office or any other place indicated in the notice. They may take place by video conference or by means of telecommunication allowing for the identification of the shareholders, the nature and conditions of which are determined by Articles 145-2 to 145-4 of the French Decree of March 23, 1967. In such cases, shareholders attending the meeting by such means are deemed to be present for the calculation of the quorum and majority in accordance with legal requirements.

Shareholders' meetings are comprised of all of the shareholders whose shares are fully paid up and have been registered to an account in their name at least five days before the date of the meeting, in accordance with the following conditions:

- holders of bearer shares or shares in their name registered to an
  account not held by the Company must, in order to be entitled to
  attend, to vote by correspondence or to be represented at shareholders' meetings, present, at the place specified in the notice of the meeting, a certificate issued by the intermediary attesting the non-availability of the shares until the date of the shareholders' meeting, at least
  five days before the date of the meeting; and
- the owners of shares in their name registered to an account held by the Company must, in order to be entitled to attend, to vote by correspondence or to be represented at shareholders' meetings, have their shares registered to their account held by the Company at least five days before the date of the shareholders' meeting.

The Board of Directors may, however, shorten or cancel these five-day time restrictions.

Access to the shareholders' meeting is open to its members upon simple production of documentation confirming their status and identity. The Board of Directors may, should it see fit, produce and distribute to shareholders personal admission cards and require these cards to be presented.

Any shareholder may be represented by his or her spouse or another shareholder at a shareholders' meeting. The owners of shares legitimately registered in the name of an intermediary in accordance with the conditions provided for in Article L. 228-1 of the French Commercial Code may be represented in accordance with the conditions provided for in such Article by a registered intermediary.

A shareholder may also vote by correspondence after having had his or her status as a shareholder attested to at least five days before the shareholders' meeting, by the depositary or by registered certificate(s). As from the date of this attestation, the shareholder will not be able to choose any other method of participation at the shareholders' meeting. The Company must receive the ballot at least three days before the meeting.

Powers of attorney, correspondence voting forms and attestations of immobilization of shares may be prepared in electronic form and duly signed in accordance with the legislative and regulatory conditions appli-

cable in France.

In its February 20, 2007 meeting, the Board of Directors decided to include in the ordinary and extraordinary shareholders' meeting of May 24, 2007 agenda the vote of a resolution in order to amend article 21 of the Company articles of association ("Shareholders' meetings") in order for it to comply with the provisions of decree n° 2006-1566 of December 11, 2006.

#### 21.2.6.2 DOUBLE VOTING RIGHTS

None.

#### 21.2.6.3 LIMITATION OF VOTING RIGHTS

None

### 21.2.7 Statutory device which would delay a takeover of the Company

According to EDF's by-laws, modifications in its share capital cannot have as a consequence the reduction of the French State's shareholding below the legal threshold of 70%. Apart from this, no other provision in the constituting or organizational documents prevents or delays a takeover of the company by a third party.

### 21.2.8 Obligations relating to changes in share capital

The share capital can be increased, decreased or redeemed under the conditions defined by the law.

#### **Material contracts**

22



Apart from the agreement described in chapter 6 of this *Document de Référence*, and those described hereinafter, EDF has not entered into any major contract except for those of its daily business within the last two years preceding this Document:

- Public service contract described in Section 6.4.3.4 "Public service in France":
- The contracts entered into with AEM Milan (now A2A) relating to the joint takeover of Edison mentioned in Section 6.3.1.3.1.3 "Joint takeover of Edison by EDF and AEM Milan (now A2A)";
- The industrial partnership agreement entered into with Exeltium and detailed in Section 6.2.1.2.2.2 ("Electricity sale prices to customers having exercised their right of eligibility");
- The cooperation agreement entered into with Enel relating to nuclear

mentioned in Section 6.2.1.1.3.5 ("Preparing for the future of the nuclear fleet") and Memorandum of Understanding relating to fossil-fixed generation means mentioned Section 6.2.1.1.5 ("Fossil-fired generation ("THF")");

- Partnership agreement entered into with Constellation Energy mentioned in Section 6.3.2.4 ("United States of America");
- Joint-venture agreement entered into with China Nuclear Power Energy Corporation mentionned Section 6.3.3.1 ("The EDF Group's activities in China").

For information relating to the contracts concluded by the Group during the 2007 financial year, see notes 11 and 39 to the consolidated financial statements for the year ended December 31, 2007.

23

## Third party information and statement by experts and declarations of any interest



None.

### Documents available to the public

24



**24.1** Consultation of legal documents

P. 327

**24.2** Person responsible

P. 327

### **24.1** Consultation of legal documents

All the legal documents relating to the Company (by-laws, reports, mail and other documents, historic financial information of EDF and its subsidiaries for the two years preceding the registration of this document) which must be made available to the public are available at no charge, during the validity of this document, at EDF head office, 22-30, avenue de Wagram, 75382 Paris Cedex 08.

Annex D of this document summarizes all the information made known to the public by the EDF Group during the last 12 months, in accordance with article 222-7 of the AMF Regulations.

### 24.2

#### Person responsible

Daniel Camus Chief Financial Officer

David Newhouse Investors Relations Director Tel: 01.40.42.32.45 Email: comfi-edf@edf.fr

### Information on holdings

**25** 



For information about the companies in which EDF holds an interest that may have a significant effect on assessing its holdings, its financial situation or its financial results, see Chapter 7 ("Organizational

structure") and Chapter 6 ("Business overview") as well as note 42 to the consolidated financial statements for the year ended December 31, 2007.

#### **GLOSSARY**



AIEA (International Atomic Energy Agency) International Atomic Energy Agency (IAEA), based in Vienna (Austria).

ANDRA (National Agency for the Management of Radioactive Waste)

The French Law of December 30, 1991 established a public industrial and commercial body, the National Agency for the Management of Nuclear Waste (*Agence Nationale pour la gestion* des *Déchets Radioactifs*, or "ANDRA"), responsible for the long-term management of radioactive waste. To this end, the Agency, which reports to the Industry, Research and Environment Ministries, brought into service the storage centers based in the Aude region of France for the long-term management of short-lived waste.

**Architect-Assembler** 

For EDF, the architect-assembler has control over:

- the conception and operation of power plants;
- the organization of development projects;
- the schedule of the completion and costs of construction;
- relations with the ASN; and
- the integration of feedback from operational experience.

EDF's role as architect-assembler ensures the control over its industrial policy with respect to the design, construction and operation of its fleet of power plants.

ASN (Nuclear Safety Authority)

The French Nuclear Safety Authority (*Autorité de Sûreté Nucléaire*, or "ASN") manages, on behalf of the French State, nuclear safety and radioprotection in France to protect workers, patients, the public and the environmental risks associated with the use of nuclear energy. It is notably in charge of the external control of nuclear facilities in France. The ASN is an independent administrative authority with more than 300 staff. The ASN is represented at the national level by the Directorate General for Nuclear Safety and Radioprotection (*Direction Générale de la Sûreté Nucléaire et de la Radioprotection, or "DGSNR"*).

**Balance Responsible Entity** 

Entities with which RTE-EDF Transport signs a contract for the financing of shortfalls between forecast and actual consumption and the production of a portfolio of users brought together by the balance responsible entity which plays a role of insurer covering the potential losses arising from the many differences between over-and under- supply.

**Balancing Mechanism** 

Created by RTE, or Electricity Transmission Network, on April 1, 2003, the balancing mechanism gives access to available power reserves as soon as an imbalance develops between supply and demand.

Becquerel (Bq)

International legal unit for measuring radioactivity. The Becquerel (Bq) is equal to one radioactive disintegration per second. This unit represents such a low level of activity that it is used in multiples: the MBq (megabecquerel or million Becquerels) and the GBq (gigabecquerel or billion Becquerels).

**Capacity Auctions** 

At the beginning of 2001, the Group agreed to auction a portion of its generation in order to allow European energy groups to compete in the French market just as EDF competes in foreign markets. This agreement, signed with the European Commission, stipulated that EDF would sell 6,000 MW of its electricity 'capacities' or 8% of the electricity generated in France.

Changes in the Group's Scope of Consolidation

The changes in the Group's scope of consolidation in any given year take into account the acquisitions, disposals and changes in the scope of consolidation within the Group.

#### Glossary



#### Cogeneration

Generation technique for combined electricity and heat production. The advantage of cogeneration is the ability to capture the heat produced by the fuel whereas in classical electricity generation this heat is lost. This process also allows the same facility to meet the heating (hot water or steam) and electricity needs of both industrial and local authority customers. This system improves the energy efficiency of the generation process and reduces fuel use by an average of 20%.

#### **Combined-Cycle Gas**

The most up-to-date technology for generating electricity in a natural gas-fired plant. A combined cycle is made up of one or several combustion turbines and a steam turbine allowing for an improved yield. The combusted syngas is routed to the combustion turbine, which generates electricity and very hot exhaust gases. The heat from the exhaust gases is retrieved by a boiler, thus producing steam. Part of the steam is then retrieved by the steam turbine to generate electricity.

#### Congestion

Situation in which an interconnection linking the national transmission networks cannot absorb all of the physical flows resulting from the international exchanges required by market operators due to a shortage of capacity in the interconnection and/or the national transmission networks involved.

#### Conversion/Fluorination

Also called "conversion", fluorination allows for the purification of uranium compounds and their transformation Into uranium hexafluoride (UF6), allowing their enrichment using current techniques.

### CRE (Energy Regulation Commission)

The Energy Regulation Commission (*Commission de Régulation de l'Energie*, or "CRE") was created on March 30, 2000. Its aim is to monitor the correct functioning of the electricity market. The CRE, an independent body, regulates the process of energy market opening. It ensures that all of the generators and eligible customers have equal access to the network. Within its jurisdiction, this body has powers of supervision and authorization along with the power to settle any disputes and, if required, impose sanctions. For a detailed description of its powers see Section 6.5.2.2, "French legislation".

#### **Distribution Network**

Downstream from the transmission network, the distribution networks (low and medium voltage) supply the final customer: residential customers, local authorities, small- and medium-sized enterprises.

#### Downstream

See "Fuel Cycle" and "Downstream Asset Portfolio".

#### **Downstream Asset Portfolio**

Total contractual commitments to sell energy to operators or final customers.

### DRIRE (Regional Divisions for Industry, Research and the Environment)

The Regional Divisions for Industry, Research and the Environment (*Directions Régionales de l'Industrie, de la Recherche et de l'Environnement*, or "DRIRE") coordinate at a regional level the inspection of facilities specifically registered for the protection of the environment. The DRIRE acts on behalf of the Ministry of the Environment and under the authority of the *préfets* of each department.

#### EAR (Earning at Risk)

Financial indicator which gives the statistical measure of the risk of maximum potential loss of a company's profit compared with forecast profit in the event of unfavorable market movements over a given time and a given confidence interval.

#### **EBITDA**

Earnings before interest, taxes, depreciation and amortization, corresponds to French "excédent brut d'exploitation".

#### **Electricity Supply**

Electricity demand can be broken down into four types of consumption:

- "basic" (or "ribbon") supply is the electricity generated and consumed throughout the year;
- "semi-basic" supply is the electricity generated and consumed over the winter period;
- "peak" supply corresponds to periods of the year when electricity generation or supply is in heavy demand;
- "lace" supply is a complement to "ribbon" supply.

#### **Electricity Value Chain**

The electricity value chain includes both deregulated activities (generation and supply) and regulated activities (transmission and distribution).

**Energy Gross Margin** 

The energy gross margin is built from accounting data in the income statement and represents the margin on energy costs, fuels and delivery coming from energy sales (i.e., electricity and gas).

**Enriched Uranium** 

Uranium whose isotope 235 content, the only fissile material, has been increased from its low natural level (0.7%) to approximately 4% for pressurized water reactor fuel.

**Enrichment** 

Procedure by which the fissile content of an element is increased. In its natural state uranium is 0.7% uranium 235 (fissile) and 99.3% uranium 238 (non fissile). To enable its efficient use in a pressurized water reactor, it is enriched in 235 uranium whose proportion is increased to around 4%.

**EPR** 

*European Pressurized Reactor.* A European reactor belonging to the latest reactor generation (called generation 3) resulting from a Franco-German cooperation, offering advanced safety, environmental and technical performance.

**FNCCR** 

National Federation of Licensors and Local Utilities (Fédération Nationale des Collectivités Concédantes et Régies, or "FNCCR").

Fuel

See "Fuel/Assembly".

Fuel/Assembly

Nuclear fuel is in the form of an assembly made up of an array of 264 fuel rods, bound together by a rigid structure made of tubes and grids. Each fuel rod consists of a water- tight zirconium tube into which uranium oxide pellets are piled, constituting the fuel. The assemblies are loaded side by side into the reactor vessel – 205 assemblies are required for a 1,500 MW reactor – to make up the core of the reactor. While in operation, the primary coolant runs through these assemblies from bottom to top, warming up in the process, and carries the resulting energy towards the steam generators.

**Fuel Cycle** 

The nuclear fuel cycle encompasses all industrial operations in France and abroad which enable the supply of the fuel to generate energy in a reactor, then to unload and process it. The cycle can be broken down into three stages:

- upstream: the processing of concentrates from uranium ore, the conversion, enrichment and production of fuel (which takes more than two years);
- the core of the cycle corresponding to the use of fuel in the reactor: receipt, loading, operation and discharging (which takes three to five years); and
- downstream: pool storage, reprocessing of burnt fuel in reactors of recoverable material, vitrification of high-level waste, then temporary storage of the waste before long-term management.

**Generic Hazard** 

In the nuclear field, an unpredictable technical incident common to a set of nuclear plants.

**Greenhouse Emissions** 

Gas retaining part of the solar radiation in the atmosphere and where the increase in its emission is due to human activities (anthropic emissions), producing an increase in the world's average temperature and probably playing a significant role in climate change. The Kyoto Protocol and the 2003/87/EC directive of October 13, 2003 address the six main greenhouse gases: carbon dioxide ( $\rm CO_2$ ), methane ( $\rm CH_4$ ), nitrogen monoxide ( $\rm N_2O$ ), fluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride ( $\rm SF_6$ ). For the period from 2005-2007, only carbon dioxide is the subject in Europe of measures to reduce emissions with the application of national plans for the allocation of greenhouse gas quotas.

Impact of Exchange Rate Variations

The impact of exchange rates entered in the income statement for a financial year, reflects the variations in average exchange rate between the euro and another operational currency in use by the subsidiaries within the Group's scope of consolidation.

Interconnection

Electricity transmission infrastructure, which allows for the exchange of energy bet- ween different countries, linking the transmission network of one country with its neighboring states.

Intermediate Storage

Intermediate stage in the process of managing nuclear waste. It involves placing waste packages in a facility to ensure, for a given period of time, their isolation from contact with man and the environment with a view to retrieve them for a further stage in the waste management process.

#### Glossary



Intermediate storage facilities are designed, built and managed by the producers of such waste (EDF, COGEMA, CEA) and are close to areas where waste is conditioned.

Interruptibility

A customer's voluntary reduction in electric power for compensation.

LDC

Local distribution companies.

LNG (Liquefied Natural Gas)

Natural gas turned into liquid form by reducing its temperature to –162C allowing for a reduction by 600 in its volume.

Metering

System allowing for the measurement, at a given point of the network connection, of the electricity volumes being transmitted or distributed (power, frequency, active and reactive energy).

Midstream

All assets of the gas business, allowing for its availability, transport and management. These might be infrastructure (gas pipelines, storage facilities, GNL terminals, etc.) or contractual (rights relating to pre-determined capacity, procurement contracts, etc.). The midstream segment includes the trading and negotiating activities.

MOX

"Mixed Oxides". Nuclear fuel based on a mixture of uranium oxides (natural or depleted) and plutonium.

MW/MWh

The MWh is the energy unit generated by a facility and is equal to the facilities' power, expressed in MW, multiplied by the duration of operations in hours.

1 MW = 1,000 kilowatts = 1 million W

1 MWh = 1 MW generated in one hour = 1 Megawatthour

1 GW = 1,000 MW = 1 billion W

1 TW = 1,000 GW

NAP

(National Allocation Plan)

The National Allocation Plan (*Plan National d'Allocation des Quotas*, or "PNAQ") is part of the future European market arrangements for emission allowances aimed at reducing green house emissions produced by industries in the European Union. The NAP aims to cap  $CO_2$  emissions from industrial sites and energy generation plants responsible for the greatest part of pollution for the period 2005-2007.

Non-interconnected Zones

Zones in France which are not connected to metropolitan France (Corsica and overseas departments).

**Nuclear Generating Unit** 

Electricity generation unit, composed of a nuclear boiler and a turbogenerator set. A nuclear plant unit is essentially characterized by the type of reactor and the power of the turbogenerator set. Most EDF nuclear power plants are composed of two or four units, and less frequently, six.

**Power Plant Availability** 

Fraction of the availability power on maximum theoretical power in taking into account only the technical unavabilities. The availability rate is defined as the ratio between annual real or potential generation capacity with the maximum theoretical generation capacity being = installed capacity X 8,760 hours. The availability rate, which does not factor in technical losses, i.e., planned interruptions, unforeseen outages and test periods, characterizes the technical performance of a plant. For EDF's nuclear facilities in France, the maximum theoretical generation capacity is of 553 TWh (63.1 GW X 8,760 h).

Plutonium (Pu)

Element with the atomic number of 94 (number of neutrons) of which no isotope (elements whose atoms possess the same number of electrons and protons – thus the same chemical properties – but a different number of neutrons) exists in nature. Plutonium 239, a fissile isotope, is produced in nuclear reactors from uranium 238.

**Remote Metering** 

Remote metering of the quantity of electrical energy injected into or drawn from the network.

**Renewable Energies** 

Energies whose use in generation does not involve the destruction of the initial resource. They are essentially derived from the elements, earth, water, air, fire and the sun. They include hydro, wind, solar and geothermal (energy derived from the heat below the earth's magma) energies as well as tidal and marine wave power and bio-mass (energy derived from living matter, particularly wood and organic waste). Energy resulting from household or industrial waste incineration is often included.

Reprocessing

Reactor burnt fuel reprocessing aimed at separating materials that can be recycled (uranium and plutonium) from final waste.

RPD

Public distribution network (Réseaux Publics de Distribution, or "RPD").

**RPT** 

Public transmission network (Réseaux Publics de Transport, or "RPT").

Series

In the nuclear field, a series of plants means a set of nuclear plants with identical generation capacity. EDF's PWR reactor exists in three series: the 900 MW series (34 units of approximately 900 MW each), the 1,300 MW series (20 units) and the 1,500 MW series (four units).

Storage

Storage consists in placing packages of radioactive waste in a facility, ensuring their long-term management, i.e., under safe conditions allowing for long-term risk control.

**Storage Center** 

Low- or medium-level short-lived waste, coming from nuclear plants, from The Hague or Centraco facilities, are sent to ANDRA's Soulaines storage center in the Aube region, which has been operational since 1992. This center, with a capacity of 1,000,000 cubic meters has already received 150,000 cubic meters of waste and has enough capacity for approximately another 60 years.

Very low-level short-lived waste is sent to the ANDRA's Morvilliers storage center (also in the Aube region). This center, brought into service in October 2003, has received 20,000 cubic meters of waste to date and has a further lifespan of approximately 30 years.

Therms (th)

One therm is equivalent to 1,163 kWh or 4,186.106 joules.

**Transmission Network** 

Network which allows high and very high voltage electricity transmission from generation sites to distribution networks or industrial sites which have direct access. It includes the national grid, and interconnections (400,000 volts and 225,000 volts) and the regional dispatch networks (225,000 volts, 150,000 volts, 90,000 volts and 63,000 volts).

Tritium (H3)

Hydrogen isotope, which emits beta rays, present in pressurised water reactor effluents.

Ultracentrifugation

This process involves very high speed spinning in a vacuum of a cylinder containing uranium hexafluoride (UF<sup>6</sup>). Through the effect of the centrifugal force, the heavier molecules (<sup>238</sup>U) aggregate at the periphery while the lighter ones (<sup>235</sup>U) move towards the center, creating an isotopic separation effect.

UO(2)

Natural uranium, fluorinated and then enriched. Uranium oxide, a particularly stable chemical form of uranium used as fissile material in fuel assemblies of pressurized water reactors.

Upstream

See "Fuel Cycle" and "Upstream Asset Portfolio".

**Upstream Asset Portfolio** 

All assets guaranteeing the availability of electrical energy. These may be actual physical assets (such as power plants) or their contractual equivalent: long-term contracts, shareholdings, contracts giving the right to a proportional share of generated energy.

Uranium (U)

In its natural state, uranium is a mix containing three main isotopes (elements whose atoms have the same number of electrons and protons, thus the same chemical properties, but a different number of neutrons):

- uranium 238, 99.3% fertile.
- uranium 235, 0.7% fissile.
- uranium 234.

Uranium 235 is the only natural fissile isotope, a quality which justifies its use as an energy source

**URE (Re-enriched uranium)** 

To be used in a reactor, reprocessed uranium (*Uranium de Retraitement*, or "URT"), even if containing more fissile uranium than in its natural state, must be further enriched. It is therefore called re-enriched uranium (*Uranium Ré-enrichi*, or "URE").

**URT (Reprocessed uranium)** 

Reprocessed uranium (*Uranium de Retraitement*, or "URT"), uranium derived from burnt fuel reprocessing, differs from natural uranium as it contains slightly more uranium 235 and more uranium isotopes. It is recyclable and URT fuel assembly refueling is commonly used in reactors.

#### Glossary



VAR (Value at Risk)

Varification

Waste

Financial indicator giving the statistical measure of potential maximum risk of loss of economic value (market value or mark to market) to a portfolio of cash flows in the event of unfavorable market movements over a certain period of time and a given confidence interval.

Process of immobilization in a glass structure of concentrated solutions of high-level waste through a mix at high temperature with glass paste.

The nuclear generation of 1 MWh of electricity (equivalent to the monthly consumption of two households) produces around 11 g of total waste across all categories.

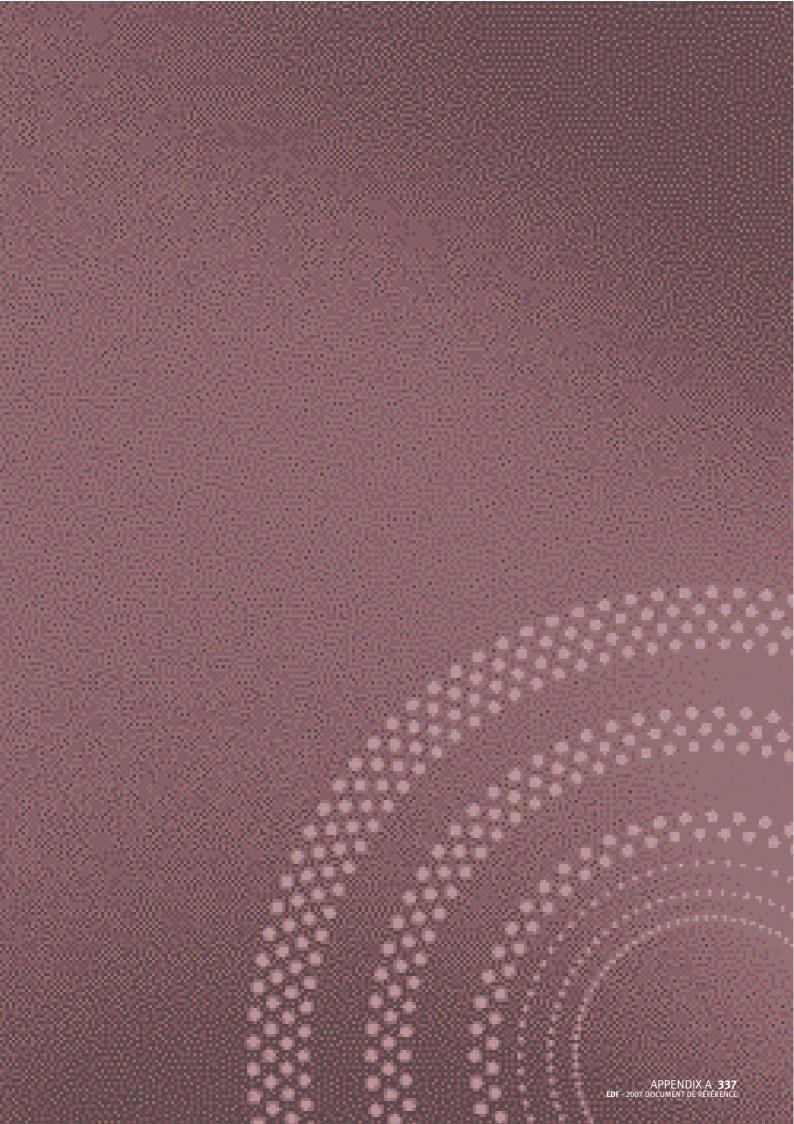
Short-lived waste represents more than 90% of the total, but contains only 0.1% of the radioactivity of waste. According to their level of radioactivity this sort of waste is subdivided into two different categories: very low-level waste and low-level waste.

Long-lived, medium- and high-level waste is only produced in smaller quantities – less than 10% of the total – but it contains most of the radioactivity (99.9%).

[THIS PAGE IS INTENTIONALLY LEFT BLANK]

# APPENDIX A EDF GROUP

2007 Report of the Chairman of the Board of Directors of EDF on corporate governance and internal controls



### **CONTENTS**

1. CORPORATE GOVERNANCE		2.2 RISK MANAGEMENT AND CONTROL POLICY	P. 348	
1.1 PREPARATION AND ORGANIZATION		2.3 GROUP CONTROL ACTIVITIES	P. 348	
OF BOARD OF DIRECTORS' MEETINGS	P. 340	2.3.1 Internal control procedures relating to the implementation		
1.1.1 Presentation and powers of the Board of Directors	P. 340	and optimization of operations	P. 348	
1.1.2 Appointment and powers of the Chairman of the Board of Directors and the Chief Officers	P. 340	2.3.2 Control procedures relating to the reliability of financial information	P. 350	
1.1.3 Evaluation of the functioning of the Board of Directors	P. 341	2.3.3 Control procedures relating to compliance with laws and regulations	P. 351	
1.2 MISSIONS AND FUNCTIONING OF THE BOARD OF DIRECTORS' COMMITTEES	P. 342	2.3.4 The control procedures of the application of TOP 4 instructions and orientations	P. 352	
1.2.1 Audit Committee	P. 342	2.4 COMMUNICATION AND INFORMATION DISSEMINATION		
1.2.2 Committee for Monitoring Nuclear Commitments	P. 342		P. 352	
1.2.3 Strategy Committee	P. 342			
1.2.4 Ethics Committee	P. 342	2.5 ACTIVITIES RELATING TO THE CONTROL OF GROUP INTERNAL CONTROL	P. 352	
1.2.5 Appointments and Remuneration Committee	P. 342	GROUP INTERNAL CONTROL	P. 352	
1.3 INFORMATION AND TRAINING FOR DIRECTORS	P. 343	3. THE DYNAMICS OF CHANGE	P. 354	
2. EDF GROUP INTERNAL CONTROL				

2.1 CONTROL ENVIRONMENT	
2.1.1 Internal control policy	P. 344
2.1.2 Ethics Policy and Environmental Quality	P. 344
2.1.3 Delegations of power and technical authorizations	
2.1.4 The Human Resource management policy (HR)	
2.1.5 Organization and Management of Information Systems (IS)	
2.1.6 Internal Control functional players	
2.1.7 External controls	P. 348

### --> INTRODUCTION

In application of article L 225-37 of the Code of Commerce, this report covers the conditions of governance (preparation and organization of Board of Directors' meetings, missions and functioning of the Board of Directors' committees – §1) of EDF, as well as the internal control procedures implemented within the EDF Group (§2). For the purposes of this report "the EDF Group" comprises:

- EDF;
- its subsidiaries in the regulated sector: RTE, and ERDF (the latter responsible for managing the electricity distribution network since January 1, 2008, backdated to January 1, 2007 for the purposes of the financial statements) for which the legal and regulatory framework (French law of August 9, 2004, amended by notably the French law of December 7, 2006) provides for a specific management independence limiting the control of their activities: "the regulated subsidiaries";
- its other subsidiaries, direct or indirect, that are majority controlled, in France or internationally: "the controlled subsidiaries";
- its affiliates which are jointly controlled on a financial level, without exclusive operating control (EnBW and Edison, Dalkia International, etc.): "the jointly-controlled subsidiaries";
- affiliates in which the Group has direct or indirect minority holdings: "the Shareholdings".

N.B.: The consolidation scope for the Group's consolidated financial statements is detailed in the notes to the consolidated financial statements

The practice and terms for exercising control may differ depending on the specific area of activity or the types of entity outlined above, and will be specified as necessary within this report.

With respect to the section describing internal control (§2), the structure of this report is based on the COSO<sup>71</sup> reference system and its contents are in line with the internal control recommendations from the French financial markets authority (Autorité des Marchés Financiers – AMF<sup>72</sup>). The description of the organization of internal control thus comprises five chapters which describe the elements relating to the control environment (§2.1), the risk management and control policy (§2.2), the communication and information dissemination (§2.4), and the activities relating to the control of group internal control (§2.5) and group control activities (§2.3), divided into four separate sections which correspond to the four internal control objectives specified in the French financial markets authority reference framework:

- internal control procedures relating to the implementation and optimization of operations (§2.3.1);
- internal control procedures relating to the reliability of financial information (§2.3.2);
- internal control procedures relating to compliance with laws and regulations (§2.3.3);
- internal control procedures relating to the implementation of instructions and orientations given by the Group's executive management (§2.3.4).

The last section provides information relating to the dynamics of change (§3).

This report has been produced by a working group coordinated by the Corporate Audit Division, with contributions from experts in Legal Affairs, Corporate Risk Management, Corporate Finance, Finance & Treasury and Accounting, and from the offices of the Corporate Secretary to the Board of Directors and the Chairman and CEO's office. Contributions were also sought from the Ethics and Compliance teams, the Information Systems Division, the Human Resources Division, the Delegation of Board Directors and Companies, the Sustainable Development Division and the Investor Relations Division.

COmmittee of Sponsoring Organizations of the Treadway Commission.
 Published January 22, 2007.

### --> 1.CORPORATE GOVERNANCE

### 1.1 PREPARATION AND ORGANIZATION OF BOARD OF DIRECTORS' MEETINGS

### 1.1.1 PRESENTATION AND POWERS OF THE BOARD OF DIRECTORS

As of the Shareholders' Meeting of February 14, 2006, pursuant to the law relating to the democratization of the public sector of July 26, 1983 and the provisions of the amended decree-law of October 30, 1935, the French State holding less than 90% of EDF's share capital, the Board of Directors comprises 18 members, of which one third are employee representatives, and two thirds are appointed by the Shareholders' Meeting having been proposed by the Board of Directors, subject to the State representatives appointed by decree. The French State having appointed six representatives by decree, the Shareholders' Meeting of February 14, 2006 thus appointed six directors: Pierre Gadonneix, Frank Dangeard, Daniel Foundoulis, Claude Moreau, Henri Proglio and Louis Schweitzer.

The list of mandates exercised by the corporate officers figures in section 1.20.7.1 of the EDF management report.

In addition, the following attend Board Meetings without the right to vote: the Head of the French State Economic and Financial Control Commission<sup>73</sup> and the Secretary of the Corporate Works Council.

The Board of Directors determines the orientations of the company's activities and oversees their implementation. It deliberates on all the strategic, economic, financial or technological orientations concerning the Group as well as matters expressly entrusted to it by law or which it has reserved for itself.

Pursuant to the new internal regulation adopted on January 23, 2007, the involvement of the Board of Directors is notably required on the following matters:

- organic or external growth operations or disposals which represent financial exposure for the company in excess of €200 million. This threshold is reduced to €50 million for acquisitions which are not in line with the Group's strategic objectives;
- real estate transactions exceeding €200 million;
- financial transactions, subject each year to the Board's exceptional deliberation. Thus, in 2007, the Board set the following thresholds: long-term loans of more than €2.5 billion and sureties, endorsements or guarantees exceeding €500 million. Additionally, the Chairman advises the Board of sureties, endorsements or guarantees whose unit value is above €100 million, agreed in the name of the company or by a business controlled by the company;

- contracts or total contracts resulting from the same consultation (excluding nuclear fuel purchases) involving sums, including as necessary subsequent endorsements, equal to or exceeding  $\in$ 100 million; long-term contracts for the purchase or sale of energy, CO<sub>2</sub> emission credits and quotas, by the company or by an exclusively controlled subsidiary, for annual volumes or amounts in excess of:
- 10 TWh for electricity;
- 20 TWh for gas (long-term contracts for the purchase or sale of gas above 5TWh and below 20 TWh are also subject to detailed reporting to the Board of Directors' meeting following their signature);
- €250 million for coal and carbon dioxide.

In 2007, the Board of Directors thus examined, in addition to numerous matters concerning the Group's normal activities, the year's major events such as:

- the creation of the distribution subsidiary, a legal obligation pursuant to the French law of August 9, 2004 amended by the law of December 7, 2006, transposing the European directive 2003/54 CE requiring the legal separation of the distribution activities. The new subsidiary, called Electricité Réseau Distribution France (ERDF) has been operational since January 1, 2008;
- the order for the nuclear steam supply system for the EPR reactor under construction at the Flamanville site;
- the strategic orientations for international nuclear development;
- the partnership with Constellation Energy Group in nuclear generation in the United States. This partnership involves the joint development, realization, ownership and operation of EPR-type nuclear plants in the United States;
- the disposal of the Mexican generation assets;
- the ongoing strengthening and renewal of the fossil-fired generation fleet in France;
- the updated Group strategic reference framework.

### 1.1.2 APPOINTMENT AND POWERS OF THE CHAIRMAN OF THE BOARD OF DIRECTORS AND THE CHIEF OFFICERS

The Chairman of the Board of Directors assumes the function of the Chief Executive Officer and is appointed by decree on proposal by the Board of Directors.

Following the Shareholders' Meeting of February 14, 2006, the Board of Directors proposed to the French Government the appointment of Pierre Gadonneix for the office of Chairman and Chief Executive Officer. This appointment was ratified by decree on February 15, 2006.

The Chairman and Chief Executive Officer has full powers to commit the company, subject to those attributed to the Board of Directors (see §1.1.1).

<sup>&</sup>lt;sup>73</sup> Pursuant to the decree of May 26, 1955, this Commission exercises French State economic and financial control. It may exercise control procedures with a wide remit.

Following recommendation by the Chairman and Chief Executive Officer and the majority of members present or represented, the Board of Directors may appoint up to five Chief Officers. Their powers and the duration of their terms of office are conferred on them by the Board of Directors in agreement with the Chairman and Chief Executive Officer. At the end of 2007, the Chief Officers were:

- Daniel Camus, Chief Financial Officer;
- Yann Laroche, Chief HR and Communications Officer;
- Jean-Louis Mathias, Chief Operating Officer, Integration and deregulated Operations in France.

### 1.1.3 EVALUATION OF THE FUNCTIONING OF THE BOARD OF DIRECTORS

The Board of Directors met 11 times during 2007 and 20 committee meetings were held to prepare for these meetings (see §1.2).

The attendance rate for directors at Board meetings has been relatively stable since 2003 (averaging 84.32%), with a slight increase in 2007 (81.82%) on the 2006 level for temporary reasons. Consistent with the guidelines on high standards of corporate governance (for example, the Viénot and Bouton reports or the AFEP-MEDEF report of October 2003) which recommend that the functioning of the Board of Directors be evaluated, the Board's internal regulation states that the Ethics Committee "should undertake an annual evaluation of the functioning of the Board of Directors and report back on areas requiring further consideration".

Furthermore, in keeping with the recommendations in the Bouton report, EDF decided to entrust this evaluation to an external company every three years. Following a consultation process, the Ethics Committee meeting of October 17, 2007, thus appointed an external company to evaluate the functioning of the Board during 2007. Board directors will notably be asked to comment on the organization and functioning of the Board, its areas of responsibility and working methods, and the organization and functioning of the committees.

The results will be reviewed by the Ethics Committee and presented to the Board of Directors at the end of the 2008 first quarter.

### 1.2 MISSIONS AND FUNCTIONING OF THE BOARD OF DIRECTORS' COMMITTEES

In order to conduct its duties, the Board of Directors is supported by a number of committees, tasked with reviewing and preparing certain matters prior to their submission to the full Board. At the end of 2007, these committees were: the Audit Committee, the Committee for Monitoring Nuclear Commitments (*Comité de suivi des engagements nucléaires* – CSEN), the Strategy Committee, the Ethics Committee and the Appointments and Remuneration Committee.

#### 1.2.1 AUDIT COMMITTEE

The Audit Committee, comprised of five members, is chaired by Mr. Dangeard, a Board director appointed by the Shareholders' Meeting and a respected figure from outside the EDF Group. The other members are Messrs. Bézard and d'Escatha, directors representing the French State, Messrs. Chorin and Villota, directors elected by the employees. The committee reviews reports from the Statutory Auditors, the executive management, the Finance Division, the Senior Vice President, Corporate Audit and the Senior Vice President, Corporate Risk Management. Prior to their submission to the Board, the committee reviews and comments on the company's financial situation, the Medium Term Plan and the budget, and the draft financial statements established by the Finance Division (EDF parent company and consolidated financial statements). Every half year this committee also reviews the Group's consolidated risk mapping, its risk control procedures, the audit program and the main findings and corrective measures implemented following the audits of the previous half-year period.

During 2007, the Audit Committee reviewed the financial and legal issues relating to the distribution subsidiary as well as matters such as insurance or the centralization of the EDF Group's long-term financing.

The average attendance rate was 96% for the Audit Committee for the five meetings held during 2007, of which one was an ad hoc meeting convened during the absence of the Committee's Chairman.

#### 1.2.2 COMMITTEE FOR MONITORING NUCLEAR COMMITMENTS

**The Committee for monitoring nuclear commitments** is comprised of six Board directors, including the five members of the Audit Committee and a director with recognized expertise in the nuclear field. It is chaired by Mr. Bézard, a director representing the French State. Its other members are Mr. Dangeard, a director appointed by the Shareholders' Meeting and a respected figure from outside the EDF Group, Messrs. Abadie and d'Escatha, directors representing the French State and Messrs. Chorin and Villota, directors elected by the employees.

The Committee's role is to monitor the development of nuclear provisions, to comment on governance issues relating to dedicated assets, on the rules for matching assets and liabilities and on the strategic allocation, and to verify that management of the dedicated assets constituted by EDF complies with the adopted rules. It makes the comments and recommendations it considers necessary to the Board of Directors. This Committee met three times in 2007, with an average attendance rate of 88.9%

#### 1.2.3 STRATEGY COMMITTEE

The Strategy Committee, comprised of seven members, is chaired by Mr. Proglio, a director appointed by the Shareholders' Meeting and a respected figure from outside the EDF Group. The other members are Messrs. Abadie, Bézard, and Errera, directors representing the French State, Mrs. Daguerre, Messrs. Grillat and Pesteil, directors elected by employees. The Committee comments to the Board of Directors on the company's major strategic orientations. It thus notably reviewed, in 2007, the upstream and downstream strategies in the nuclear fuel cycle, the trend in the supply-demand balance in France over the 2007-2020 period, the international development of nuclear, as well as the updating of the Group's strategic reference framework. The Strategy Committee met four times in 2007, including one ad hoc meeting in the absence of a quorum, with an average attendance rate of 64.3%.

#### 1.2.4 ETHICS COMMITTEE

The Ethics Committee, comprised of six members, is chaired by Mr. Aurengo, a Board director and a respected figure from outside the EDF Group representing the French State. The other members are Messrs. Foundoulis and Moreau, directors appointed by the Shareholders' Meeting, Messrs. Chorin, Pesteil and Rignac, directors elected by the employees. The Committee ensures that ethical considerations are taken into account in the work of the Board of Directors and in the management of the company. It reviews the annual report excluding the financial statements (activity and sustainable development report), the activity reports from the Heads of Ethics and Compliance, as well as the reports from the Mediator and the Senior Vice President, Nuclear Safety and Radioprotection.

Furthermore, the Ethics Committee conducts an annual evaluation of the functioning of the Board of Directors and the application of its internal regulation, and suggests areas for further consideration.

The attendance rate for the Ethics Committee averaged 93.3% in 2007 for five meetings. This committee notably worked on updating the internal regulation approved by the Board of Directors on January 23, 2007, continued its review of the policy on partnership with subcontractors in nuclear operations and reviewed the management of nuclear waste. It also studied the implementation of the distributor's code of conduct, the communications policy as well as EDF's new ethical reference framework.

#### 1.2.5 APPOINTMENTS AND REMUNERATION COMMITTEE

The Appointments and Remuneration Committee comprised of three members, is chaired by Mr. Schweitzer, a director appointed by the Shareholders' Meeting and a respected figure from outside the EDF Group. The two other members are Messrs. Dangeard, a director appointed by the Shareholders' Meeting and also a respected figure from outside the EDF Group and Mr. Bézard, director representing the French State. The Committee transmits proposals to the Board of Directors regarding the appointment of directors by the Shareholders' Meeting, comments on the compensation of the Chairman and Chief Executive Officer to the Minister in charge, and reviews the remuneration of the Chief Officers.

It comments to the Board of Directors on the compensation terms of the top executives (fixed and variable portion, calculation method and indexation), as well as on the amount and conditions of Board directors' fees. It ensures the existence of succession charts for Executive Committee positions (see § 2.1.6.1).

Information relating to the remuneration of corporate officers can be found in section 1.20.7.2 of the EDF management report.

In 2007, this committee met three times with an attendance rate of 100%.

### 1.3 INFORMATION AND TRAINING FOR DIRECTORS

The Chairman and Chief Executive Officer regularly brings to the attention of Board members the main facts and significant events arising in the company since the previous Board meeting.

The Corporate Secretary to the Board of Directors also communicates information to Board directors, which they may supplement by meeting with the Group's main directors on matters arising on the Board's agenda.

In addition, the Corporate Secretary to the Board of Directors organizes information meetings on complex matters or those of major strategic importance or on issues requested by directors. Thus, matters addressed in 2007 included upstream-downstream optimization and trading during a meeting with the EDF and EDF Trading Paris teams, and EDF's commitment within the framework of the French law of June 28, 2006 relating to the sustainable management of radioactive matter and waste. Members of the Ethics Committee also visited the Penly nuclear plant to support their work on the subcontracting policy in nuclear.

One Board of Directors' meeting was also held in London at EDF Energy's premises, thus enabling the directors to benefit from a presentation of the main operating and strategic challenges faced by this EDF subsidiary.

### --> 2.EDF GROUP INTERNAL CONTROL

The aim of this document is not an exhaustive presentation of all the control methods existing within the Group; rather it focuses on the control procedures concerning activities or risks deemed to be significant, as well as on the main long-term procedures in effect in 2007, with a focus on key initiatives developed during that year.

#### 2.1 CONTROL ENVIRONMENT

#### 2.1.1 INTERNAL CONTROL POLICY

A new Internal Audit and Control Policy, signed by the Chairman on March 7, 2006, was implemented across the companies in the Group during 2007, having been adapted according to structures. The main levers implemented within the framework of this policy are outlined below (see §2.1.6.4 and §2.5).

With regard to the main jointly-controlled principal affiliates outside France (namely EnBW and Edison), a synthesis was submitted to the Executive Committee (see §2.1.6.1) in March 2007, covering the internal control legislation in force locally, as well as the related procedures implemented within these companies. A decision taken by the Chairman and Chief Executive Officer of EDF, taken in coordination with the directors of these companies, requires that they prepare to comply with the requirements of European directives 2006/43 and 2006/46 applicable in 2008, as well as communicate each year the information relating to the description of the internal control procedures implemented within these companies. This information was communicated via the governance bodies of the companies involved.

The same principles are applied with regard to RTE and ERDF.

Concerning the rest of the Group, this new policy establishes the reference framework in matters of internal control and internal audit which is applicable within EDF Group companies. It aims to make management more responsible for its own internal control, in line with its delegation of management authority and with the main risks which have been identified. Several levels of control have been defined:

- self-regulation and reporting-line control exercised at the level of the
- the first level of internal control exercised within the structure of the management entity responsible for the activities (at unit or controlled subsidiary level reporting to a branch or division of the parent company);
- the second level of internal control exercised within the structure of the regrouped entity (branch, division or controlled subsidiary reporting directly to the Group's corporate management);
- overall control ensured by the Corporate Audit Division: coordination of internal control, control of internal control procedures of the entities reporting to the Executive Committee.

Each of these levels of control is established in line with the corresponding level of delegation of management authority and with the procedures for analyzing major risks, each level being responsible for controlling its own activities and for verifying the control procedures for the activities it has delegated. Anomalies detected by one management level, together with the procedures to ensure they are rectified, are reported to the level above.

Each Head of a regrouped operating or support function entity has appointed an "Internal Control Coordinator" and the coordination of this network is ensured by the Corporate Audit Division (professional standards of those involved, regular meetings, establishment of control and self-diagnostic reference frameworks, background documents shared on the intranet, etc.).

An internal control reference guide has been established and is proposed to each entity to help it implement its own internal control procedures. This guide, based on the COSO chapters, characterizes the risk areas concerned, identifies the main aims of internal control to explore and proposes best practice to be implemented. It will be updated annually in the light of shared experience.

Each of the 34 regrouped operating entities produced an annual report on internal control at the end of 2007 outlining, notably, its internal control procedures, a self-appraisal of these procedures, the commitment of the executive as to his or her aims and an account of the measures envisaged to achieve these aims. This process will be conducted annually. Going forward, each year, a third of the entities concerned will have their internal control procedures and self-appraisals audited by the Group's Corporate Audit Division.

In 2007, the functional entities established internal control objectives relating to the application of major policies in their area of responsibility. These objectives were included in the internal control reference guide, approved by the TOP 4 in October 2007 (see §2.1.6.1) and will be integrated by the operating entities in their own internal control procedures.

Additionally, a number of specific measures were introduced and implemented in 2007 to comply with the recommendations in the French financial markets authority (Autorité des Marchés Financiers – AMF) reference framework in the financial and legal areas, and in the monitoring of instructions and orientations given by corporate management; these measures are outlined in detail in chapter 2.3 (control activities).

#### 2.1.2 ETHICS POLICY AND ENVIRONMENTAL QUALITY

#### 2.1.2.1 Ethics Policy

The ethics policy was relaunched in 2007 in a decision taken by the Chairman and Chief Executive Officer on March 15.

A new ethical reference framework was established for EDF bringing together, within a single document, the Group's five corporate values (respect for individuals, environmental responsibility, striving for excellence, a commitment to the community and the necessity of integrity) and their development in the form of principles governing collective action and individual conduct.

The definition of the corporate values and the content of the ethical commitments have been updated and adjusted in line with changes in the company's business environment. The document was circulated within EDF during the 2007 fourth quarter and individual copies will be given to each employee by their line managers. The existing ethics

procedures have been bolstered by the appointment of an ethics representative in each entity, responsible for helping managers promote the corporate values and ensure their respect.

The corporate values serve as a reference framework for the ethical procedures in the subsidiaries and affiliates, for codes of conduct developed in the businesses and certain areas, as well as for fundamental processes such as recruitment (recruitment reference framework), training (employee awareness), relations with suppliers and subcontractors (supplier charter, social agreement on subcontracting) and individual and collective performance reviews.

In 2007, the main non-French subsidiaries and affiliates, whether controlled or not, such as EDF Energy, EnBW and Edison continued to adopt their own ethics policies in line with that of EDF as did the subsidiaries and affiliates in Asia (NTPC in Laos) and Central Europe (Hungary, Poland).

The ethical alert procedure, established since 2004 within the EDF scope, recognizes every employee's right, and that of every external partner, to question the company by consulting the Ethics Advisor for every breach of the ethical values. The 43 alerts received in 2007 covered, notably, the respect of the individual (21) and integrity (5) and justified individual corrective measures which may involve disciplinary procedures.

#### 2.1.2.2 Environmental Quality Process

The EDF Group has had ISO 14001 certification since April 9, 2002. The certified "Group" scope attached to the certificate comprises the EDF entities, its French subsidiaries and affiliates, including the regulated subsidiaries and some non-French subsidiaries and affiliates, including EDF Energy. The EnBW and Edison affiliates are also ISO 14001 certified (outside the Group certification scope). The certification was renewed for the first time in 2005 and a second renewal will be sought in 2008. The EDF Group Environmental Management System is organized in such a way as to meet the ten commitments formulated by the Chairman in the environmental policy signed in June 2005.

The processes implemented within the framework of this certification contribute to strengthening control over the EDF Group's environmental risks.

### 2.1.3 DELEGATIONS OF POWER AND TECHNICAL AUTHORIZATIONS

EDF's Board of Directors has granted the Chairman and Chief Executive Officer and the Chief Officers delegations of power some of which they, in turn, delegate to their immediate associates. Such delegation of power provides the basis for further delegation to the main operating executives. Since June 2003, the delegations of power have enabled increased control over procurement contracts, with only the Head of Purchasing able to sign off on purchasing contracts subject to the powers of the Board of Directors in this matter (see §1.1.1).

The powers of the "nuclear energy operator" have been delegated to the Senior Executive Vice President, Generation, who, in turn, delegates to the Senior Vice Presidents in charge of Nuclear Operations and Nuclear Engineering. Each facility manager, subject to prior evaluation of the appropriate skills, issues the technical authorizations allowing individuals to work in the facilities (power plants, electricity transmission lines, etc.) These requirements apply to all workers, be they employees of EDF or of other external providers.

During 2007, the Legal Affairs Division formulated a number of recommendations regarding the existing delegations; the signature process relating to these new delegations was thus initiated in 2007.

#### 2.1.4 THE HUMAN RESOURCE MANAGEMENT POLICY (HR)

In order to ensure the success of its industrial project within the current context of fully open electricity and gas markets, and the relaunch of investment, the Group continued to bolster and renew its skills pool; recruitment, vocational training and mobility hence remain Human Resource priorities. Other key HR objectives are the modernization of employee benefits, the reform of the company's pension scheme, offering attractive remuneration terms to all employees and improving the working conditions of employees and subcontractors.

Furthermore, in 2007, ongoing employee dialogue was sustained in France, and at European level with the European Works Council and, globally, with the Committee for Dialogue on Corporate Social Responsibility.

The principle measures pursued by HR in 2007 were as follows:

- an EDF commitment to diversity, through the signature of the 2nd agreement on professional gender equality involving, for example, the promotion of apprenticeship career paths for young people at all levels of qualification and in favor of young, disabled people;
- a strengthening of EDF's ethical policy, with the introduction of a toll-free "life in the workplace" telephone number for employees. An observatory on the quality of life in the workplace started work in 2007 with an audit of the working conditions within EDF, as well as on the capitalization of practice and experience in this area;
- the implementation of a new recruitment policy aimed at incorporating young talented people into the workplace to meet the new needs produced by the Group's development and to reflect the diversity of the company and its customers and to bring scarce or new high-level skills;
- the reform of the special pension scheme, launched by the French government, which led to a phase of significant collective bargaining at the level of the electricity and gas industry workers branch, particularly with regard to the measures relating to the development of compensation;
- the implementation of Employee Representative Bodies, in line with legal requirements;
- the adoption of a bonus share issue, linked to performance over the 2006-2008 period, to be offered to all EDF employees and those within certain Group companies.

Additionally, the deployment by the HR and Communications divisions of the Group's Internal Control policy continued in 2007 with the review of the half-year processes. This enabled a situation report to be conducted on the deployment of the HR and Communications policies within the branches.

### 2.1.5 ORGANIZATION AND MANAGEMENT OF INFORMATION SYSTEMS (IS)

There were few significant organizational changes in 2007. The project management for information systems is fulfilled by each of the company's branches and divisions for the scope within their remit. Project implementation responsibilities are divided between these branches and divisions and the IT and Telecommunications Division which plays a role as cross-functional operator for EDF and the regulated subsidiaries.

Overall coherence is managed by the Group Information Systems Division which coordinates the IS line through common policies, the governance of IS being ensured at two levels in the organization:

- strategic decisions and arbitrages are submitted, depending on their nature and the scope concerned, to one of EDF's decision-making Committees (see §2.1.6.1);
- other important decisions are taken by a committee of information system executives representing the branches and divisions.

Two large-scale projects were successfully undertaken in 2007: the preparation for full market opening on July 1, 2007 and the establishment of the distribution subsidiary on January 1, 2008. These projects mobilized all areas of IS, the project management being fulfilled by the distribution and sales and marketing IS teams and the crossfunctional information systems teams (Finance and HR in particular), with the project management teams and the Group Information Systems Division ensuring overall coordination. Finally, the relationship between EDF and the ERDF distribution subsidiary will be defined by an agreement protocol to be finalized within the framework of the governance of this subsidiary to be established in early 2008.

In addition, the work of the "EDF IS 2010" strategic plan continued in 2007 under the direct responsibility of corporate management.

#### 2.1.6 INTERNAL CONTROL FUNCTIONAL PLAYERS

#### 2.1.6.1 Corporate Management Internal control bodies

The internal control bodies are organized to fulfill two major priorities: improve functioning as an integrated Group and involve the operating personnel in the decision-making process.

As of April 1, 2006, the TOP 4, which comprises the Chairman and Chief Executive Officer and the three Chief Officers, is the Group's senior decision-making body. The Executive Committee (Comex), a body for strategic discussion and consultation on all cross-functional and cross-divisional matters, comprises the members of the TOP 4, Deputy Managing Directors, the General Secretary, and the Chief Executive Officers of EDF Energy, the President of the Executive Board of EnBW and the Managing Director of Edison.

A limited number of specific decision-making committees support the work of the Executive Committee: the Coordination Committee France, the Commitments and Shareholdings Committee (*Comité des Engagements et Participations* – CEP), of which an ad hoc form may handle fuels alone (CEP-Fuel matters), the Senior Executive Management Committee, the Nuclear Safety Advisory Board and the Steering Upstream – Downstream – Trading Committee etc. In addition, ad hoc committees or boards are assembled to handle strategic issues of a temporary nature. Specific arrangements for the governance of the regulated sector will be implemented in early 2008.

#### 2.1.6.2 The Finance Division

The Finance Division ensures the monitoring and control of financial risk. It maintains a watching brief on market developments and financial techniques and analyzes the financial risks associated with projects. The Commitments and Shareholdings Committee is chaired by the Chief Financial Officer (see 2.3.1.2.1)

Within Group Controlling:

#### Management Control is responsible for:

• steering the forecasting processes of the Group's<sup>74</sup> management cycle (budgets and medium-term plans based on the industrial project),

summarizing the main results and arbitrating between conflicting claims at branch, division and Group level. It acts as an alert mechanism, prior to a decision being taken, of the consequences of the planned projects or the performance levels proposed and provides analytical support;

- helping operating management to monitor performance: tracking of budget execution (involving reforecasting four times a year) and operational results is effected through regular broad-based performance reviews across all branches and divisions and the majority-controlled subsidiaries;
- acting as Group management controller, notably by participating in investment monitoring and analysis to ensure economic and financial optimization.

Management control is embedded at the level of each management entity. The Controllers are members of the Management Committee of the entities to which they belong. Heads of Financial Management in the branches and divisions are appointed and evaluated by the Chief Financial Officer.

#### **Accounting** is responsible for:

- specifying the Group's accounting rules and methods which guarantee the standardization of accounting treatment and the correct input from the upstream processes;
- the annual updating, for EDF, of the internal control reference frameworks, assessing the accounting quality implemented by process and organizing feedback on implementation by the entities of the control procedures stipulated in the accounting and financial area (see § 2.3.2.3).

Additionally, within the scope of the directly-controlled subsidiaries, the internal control accounting policies are the responsibility of each of the Finance Departments.

Within the Corporate Finance, Finance & Treasury Division, **Financial Risk Control** is responsible for managing interest rate, currency, cash flow and counterparty risk across the Group (see §2.3.1.1.2). Furthermore, within the framework of the Internal Control policy, Financial Risk Control contributes to managing the operating risks of Corporate Finance, Finance & Treasury Division activities.

#### 2.1.6.3 Corporate Risk Management Division

For many years the EDF Group has implemented a policy for managing its operating, financial and organizational risk.

Faced with an evolving context, EDF decided, as of 2003, to establish an overall process for managing and controlling its risks, strengthening the existing provisions, notably in creating the Corporate Risk Management Division. The Corporate Risk Management Division is responsible for:

- establishing and updating the consolidated risk mapping for the EDF scope and that of the controlled and jointly-controlled subsidiaries and affiliates (with the exception of Dalkia International), based on reporting from the latter (see §2.2);
- alerting the Chairman and Chief Executive Officer and the TOP 4 as to emerging risks or those which have not been adequately identified;
- consolidating and updating the risk control policy, either directly within the EDF scope and that of the controlled subsidiaries, or through the governance bodies for the regulated or jointly controlled subsidiaries and affiliates (see §2.2) in, notably, ensuring the comprehensiveness and consistency of the various sector risk control policies (see §2.3.1.1);

<sup>74</sup> The scope of the Group's management cycle is that of the consolidated financial statements and is detailed in the notes to the consolidated financial statement.

- ensuring the deployment of the energy market risk policy within the scope of EDF and that of the controlled subsidiaries and, more generally, ensuring the control of these energy market risks either directly, within the EDF scope and that of its controlled subsidiaries, or through the governance bodies of the regulated or jointly-controlled subsidiaries and affiliates (see §2.3.1.1.1);
- controlling the comprehensiveness and relevance of the risk analysis conducted on projects involving long-term investment and commitments and submitted to the TOP 4-level bodies for approval;
- updating the policy on crisis management for the scope of EDF and the controlled subsidiaries, and defining the cooperation measures with the regulated subsidiaries during periods of crisis (see §2.2);
- ensuring the control of all suppliers and sensitive contracts in liaison with the Purchasing Division and the business branches concerned within the EDF scope.

#### 2.1.6.4 Group Audit Function

The Group's audit function comprises all the internal control resources involved in internal audit at Group, parent company and subsidiary and affiliate level. It is organized around "business line" audit teams deployed within the structures of the main regrouped entities (generation, sales and marketing, etc) within EDF, "dedicated" autonomous audit teams within the main subsidiaries and affiliates (EDF Energy and EDF-Trading, EnBW, Edison) and the regulated subsidiaries. The Corporate Audit Division is responsible for controlling certain internal audit procedures (EDF, EDF Energy, EDF-Trading), as well as transverse audits or those of "corporate" importance for the Group, while respecting regulatory and governance constraints<sup>75</sup>. Responsibility for overseeing this function falls to the Chairman, who delegates this task to the Head of Corporate Audit.

The Group's Corporate Audit Division, which intervenes on the whole available scope, applies the international standards defined by "The Institute of Internal Auditors":

Qualification standards:

- the duties, powers and responsibilities of the auditors are defined in a charter which was updated within the framework of the Internal Control policy of March 7, 2006. This charter reiterates the independence of the audit function and its direct reporting line into the Chairman and Chief Executive Officer, the missions and commitments of internal audit, the duties and the powers of the auditors and of the entities audited;
- the Head of Corporate Audit reports directly to the Chairman and Chief Executive Officer;
- all the auditors in the Corporate Audit Division are trained to use the same methodology, consistent with international standards. They are recruited from EDF's different businesses, as well as from external audit offices. Each auditor is evaluated at the end of each mission and audit experience is considered as a positive career asset. A protocol agreement has been signed to this effect between the Corporate Audit Division and the Senior Executive Development Division;
- the number of auditors is in line with the industry average: 0.45 auditor for 1,000 employees<sup>76</sup>;
- the key processes essential to the proper functioning of the Corporate Audit Division over the chain of activities (from the drawing up of the audit program to the monitoring of the implementation of recommendations) are detailed in the form of quality plans which are regularly reviewed. An independent evaluation was conducted at the beginning of 2005 and the process should be repeated in 2008; this will cover both the functioning of the operating processes and the quality of the audits conducted by the

<sup>75</sup> According to case by case agreements via the governance bodies of the non-controlled and

Corporate Audit Division, and how comprehensively and appropriately the internal control objectives outlined by the French financial markets authority (*Autorité des Marchés Financiers* – AMF) are reflected in the Group's new internal control policy.

Standards of functioning:

- the Corporate Audit Division is now focused on its new core function, based on the deployment of the internal control policy and the coordination of the internal control function, together with the realization of both transverse and corporate-level audits;
- the half-year audit program is decided by the Chairman and Chief Executive Officer then submitted to the Audit Committee. In order to consider the new positioning of the Corporate Audit Division, it is established taking into account:
- The Group's internal control policy, involving as of January 2008 missions to audit the internal control procedures within the accessible entities,
- The Group risks identified in the risk mapping,
- The monitoring of the implementation of decisions taken by executive management and the systematic auditing of major projects,
- Requests from corporate management, excluding the "snap" audits requested during the execution of the program,
- Audits of the second line controlled subsidiaries, provided as a service to the branches and divisions responsible (for example International and Gas Branch),
- Joint audits with EnBW within the scope of this management structure, as well as with Veolia Environnement for the Dalkia International scope, and audits conducted within the scope of EDF Energy and EDF-Trading;
- all audits give rise to recommendations which, after ratification by the audited entities and their management, form the basis for action plans on their part, which are submitted for approval to the Corporate Audit Division. During the year following the audit, the Corporate Audit Division monitors the progress on the implementation of these rectification plans, the audit considered to have reached a satisfactory conclusion only when these measures have been fully implemented. An unsatisfactory conclusion to an audit or one where reservations are expressed triggers a management alert;
- the audits are presented in three ways to facilitate their appropriation: a detailed report for the audited entity, a summary report for the management of the audited entity, commentary from the Corporate Audit Division for the attention of TOP 4 members;
- a half-year summary report is established by the Corporate Audit Division. It resumes the main audit findings and the corresponding corrective management action, as well as the results of the audit conclusions during the period. It also identifies possible recurring or generic problems appearing over the course of several audits conducted during the period which are worthy of the particular attention of the TOP 4. This report is presented first to the Chairman and then to the Audit Committee.

Furthermore, in July 2007, the Head of Corporate Audit was tasked by the Chairman and Chief Executive Officer with verifying the required separation between regulated and deregulated activities during the period prior to the implementation of the ERDF subsidiary.

#### 2.1.6.5 The Legal Affairs Division

In order to remain as close as possible to the decision-making bodies, whether at TOP 4, branch, division or regional level, the organizational structure of the Legal Affairs Division is based on that of EDF. The Legal Affairs Division is consulted whenever contracts have to be drawn up and whenever the legal risks relating to corporate projects have to be analyzed. It also ensures the centralized monitoring of major litigation. All of its activities enable it to fulfill an alert function and to play a role in avoiding litigation.

regulated subsidiaries and affiliates

76 Source French Institute of Audit and Internal Control (Institut Français de l'Audit et du Contrôle Interne – IFACI): result of the study on internal audit practice in France in 2005.

Further to a decision taken by the Chairman and Chief Executive Officer in May 2007, the Legal Affairs Division is managing the implementation of a contract database aimed at centralizing all the Group's major contractual commitments. The operating deployment phase began in late 2007.

#### 2.1.7 EXTERNAL CONTROLS

Like all listed companies, EDF is subject to the scrutiny of the French financial markets regulator (*Autorité des Marchés Financiers* – AMF). In that it is majority controlled by the French State, EDF is also subject to control by the French public accounting institution (*Cour des Comptes*), the State controllers, the Inspectorate of Public Finances, the Commission for Economic Affairs of the French National Assembly and Senate and the Markets Commission.

Pursuant to French law, the Statutory Auditors certify the annual financial statements (parent company and consolidated), sign off on the Group consolidated half-year financial statements and comment on the annual report from the Chairman of the Board of Directors with regard to the internal control procedures relating to the establishment and processing of accounting and financial information.

Owing to the nature of its business activities, EDF is also subject to control by the French Energy Regulation Commission (*Commission de Régulation de l'Energie* – CRE) and by the French government department responsible for nuclear safety (*Direction Générale de la Sûreté Nucléaire et de la Radioprotection* – DGSNR).

The findings of these different external review bodies feed into the Group's internal control programs.

#### 2.2 RISK MANAGEMENT AND CONTROL POLICY

The objectives of the risk management and control policy are to:

- enable the identification and ranking of risk in all areas in order to ensure their increasingly effective control, under the responsibility of operating management;
- ensure that top executives and governance bodies within EDF have an aggregated and regularly-updated picture of the major risks and their level of control:
- contribute to securing the Group's strategic and financial trajectory;
- meet the expectations of external stakeholders and inform them of the Group's risks and the procedures for managing these risks.

The risk management scope comprises the activities of EDF and those of the controlled subsidiaries. Thus, it does not include the regulated and jointly-controlled subsidiaries and affiliates which are responsible for controlling the risks within their respective scopes.

The risk control scope is that of the Group, with the exception of the Shareholdings. This control is exercised directly for the EDF scope and that of its controlled subsidiaries, or through the governance bodies of the regulated or jointly-controlled subsidiaries and affiliates.

As a general rule, the operating and functional entities are responsible for managing the risks which fall within their scope of activity. Risk control is ensured entirely independently of the risk management functions (supplemented by specific control concerning, in particular, financial and energy market risks — see § 2.3.1.1). This notably ensures a consistent approach to the identification, evaluation and control of risks. According to these principles, each half year, consistent with the reporting schedule for the Group's half-year consolidated financial statements, EDF draws up

the consolidated risk map of its major risks within the EDF scope and that of its controlled and jointly-controlled subsidiaries and affiliates (with the exception of Dalkia International). This consolidated risk map is based on mapping exercises established by each operating or functional entity using a common methodology (typology, identification, evaluation and risk controlling principles, etc.). Each risk identified is the subject of a clear action plan. Responsibility for the major risks falls to an executive appointed by the TOP 4.

The consolidated risk map is submitted, each half-year, for approval to the TOP 4 and presented to the Audit Committee of the EDF Board of Directors. It is also regularly reviewed with the top executives of the main contributing branches and divisions and with members of risk control.

The overall risk mapping procedures form the basis of a number of other procedures: the establishment of the audit program, the Insurance policy and its implementation, the financial documentation (notably the "Risk Factors" chapter of the AMF *Document de Référence*), the analysis of risks involved in projects reviewed by EDF's decision-making bodies (TOP 4, Commitments and Shareholdings Committee, CEP-Fuel matters, the Steering Upstream – Downstream – Trading Committee, etc.). The risk control process contributes, in particular, to securing the process for investments and long-term commitments in monitoring the respect of the methodology principles used for the risk analysis of projects submitted to the Commitments and Shareholdings Committee.

In addition, EDF has a crisis management policy, the latest version of which was signed off by the Chairman and Chief Executive Officer in June 2005, which applies to the EDF scope and that of the controlled subsidiaries. It consists, notably, of:

- ensuring the existence of appropriate crisis management procedures, with regard to the risks encountered in each EDF division involved in managing the crisis and in the controlled subsidiaries;
- defining the procedures for cooperating with the regulated subsidiaries during crisis periods;
- verifying the overall consistency.

A program of crisis management enables the effectiveness of these procedures to be regularly stress-tested and to capitalize on the experience gained. Finally, the crisis management organization is regularly readjusted to reflect any significant change in internal organization or the external environment as well as in the light of feedback on any major crisis undergone.

#### 2.3 GROUP CONTROL ACTIVITIES

### 2.3.1 INTERNAL CONTROL PROCEDURES RELATING TO THE IMPLEMENTATION AND OPTIMIZATION OF OPERATIONS

#### 2.3.1.1 Sector policies on risk control

#### 2.3.1.1.1. Control of Energy Market Risks

The Chairman and Chief Executive Officer's decision of December 9, 2005, formalizing the policy on energy market risks, standardizes the management of these risks within the EDF scope and that of the controlled subsidiaries and stipulates the necessary procedures for its implementation and the control of its application. For the regulated and jointly-controlled subsidiaries and affiliates, the energy market risks policy and the control procedure are reviewed within the framework of the governance bodies of these companies (Board of Directors, Audit Committee). This policy document specifically outlines:

- the governance and assessment procedures, clearly separating the responsibilities with regard to the management and control of risks and enabling the tracking of exposure within the scope defined above;
- the risk control procedures involving EDF management whenever risk limits are exceeded. Note that particularly rigorous risk control procedures are in operation at EDF Trading, given the specificity of the business activities and the fast reaction time required;
- energy market risks controlling, with a two-tier organizational structure, the entities ensuring operating control and the Group Energy Market Risk Department of the Corporate Risk Management Division ensuring a second level of control.

EDF's Audit Committee comments on the energy market risks policy and its development. The TOP 4 approves annually the mandates for risk management in the entities when they are submitted to it along with the budget.

#### 2.3.1.1.2 Financial Risk Control

EDF has established a Financial Risk Control Department, responsible for managing interest rate, currency, cash flow and counterparty risk for the controlled subsidiaries. This control is exercised through:

- the verification of the proper application of the financial risk management principles, notably through the regular calculation of the risk indicators and the tracking of risk limits;
- the execution of control missions methodology and organization within the EDF entities and the controlled subsidiaries;
- the operating control of EDF's trading room which is responsible for treasury management. For these activities, a system of indicators and risk limits, verified daily, is in place to track and control financial risk exposure. The Head of Group Treasury, the Head of the trading room and the Head of Financial Risk Control are involved in this and are expected to respond the moment a limit is exceeded. An ad hoc committee does spot checks on limit compliance and decides on any changes to specific limits.

An annual report on the implementation of financial risk management policies is made to the Audit Committee.

Attached to the Corporate Finance, Finance & Treasury Division within the Finance Division, this Department has close operational links with the Corporate Risk Management Division in order to guarantee its independence.

#### 2.3.1.2 Specific controls

#### 2.3.1.2.1 Procedure for approving commitments

The Commitments and Shareholdings Committee (Comité des Engagements et Participations – CEP), chaired by the Chief Financial Officer, reviews all of the Group's commitments, excluding those of the regulated and jointly-controlled subsidiaries and affiliates, including investment projects, disposal projects and long-term "Fuel" contracts. It approves every investment involving sums in excess of €20 million. Since late March 2003, Committee meetings have been systematically preceded by a meeting involving experts at corporate level (Corporate Risk Management, Legal Affairs, Finance, etc.) in order to verify the exhaustiveness and the depth of the risk analysis on the projects submitted. This work is based on a methodology reference framework for the analysis of the risks involved in development projects which takes into account the full impact of a project and, particularly, the evaluation of a number of stress scenarios.

#### 2.3.1.2.2 Control of Information Systems (IS)

• organization of the internal control of Information Systems:

The internal control procedure of IS is an integral part of the Group's internal control policy (proposed control objectives to be deployed by the operating entities) and covers the implementation of IS policies. These policies address, in particular, the security of information systems, the management of IS projects, the management of IS risk and the respect of the French Data protection legislation.

• measures with regard to IS security:

The orientation and organization of IS security is defined in two reference documents: the EDF Group Information System Security policy and the EDF IS security policy reference framework. The application of these policies as well as the level of security are monitored quarterly by a security committee, chaired by the Information Systems Division, which regroups the Heads of Information System Security in all the EDF entities. The security committee reports annually to the committee of the information systems top executives. Action has been taken to strengthen the control of risks linked to a major collapse involving one of the main computer centers. Business continuity plans have been defined and tested for the applications most critical to the company's functioning.

• other measures in the IS area:

A new Data Protection policy has been defined and implemented within the EDF scope in line with the appointment, in late 2006, of a Head of Data Protection.

The Group IS Division and the Corporate Audit Division have jointly launched a diagnostic to test the robustness of the internal control procedure relating to EDF's Information Systems. This diagnostic aims to improve the Group's control over IS risks; its conclusions are expected at the end of the 2008 first quarter.

#### 2.3.1.2.3 Administration and supervision of subsidiaries/affiliates

Each subsidiary or affiliate (with the exception of the regulated subsidiaries) reports to a top executive who is a member of the Executive Committee or to his or her delegated representative. This individual is responsible for proposing the Board members who represent EDF within the governance bodies of these companies, to whom a letter is addressed outlining their remit and objectives. These assignments are updated each year by the Senior Executive Management Committee.

The Delegation of Board Directors and Companies, in place since 2002, closely monitors:

- the updating of the mapping of company reporting lines, in light of decisions taken by the TOP 4;
- the tracking of "target composition profiles" which foresee the assembly of the necessary collective skills, as well as the profiles necessary to represent EDF effectively on the Boards of Subsidiary and Affiliate companies, in light of the strategy defined by the top executives to whom they report;
- compliance with the appointment process for Board directors, required prior to the nomination proposal (conformity with the target profile, control of the number of mandates, reporting line approval of the proposed Board director, etc.);
- the professional standards of new Board directors (initial training by the Corporate University, information via the internet site for the director community, on-going corporate training via seminars and directors' workshops).

#### 2.3.1.3 Other control policies

EDF has also defined:

- a health and safety policy, signed by the Chairman in October 2003;
- an insurance policy submitted to the Board of Directors on July 1, 2004, further to a report submitted to the Board directors on October 23, 2003, relating to "storm" risk cover for the distribution network. The Board took note of the report on EDF's situation and that of the controlled subsidiaries with regard to identified insurable risks and on the cover in place. It approved an action program intended to improve

awareness of the Group's insurable risks, to develop the Group's insurance dimension, to improve and optimize existing cover and to institute new cover. With respect to the latter, on February 22, 2006, the Board approved (following comments from the Audit Committee of February 17) the implementation of a new "nuclear damage"77 program, intended to cover significant accidental damage which could impact EDF's nuclear fleet. A progress report on the implementation of the work program of July 1, 2004 was presented to the Audit Committee meetings of May 5, 2006 and April 2, 2007, which approved the future development lines. The Committee was also provided with an updated overview of the Group's insurable risks and cover. Furthermore, the Audit Committee, which is regularly informed of developments in this area, was informed on August 28, 2006, of the conclusion of negotiations relating to the "Nuclear damage" program and on the implementation of "Full Site Cover" insurance for the EPR pilot at Flamanville

### 2.3.2 CONTROL PROCEDURES RELATING TO THE RELIABILITY OF FINANCIAL INFORMATION

#### 2.3.2.1 EDF Group financial statements

#### 2.3.2.1.1 Group accounting standards and principles

The accounting standards used by the EDF Group<sup>78</sup> conform with international accounting standards (IAS, IFRS and interpretations) approved by the European Union. The rules and accounting methods are described in the Group manual on accounting principles and summarized in the notes to the financial statements.

### 2.3.2.1.2 Procedure for establishing and controlling the consolidated financial statements

The consolidated financial statements are drawn up by the Consolidation Department based on data entered locally by each entity (entities of the parent company and of subsidiaries and affiliates) and restated in line with Group standards according to a unique chart of accounts.

The annual financial statements are presented to the Audit Committee then closed by the Board of Directors and approved by the Shareholders' Meeting. The half-year consolidated summary financial statements are presented to the Audit Committee and the Board of Directors.

The closure of each half-year and annual accounting period gives rise to the establishment of a detailed plan of all the deliverables expected from each player involved in the publication of the financial statements and their analysis in the management report and the reference document. Meeting with the parent company branches and divisions and the subsidiaries and affiliates allow for preparation for each half-year or annual account closing, by planning for any changes in treatment and ensuring the reported financial and accounting information is reliable. Performance indicators are used to monitor respect of the deadlines and the quality of the information assembled. A retroactive analysis of the difficulties encountered during the production phase enables a steady improvement in the production process and the analysis of the consolidated financial statements.

The use of a financial language shared by Accounting and Management Control contributes to the consistency of the Group's monitoring. This common language is one of the ways of ensuring continuity between:

- actual figures coming from accounting and the figures established within the framework of the forecasting phases;
- external financial communication and internal monitoring.

This common language promotes dialogue and cooperation between these two functions at all levels of the organization and contributes to securing the exchange of information between the players as well as the quality of the information produced.

Performance monitoring and the management dialogue are based on data produced under Group accounting standards, such as those deployed in the reporting of the consolidated financial statements.

### 2.3.2.1.3 Internal control on the quality of accounting within the Group

Within the scope of the directly-controlled subsidiaries, the internal control of accounting policies are the responsibility of each Finance Department. Action to coordinate these policies is planned for 2008.

#### 2.3.2.2 EDF parent company financial statements

#### 2.3.2.2.1 Principles and accounting standards

The electricity distribution activity in mainland France, historically owned by EDF, has been spun off into a separate subsidiary, with this unbundling backdated to January 1, 2007. This activity is now regrouped within the distribution subsidiary (Electricité Réseau de Distribution France – ERDF) and is thus not included in the scope of the EDF parent company financial statements.

The EDF parent company financial statements are established in accordance with French law. Accounting options compatible with international standards are prioritized whenever possible.

Thanks to a network of coordinators within the branches, the accounting translation of the Group's new activities as well as the impact of the transposition of new accounting standards or regulations are ensured.

### 2.3.2.2.2 Procedure for establishing and controlling the financial statements

The quality of divisional accounting is guaranteed by a contractual relationship with the Accounting Consolidation Division. This contractual relationship involves, at each management level, annual certification at the close of a financial year, which provides a picture of the accounting quality and highlights improvements to be made in the subsequent financial year. In addition, several audit missions entering into the scope of accounting and management control are included in the Group's audit program (thus, in 2007, missions relating to the "justification of investment expense – Capex", the "budget/Medium Term Plan/reforecast process", the "robustness of the payments process", the "governance of purchasing" and the "implementation of the counterparty risk policy" were all notably realized).

In addition to the parent company financial statements, pursuant to French law" EDF submits to the Energy Regulation Commission (CRE), after review by the Statutory Auditors, unbundled accounts for each activity: generation, distribution and other activities. These financial statements are established in line with the principles on unbundled accounting and recommendations made by the Energy Regulation Commission. Principles for unbundled accounts based on new criteria (supply to customers having exercised their eligibility – benefiting from new sales and marketing offers, supply to customers not having exercised their eligibility – maintained on the regulated tariff and gas supply) are in the process of approval with the Energy Regulation Commission.

<sup>77</sup> Implemented April 1, 2006

<sup>&</sup>lt;sup>78</sup> The scope of the Group's consolidated financial statements is detailed in the appendix to the financial statements.

The state of the s

### 2.3.2.3 Internal control on the quality of accounting within the EDF parent company

In 2007, the Accounting Consolidation Division formalized the internal control policy for accounting. This policy reiterates the objectives for the reliability and compliance of the reported accounting information, and for the preservation of the assets and prevention and detection of fraud. It concerns the monitoring of the accounting organization, the upstream process involving information entry into the accounting database and the production process for accounting information, account closings and financial communication.

The internal control procedure for accounting has, since 2007, been an integral part of the Group's overall internal control framework. Indeed, the Group's internal control reference guide has been enriched with control items to be implemented by all the entities concerning the crossfunctional processes which are upstream of accounting (sales, procurement, payroll, fixed assets, inventories, treasury, income tax and the production of accounts), as well as control items to be implemented by the entities producing decentralized financial statements. This internal control reference guide is supported by a reference framework for the control of accounting quality used within the parent company, enabling, via broad-based cross-functional processes, the measurement, using performance indicators, of the quality of the accounting information produced. It specifies, in particular, the criteria to be tested, the recommended sampling methods and the reporting to be provided. These measurement methods help, within the accounting area, to justify the self-appraisal realized by the entities since 2007.

The control procedures for accounting production aim to verify, in particular:

- the precision and comprehensiveness of the accounting information;
- the correct valuation of assets and liabilities, notably by the appropriate level of provisions for depreciation and for risks;
- the regular justification of accounting;
- the respect of the separation of financial years;
- the respect of legal obligations;
- the securing of the processes;
- the realization of inventories;
- the comprehensive taking into account of centralization operations.

The recommendations of the Guide relating to the application of internal control of reported accounting and financial information, defined by the French financial markets authority (Autorité des Marchés Financiers – AMF) at the beginning of 2007, have been taken into account within the Group's internal control reference guide and in the internal control procedures of the central structures for establishing the parent company and consolidated financial statements and in the functional structures contributing to reported financial information. The internal control procedures will continue to be strengthened on this basis in the future. The annual self-appraisal of all EDF structures and the subsequent audits of internal control will also integrate this new reference framework.

Furthermore, in order to support the reasonable assurance of the quality of the reported financial statements, a process to identify the accounting at risk based on a number of different criteria (amounts and sensitivity) was undertaken in 2007. The verification of the proper adaptation of the internal control framework for the financial statements identified has already begun and will be continued in 2008.

The updating of the financial security reference framework taking into account, in particular, the general roll-out of the SAP tool was completed in 2007.

2.3.2.3.1 Internal control of accounting initiatives carried out in 2007 In order to prepare for full market opening on July 1, 2007, action to secure customer accounting was pursued in 2007.

After the inventory of assets realized in 2002/2003, and in order to prepare for the unbundling of the distributor, work was carried out on the useful lifespans and the estimated valuations on which the renewal provision calculation is based (see notes to the consolidated financial statements). This work together with action to ensure the reliability of the flows concerning fixed assets will be continued at the level of the subsidiary.

With the increase in industrial investment in the electricity generation fleet and in support of changes in standards and organization between 2007 and 2012, action will be taken to bolster the reliability of the investment process and the recording of fixed assets within the generation activity. This will be pursued in coming years.

#### 2.3.2.3.2 Action plan for 2008 internal control of accounting

The verification of the adequacy of the control procedure within EDF will be pursued in 2008 within the framework of a joint approach involving accounting, management control and internal audit. It will then be extended to the subsidiaries which are directly controlled and integrated in the consolidated financial statements. These measures will enable the identification of best practice and allow them to be shared in order to enrich the Group's internal control reference guide.

Based on the financial security reference guide and within the framework of the strengthening of the internal control procedures on the accounting processes, measures to control various fraud scenarios will be developed with the branches and functional divisions concerned according to the activities.

A change in the organization of accounting production within EDF is foreseen as of 2008. The internal control activity will support this change in order to guarantee or even increase the quality of the reported accounting and financial information.

### 2.3.3 CONTROL PROCEDURES RELATING TO COMPLIANCE WITH LAWS AND REGULATIONS

The Legal Affairs Division has traditionally been responsible for keeping track of legislative and regulatory changes and raising awareness of those likely to have an impact for the Group within the branches and divisions concerned. Pursuant to a decision of June 1, 2007, the Legal Affairs and Corporate Audit Divisions have adopted an action plan aimed at formalizing the role of the Legal Affairs Division concerning the definition of control items prescribed in the different EDF entities in order that their own internal control plan should take these issues into account. These control items aim to ensure that these entities:

• indicate to the Legal Affairs Division the areas of regulation which particularly concern them so that it can ensure its monitoring mission in an optimum manner;

- systematically involve the Legal Affairs Division as early as possible in their strategic and with major legal risks cases, ensure that the delegations of power accorded within them correctly reflect their organization, identify their needs in terms of legal awareness, in the areas which concern them, including the cross-functional requirements to be identified by the Legal Affairs Division;
- ensure that individuals holding delegations of power have been trained by the Legal Affairs Division in order to be able to guarantee respect, within their entity, of the laws and regulations which are considered to be "fundamental".

#### 2.3.3.1 Regulation relating to the industrial operations

Numerous control procedures exist in the industrial, and especially nuclear, operations: two authorities are particularly worthy of note:

- the Senior Vice President, Nuclear Safety (Inspecteur Général pour la Sûreté Nucléaire IGSN) who, on behalf of the Chairman, makes sure that all aspects of safety and radioprotection in the nuclear facilities are fully taken into account and publishes an external annual report;
- **the Nuclear Inspection**, a service reporting directly to the Head of the Nuclear Operations Division (DPN), whose job is to verify the level of safety in the different entities of the Nuclear Operations Division.

Note that these areas were the subject of a corporate audit in 2007.

The law of June 28, 2006 and its application decree dated February 23, 2007, relating to the securing of the financing of the nuclear charges requires the Group to specify in a report the procedures and framework enabling the identification, evaluation, management and control of risks associated with the evaluation of the nuclear charge and the management of the assets to cover this. The first version of the report to meet this legal requirement was finalized in June 2007; this report includes a specific section on internal control and will be revised at least every three years and updated annually.

In other areas (such as the monitoring of pressure vessels and of dams), each entity is responsible for defining and implementing the appropriate control procedures.

#### 2.3.3.2 Other regulations

Control procedures are also implemented for the application of regulations on working conditions, labor law and employee benefits.

The implementation of management systems, particularly with regard to environmental considerations (see §2.1.2.2) and Health and Safety, has enabled tighter control of compliance with regulations and the anticipation of regulatory changes.

### 2.3.4 THE CONTROL PROCEDURES OF THE APPLICATION OF TOP 4 INSTRUCTIONS AND ORIENTATIONS

Within the framework of the deployment of the new Internal Control policy, a diagnostic of internal control by the Group's corporate management was conducted by the Corporate Audit Division in 2006, focusing particularly on the proper application of decisions taken by the Group's corporate management over the last 18 months.

Since 2007, a formalized decision has specified the procedure for establishing, circulating and monitoring the decisions taken by the Chairman and Chief Executive Officer and the Chief Officers for the committees they chair. The control of their application is respectively the responsibility of the Head of the Chairman and Chief Executive Officer's office and the secretaries of the corresponding committees, and may be

delegated to the Corporate Audit Division via, particularly, the audits in the annual Program. The Corporate Audit Division includes a progress report on the implementation of these decisions in its half-year report.

### 2.4 COMMUNICATION AND INFORMATION DISSEMINATION

The key points are as follows:

• financial communication:

Since the IPO in 2005, EDF has had procedures to prevent stock market transgressions. Hence a procedure has been defined to organize the respective roles within the company with regard to the establishment, approval and dissemination of financial communication. In particular, a Disclosure Committee has been created, tasked principally with ensuring the validation and consistency of EDF's different financial communication sources as well as the review and validation of the contents of all financial communication channels. This committee includes representatives from the Finance, Communication and Legal Affairs Divisions and is chaired by the Chief Financial Officer. Furthermore, a financial market compliance charter has been drafted, whose aim is to reiterate the insider trading rules and to foresee periods during which directors and employees party to insider information may not trade in the company's shares;

• the code of conduct:

Respect of the codes of conduct for the regulated subsidiaries is verified annually by the Energy Regulation Commission (CRE), which publishes the results in its annual report;

• awareness of top executives:

2007 saw the consolidation of the measures implemented during the previous year. Thus, the executive Intranet, available to EDF top executives was extended to the senior executives. It enables the communication and sharing of information useful to these individuals (decisions taken by the Chairman and Chief Executive Officer, Group reference frameworks, folders on current issues, etc.). Similarly, regular seminars are organized for top executives in order to familiarize them with important issues and major developments, the themes addressed in 2007 being the functioning of the energy markets, price formation and the EDF Group business model, together with the reform of the Employee Representative Bodies.

### 2.5 ACTIVITIES RELATING TO THE CONTROL OF GROUP INTERNAL CONTROL

There are three types of control activities undertaken by the Corporate Audit Division:

- control audits of control procedures (using around 20% of resources), and other different categories of corporate audits (see §2.1.6.4) which take into account the risks, potential significant shortfalls or external recommendations (see §2.1.7);
- controlling of the implementation of recommendations arising from these audits through a formalized audit conclusion process, involving the management reporting line and internal control coordinators of each entity concerned (see §2.1.6.4), the latter being responsible for ensuring the control of control procedures inside each of the entities within their scope;
- taking into account feedback, via:
- Half-year summaries from the Corporate Audit Division which highlight the salient points but also, as need be, the categories of shortfalls recurring in several audits conducted during the period,
- Annual reviews conducted between the Corporate Audit Division and each management executive during which an analysis of internal control procedures is shared, but which also involve situation reports on action plans initiated following previous audits, as well as future audit programs,

enabling the link between audits, risks and internal control measures to be reinforced,

- Regular bimonthly meetings of the Group's internal control function network (around 45 individuals), facilitating, in particular, benchmarking and the sharing of best practice,
- Regular meetings between the Heads of Audit in the principal non-French subsidiaries and affiliates (notably EDF Energy, EnBW and Edison) in order to discuss best practice and benchmarks, as well as common work to help the executive managements of these companies strengthen their internal control procedures.

Finally, a reference framework established by the Group's Corporate Audit Division defines the rules and responsibilities of the teams in the audit function, the procedures for establishing their audit programs and for raising the professional standards of auditors.

### --> 3.THE DYNAMICS OF CHANGE

For several years now, various changes in the organization and modes of functioning of the Group have enabled it to clarify and strengthen the internal control procedures. Hence, the implementation of a risk control and management process, the affirmation of the ethics policy, the drive to standardize and accelerate the establishment of the consolidated financial statements, the implementation of a new internal control policy which is continuously evolving to achieve the four key objectives recommended by the French financial markets authority (*Autorité des Marchés Financiers* – AMF) (see introduction) are all part of the momentum of ongoing improvement. New projects will also be undertaken in 2008, for example the control of Fraud risk or the diagnostic of the effectiveness of the Information System Internal Control procedure.

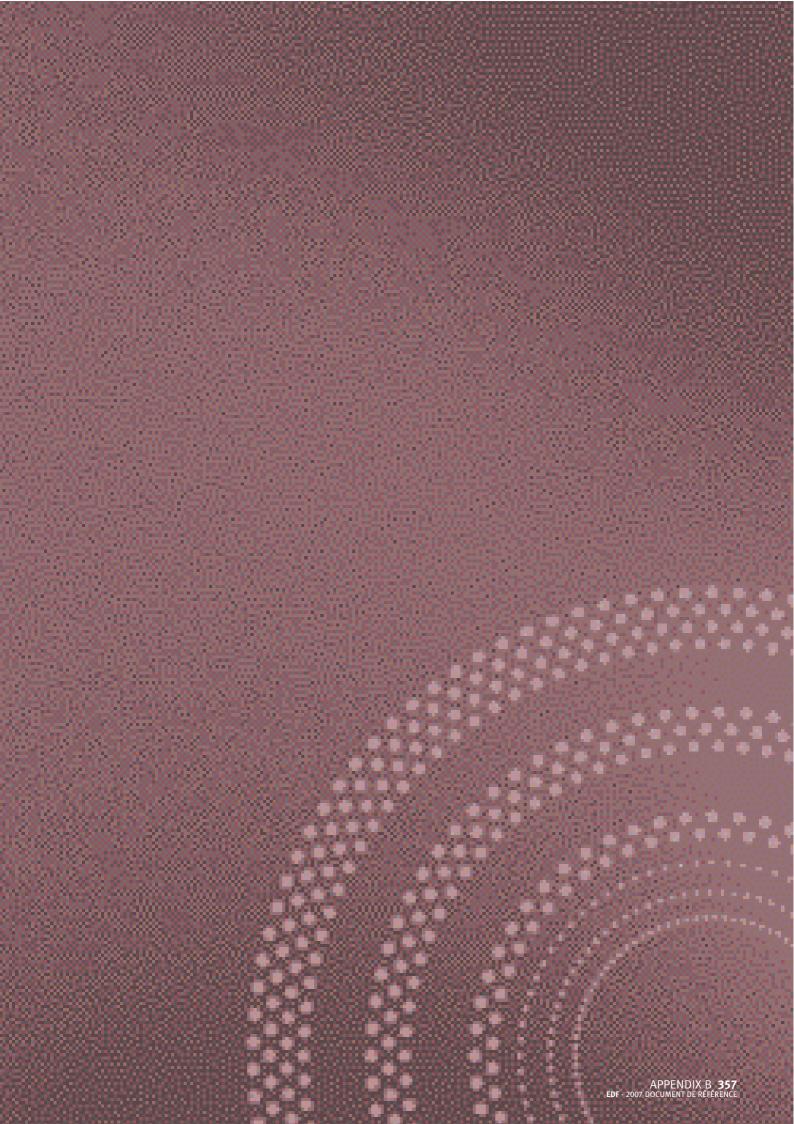
This report has been produced by a working group coordinated by the Corporate Audit Division, whose members were detailed in the introduction, and has been reviewed by, successively, the Disclosure Committee (February 8, 2008), the Chief Officers, the Audit Committee (February 15, 2008) and the Board of Directors (February 19, 2008).

Paris, February 19, 2008 Chairman and Chief Executive Officer of EDF Pierre GADONNEIX [THIS PAGE IS INTENTIONALLY LEFT BLANK]

# APPENDIX B ÉLECTRICITÉ DE FRANCE S.A.

Statutory Auditor's Report prepared in accordance with Article L. 225-235 of French Commercial Code (*Code de Commerce*), on the Report prepared by the President of the Board of Directors of Électricité de France S.A., on the internal control procedures relating to the preparation and processing of accounting and financial information

Year Ended December 31, 2007 Électricité de France S.A. 22-30, Avenue de Wagram – 75008 Paris



This is a free translation into English of a report issued in the French language and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.

Électricité De France S.A.

Registered office: 22-30, Avenue De Wagram - 75008 Paris

Statutory auditor's report prepared in accordance with Article L.225-235 of French commercial code (*Code de commerce*), on the report prepared by the President of the Board of Directors of Electricité De France S.A., on the internal control procedures relating to the preparation and processing of accounting and financial information

Year ended December 31, 2007

To the Shareholders

In our capacity as statutory auditors of Electricité de France S.A., and in accordance with Article L. 225-235 of French Commercial Code (*Code de commerce*), we hereby report on the report prepared by the President of the Board of Directors of your company in accordance with Article L. 225-37 of French Commercial Code (*Code de commerce*) for the year ended December 31, 2007.

It is the President's responsibility to describe in his report the preparation and organization of the Board of Directors' work and the internal procedures implemented by the company. It is our responsibility to report to you on the information contained in the President of the Board of Directors' report in respect of the internal control procedures relating to the preparation and processing of the accounting and financial information.

We conducted our work in accordance with French professional standards. These standards require that we perform the necessary procedures to assess the fairness of the information provided in the President of the Board of Directors' report in respect of the internal control procedures relating to the preparation and processing of the accounting and financial information. These procedures consisted mainly in:

- obtaining an understanding of the internal control procedures relating to the preparation and processing of the accounting and financial information on which the information presented in the President of the Board of Directors' report and existing documentation are based;
- obtaining an understanding of the work involved in the preparation of this information and existing documentation;
- determining if any significant weaknesses in the internal control procedures relating to the preparation and processing of the accounting and financial information that we would have noted in the course of our engagement are properly disclosed in the President of the Board of Directors' report.

On the basis of this work, we have nothing to report on the information in respect of the company's internal control procedures relating to the preparation and processing of the accounting and financial information contained in the report prepared by the President of the Board of Directors in accordance with Article L. 225-37 of French Commercial Code (Code de commerce).

Paris La Défense and Neuilly-sur-Seine, February 19, 2008

The Statutory Auditors

KPMG Audit
Department of KPMG S.A.

Deloitte & Associés

Jean-Luc Decornoy Michel Piette Amadou Raimi Tristan Guerlain

358 COMPTES CONSOLIDÉS EDF - 2007 DOCUMENT DE RÉFÉRENCE

[THIS PAGE IS INTENTIONALLY LEFT BLANK]

# APPENDIX C EDF GROUP

Mandates exercised by the Directors and the Chief Officers during the last five years (outside EDF)

## Appendix C

	Current	positions	Previous positions wit	thin the past five years
Name	Company/Organization	Position	Company/Organization	Position
Pierre Gadonneix	Transalpina di Energia	Chairman of the Board	Gaz de France	Chairman
		of Directors	Fondation Gaz de France	Chairman
	Edison	Director	Gaz de France	Chairman
	World Energy	Vice-Chairman	International	
	Council	Europe – Appointed	Petrofigaz (that	Director
		Chairman from the end	became Solfea)	
		of 2007 to the end of		
		2010 period		
	Electra Association	Chairman of the	MEGAL GmbH	Vice-Chairman member
		Board of Directors		of the Supervisory Board
	Economic and Social	Member	NOVERCO Inc.	Director
	Council			
	National Foundation of	Member of the	Dalkia	Member of the Supervisory
	Political Science	Board of Directors		Board
	Atomic Energy	Member	C3 SAS	Chairman
	Committee			
	Banque de France	Member of the		
		Advisory Council		
Pierre-Marie Abadie	Direction de la demande	Director		
	et des marchés énergétiques			
André Aurengo	Nuclear medicine	Head of the Department	French Society of	Chairman
	department at the		Radiation Protection (SFRP)	
	Pitié-Salpêtrière			
	Hospital			
	Medicine Academy	Member		
	High Council for	Member		
	Public Health			
Bruno Bézard	Agence des Participations	Chief Executive Officer	Renault	Director
	de l'Etat - (APE)		France Télévisions	Director
	Areva	Member of the	SNCF	Director
		Supervisory Board		
	La Poste	Director		
	Air-France – KLM	Director		
	France Telecom	Director		
	Thalés	Director		
Gerard Errera	Ministry of European	General Secretary	_	_
	and Foreign Affairs			
	Areva	Member of the		
		Supervisory Board		
	Atomic Energy Committee	Member		

	Current p	oositions	Previous positions wi	thin the past five years
Name	Company/Organization	Position	Company/Organization	Position
Yannick d'Escatha	Centre National	Chairman of the Board	France Telecom	Director
	d'Etudes Spaciales (CNES)	of Directors	SNET	Director
	Ecole Polytechnique	Chairman of the Board	EnBW	Member of the
		of Directors		Supervisory Board
	Arianespace SA	Permanent representative		, ,
		of the CNES		
	Arianespace	Permanent		
	Participation	representative of the		
	rarticipation	CNES		
	STARSEM	CNES' representative		
	STARGEIVI	as censor		
	RATP	Director		
Philippe Josse	Ministry of Budget, Public	Director of the	Défense Conseil	Director
riiiippe 3033e	Accounts and Public Service		International	Director
	Air France-KLM	National Budget	Société Nationale	Director
		Director Director		Director
For the Boston of	SNCF		Immobilière	D'and and have
Frank E. Dangeard	Thomson	Chairman and Chief	Thomson	Director, then
		Executive Officer until		non-executive Chairman
		April 9, 2008		
	CALYON	Director	Equant	Director
	(Credit Agricole Group)		Eutelsat	Director
	Symantec	Director	Orange	Director
Daniel Foundoulis	National Consumer	Member	_	_
	Council			
	European Consumer	Member		
	Consultative	representing France		
	Group in Brussels			
	National Council of the	Vice-chairman		
	Secular Family Associations			
	(CNAFAL)			
Claude Moreau	SCI la Maison	Manager	Inter-Ministry Commission	Chairman
	de l'Industrie	-	for clean and energy	
	Pôle de compétitivité	Director	sparing vehicles	
	Mobilité et Transport Avancés		3	
Henri Proglio	Veolia Environnement	Chairman and Chief	Vivendi	President of the
		Executive Officer	Environnement	Executive Board
	Veolia Transport	Chairman of the Board	B 1998 SL	Director
	redua manapare	of Directors	CEO	Member of the
	Veolia Eau	Manager	CLO	Supervisory Board
	Veolia Propreté	Chairman of the Board	CFSP	Member of the Supervisor
	veolia i Toprete	of Directors	CISI	Board
	Dalkia	Member of the A and B	Compon Australia	Director
	Daikia		Comgen Australia	Director
	Dellais France	Supervisory Boards	C	Chairman and
	Dalkia France	Chairman of the	Connex	Chairman and
		Supervisory Board	Camara A. S. 11-1.2	Chief Executive Officer
			Connex Asia Holdings	Director
	Dalkia International	Director	Connex Leasing	Director
	Eaux de Marseille	Director	Connex Transport AB	Director
			Connex Transport	Director
	Sarp Industries	Director	United Kingdom	Director
			Coteba Management	
	Veolia Water	Chairman of the Board of	Eaux de Melun	Member of the
		Directors		Supervisory Board
			Esterra	Director
	Veolia Environmental	Director	FCC Espagne	Director
	Services Australia		Grucycsa	Director
	Veolia Transport Australia	Director	Montenay International	Director
	Veolia Environmental	Director	ONYX	Chairman and
	Services	230001	5.117	Chief Executive Officer
	Veolia Transport	Director	ONYX United Kingdom	Director
		שוופננטו		חוובכנטו
	Northern Europe		Holdings	

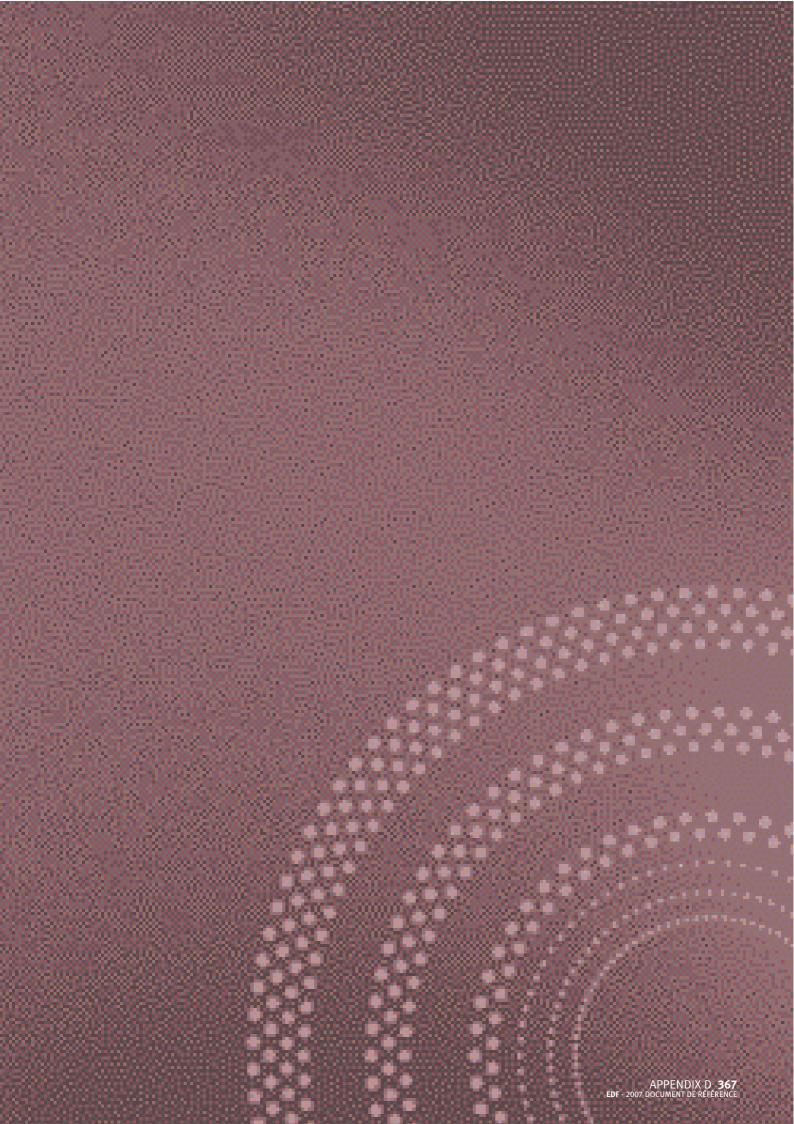
#### Appendix C

		positions		ithin the past five yea
lame	Company/Organization	Position	Company/Organization	Position
Henri Proglio continued	Veolia Environmental	Director	OWS	Director
	Services North America		SAFISE	Director
	Veolia Eau	Manager	SEURECA	Director
	Siram	Director	Elio	Member of the
	Casino Guichard	Director		Supervisory Board
	Perrachon		Wasco	Director
	CNP Assurances	Director	Vinci	Director
	Lagardère	Member of the	Sarp	Director
	3	Supervisory Board	Thalès	Director
	Natixis	Member of the	CNP Assurances	Member of the
		Supervisory Board	ern / Banarices	Supervisory Board
	Caisse nationale des	Censor in the	Veolia Environmental	Director
	Caisses d'Epargne	Supervisory Board	Services Asia	Director
ouis Schweitzer	Haute Autorité de Lutte	Chairman	Compagnie	Director
Louis Scriwertzer	contre les Discriminations	Cildiffiaii	Financière Renault	Director
				Director
	et pour l'Egalité (HALDE)		Pechiney	
	Renault SA	Chairman of the Board	Renault Crédit	Director
	L. M. L. I	of Directors	International Banque	
	Le Monde et	Chairman of the	Renault-Nissan BV	Chairman of the
	Partenaires Associés	Supervisory Board		Executive Board
	Le Monde SA	Chairman of the		
		Supervisory Board		
	Société Editrice du Monde	Chairman of the		
		Supervisory Board		
	BNP-Paribas	Director		
	L'Oréal	Director		
	Veolia Environnement	Director		
	AB Volvo	Director		
	Astra Zeneca	Chairman of the Board		
		of Directors		
	Allianz	Member of the		
		Consultative Committee		
	Philips	Vice-Chairman of the		
	· · · · · · · · · · · · · · · · · · ·	Supervisory Board		
	Banque de France	Member of the		
	banque de France	Consultative Committee		
Marie-Catherine Daguerr	<u> </u>	—		_
acky Chorin	_	_	Gaz de France	Director
Alexandre Grillat	_	_	_	_
Philippe Pesteil	_	_	_	_
Maxime Villota	_	_	_	_
lean-Paul Rignac	_	_	_	_
Daniel Camus	Dalkia	Member of the	Aventis Pharma France	Member of the
		Supervisory Board		Supervisory Board
	EnBW	Member of the	Hoechst Marion Roussel	Member of the
		Supervisory Board		Executive Board
		Sapervisory bound	Aventis Pharma Inc.	Director
	EDF Energy	Chairman of the Board	Bridgewater	Director
	LDI LIICIGY	of Directors	Aventis Pharma GmbH	Chairman of the
		OI DIRECTORS	AVEITUS FIIdITIIA UTTIVIT	Board of Directors
	EDE lateractive of	Chairman of the	Assertia Diagnos A.C.	
	EDF International	Chairman of the	Aventis Pharma AG	Member of the
		Supervisory Board		Executive Board
	Edison	Director	EDF Trading	Chairman of the
				Board of Directors
	Transalpina di Energia	Director		
	Morphosys	Member of the Supervisory		
		Board		

	Current positions		Previous positions within the past five years	
Name	Company/Organization	Position	Company/Organization	Position
Yann Laroche	EDF Energy	Member of the Board	RAC Eléctricité	Member of the
		of Directors		Supervisory Board
	ERDF	Chairman of the		
		Supervisory Board		
Jean-Louis Mathias	EDF Trading	Chairman of the Board	Gaz de France	Management
		of Directors	Fondation Gaz de France	Director
	EDF Développement	Chairman of the Board	Gaz de France	Censor
	Environnement	of Directors	International	
	Dalkia	Member of the	Compagnie Française	Director
		Supervisory Board	des Méthanes	
			Compagnie Française	Director
			des Méthanes Holding	
			COFATHEC	Director
			COGAC	Director
			Gaz du Sud Ouest	Director
			Petrofigaz	Director, permanent
				representative of Gaz
				de France
			Gaselys	Member of the
				Committee of Directors
			Association Française	Director
			du Gaz	

# APPENDIX D EDF GROUP

Information made available to the public by the EDF Group during the last 12 months (Annual document prepared pursuant to Article 222-7 of the AMF general regulations)



#### Appendix D



#### ANNUAL DOCUMENT ESTABLISHED PURSUANT TO ARTICLE 222-7 OF THE AMF GENERAL REGULATIONS

Pursuant to Article 222-7 of the AMF General Regulations, the following table lists all the informations which EDF made public since January 1, 2007, in order to satisfy the legal and regulatory obligations relating to financial instruments, financial instruments issuers and financial instruments markets.

# Information published by EDF and available on the website of the French financial markets authority (AMF) (www.amf-france.org) and/or on the website of EDF (www.edf.fr)

Information	Date
Le Groupe EDF et le Consortium d'industriels EXELTIUM signent un partenariat industriel et commercial	01/16/2007
EDF commande à AREVA la chaudière nucléaire de la future centrale EPR de Flamanville	01/24/2007
Edison and DEPA: a major step forward in the IGI project to build an Italy-Greece natural gas pipeline	01/31/2007
Edison is awarded five new hydrocarbon explorations licenses in Norway	02/12/2007
Chiffre d'affaires 2006 du Groupe EDF: 58.9 milliards d'euros, en croissance de 15.4%	02/14/2007
Chiffre d'affaires 2006: 334.8 millions d'euros – EDF Energies Nouvelles	02/14/2007
Edison net profit jumps to 654 million euros (+30%)	02/19/2007
EnBW presents consolidated financial statements for fiscal 2006 Group net profit in excess of one billion euros for the first time	02/20/2007
Des résultats 2006 en ligne avec la trajectoire prévue:	
<ul> <li>accélération des investissements opérationnels en France</li> </ul>	
– dynamisme des activités internationales	02/21/2007
Présentation des résultats annuels 2006	02/21/2007
Edison and Petrobas form an alliance for a hydrocarbon exploitation project in Senegal	02/27/2007
EDF Energies Nouvelles lance la construction d'un parc éolien de 52 mégawatts en France	02/28/2007
Nouvelle mise aux enchères de capacités de production d'électricité	03/07/2007
EDF Energies Nouvelles prend position dans les biocarburants:	
signature d'un protocole d'accord avec le leader européen de la distribution d'éthanol	03/12/2007
EDF Energies Nouvelles – 2006: Forte croissance des resultants	
– EBITDA: +47.3%	
– Résultat net: +31.9%	
– Confirmation des objectifs opérationnels et financiers	03/12/2007
Mise en service d'un parc éolien de 72 MW en Italie	03/19/2007
Gas liquefaction train 5 was inaugurated in Qatar. Output will be dedicated to the Rovigo LNG Terminal	03/20/2007
EDF et l'Association des maires de France signent une convention de partenariat	03/28/2007
EDF et l'énergéticien néerlandais Delta vont construire et exploiter une centrale à cycle combiné à gaz aux Pays-Bas	03/29/2007
EDF renforce ses activités dans le domaine des énergies renouvelables réparties et acquiert 66.5% de SUPRA	03/29/2007
Edison: The Shareholders' Meeting approves the 2006 Annual Report	04/05/2007
EDF engage le processus de cession du solde de sa participation dans le distributeur d'électricité argentin Edenor	04/10/2007
EDF Energie Nouvelles acquiert 50% des parcs éoliens de Nurri et d'Andretta Bisaccia, ses deux premières réalisations en Italie	04/17/2007
Nomination du Président du Directoire de RTE – EDF Transport	04/26/2007
2007 annual general meeting: EnBW elaborates further strategy for climate protection and growth	04/26/2007
2007 annual general meeting: The fourth time in a row – EnBW generates record result for the first quarter	04/26/2007
Price Cut for EDF Energy Customers	04/30/2007
Mise en service d'un parc éolien de 24 MW au Royaume-Uni	04/30/2007
EDF Energy signs green electricity deals with Flack Renewables Ltd	05/04/2007
Net profit rises to 87 Million Euros, +28%	05/09/2007
Chiffre d'affaires du 1er trimestre 2007: 47.7 millions d'euros	05/10/2007
1er trimestre 2007: Croissance organique du chiffre d'affaires de 1.8%, impactée par un climat doux	05/14/2007
L'énergie hydraulique, 1ère des énergies renouvelables du groupe EDF	05/18/2007
EDF déterminé à apporter son expérience et ses compétences nucléaires au service des projets britanniques	05/23/2007
Information	Date
EDF Energies Nouvelles lance la construction de son premier parc éolien offshore au sein de C-Power	05/23/2007
EDF et EnBW co-investissent dans un projet de développement de capacités de stockage de gaz naturel en Allemagne	05/31/2007
EDF and EnBW secure usage rights for underground gas caverns	05/31/2007
Pour finaliser sa préparation à l'ouverture des marchés, ES filialise l'activité de fournisseur d'énergies	06/01/2007
EDF et l'ouverture du marché de l'énergie au 1er juillet 2007	06/06/2007
Nomination de Marianne Laigneau, Secrétaire général et membre du Comité exécutif du Groupe EDF	06/11/2007
EDF prêt à l'ouverture totale des marchés de l'énergie le 1er juillet 2007	06/15/2007
EDF renforce son programme de construction de nouvelles centrales thermiques à flamme en France	06/18/2007
EDF attribue à AREVA le premier des grands contrats pour les prochaines visites décennales des réacteurs nucléaires de 900 MW	06/19/2007
Prof. Claassen does not make himself available for the extension of the contract	06/19/2007
EDF et RasGas annoncent un accord dans le gaz naturel liquéfié	06/26/2007
Est de hassas amontent un accora duns le guz naturer nyaéne	00/20/2007

Hans-Peter Villis succeeds Prof. Utz Claassen as CEO of EnBW	07/05/2007
EDF Energies Nouvelles franchit une nouvelle étape dans le développement de la filière solaire photovoltaïque	07/03/2007
EDF sponsor officiel et partenaire développement durable de London 2012	07/11/2007
	07/11/2007
The put and call options on the Edipower share capital were exercised	07/16/2007
EDF et Constellation Energy signent un partenariat stratégique pour le développement conjoint de centrales nucléaires	
de type EPR aux Etats-Unis	07/20/2007
EnBW's CEO Prof. Dr. Utz Claassen ends term of office on September 30, 2007	07/24/2007
EDF Energies Nouvelles passe une nouvelle commande de turbines à REpower pour son développement éolien aux Etats-Unis	07/25/2007
EDISON: Profit before taxes rises to 466 million euros, +64%	07/27/2007
1er semestre 2007: Croissance organique du chiffre d'affaires de 2.2%, caractérisée par la douceur climatique du début d'année	08/02/2007
The fourth time in a row – EnBW presents record result for the first six months	08/08/2007
Hausse modérée des tarifs de vente de l'électricité	08/16/2007
EDF dépêche des renforts exceptionnels en Martinique	08/20/2007
Nouvelle progression des résultats au 1er semestre 2007 conforme aux objectifs annoncés	08/31/2007
<u> </u>	09/05/2007
Rachat de la participation d'EGL dans Electricité de Strasbourg	09/07/2007
EDF, Partenaire Officiel de la Coupe de Monde de Rugby 2007	09/12/2007
EDF Energies Nouvelles annonce la signature d'un nouveau contrat d'approvisionnement en modules photovoltaïques	09/17/2007
EDF Energies Nouvelles met en service 36 mégawatts éoliens en Grèce  1er semestre 2007: résultats et perspectives conformes aux objectifs	09/17/2007
	09/17/2007
"Bleu Ciel d'EDF", le nouvel horizon commercial d'EDF	09/21/2007
	10/05/2007
EDF Energy calls for positive decision on new nuclear	10/08/2007
EDF Energies Nouvelles signe son troisième contrat d'approvisionnement en modules photovoltaïques	10/16/2007
EDF poursuit son programme de cessions avec la vente de ses actifs au Mexique	10/25/2007
La déconstruction des centrales nucléaires de première génération	10/26/2007
Green light for EDF Energy's new CCGT at West Burton	10/30/2007
Chiffre d'affaires EDF Energies Nouvelles des 9 premiers mois 2007: 283.4 millions d'euros	11/07/2007
Information trimestrielle: Croissance organique du chiffre d'affaires de 1.4% sur les 9 premiers mois de 2007	11/08/2007
Profit before taxes rises to 584 Million Euros, a gain of 13.4%	11/08/2007
Quarterly financial results for January – September 2007: EnBW solidly on track for growth	11/09/2007
EDF Energies Nouvelles met en service un nouveau parc éolien de 16 MW en France	11/13/2007
Communiqué d'EDF publié à la demande de la Commission belge bancaire, financière et des Assurances	11/14/2007
EDF Energies Nouvelles annonce la mise en service du parc éolien de Fenton aux Etats-Unis et franchit le seuil des 1 000 MW nets en	
fonctionnement	11/14/2007
EDF devient investisseur et opérateur en Chine pour développer des centrales nucléaires de type EPR avec son partenaire CGNPC	11/26/2007
EDF lance une large campagne de recrutement en accueillant plus de 1000 étudiants à la Cité des Sciences et de l'Industrie	11/26/2007
L'Energie nucléaire: pivot d'une production d'électricité sûre, efficace, compétitive et sans CO2	11/27/2007
Rejoindre EDF, leader européen des énergies de demain Investments of 6.2 billion euros in 2008-2013	11/27/2007 11/29/2007
EDF et Enel signent un partenariat stratégique sur l'EPR de Flamanville au sommet Franco-Italien	11/30/2007
EPR de Flamanville: démarrage de la construction de l'îlot nucléaire conformément au calendrier annoncé	12/04/2007
Les propositions d'engagement d'EDF relatives à son offre aux fournisseurs alternatifs d'énergie acceptées par le Conseil de la	12/04/2007
Concurrence	12/10/2007
Le projet EPR (European Pressurized water Reactor) à Flamanville 3	12/12/2007
Vague de froid: EDF mobilise ses moyens de production et poursuit ses investissements	12/19/2007
ERDF, nouvelle filiale d'EDF, en charge de la gestion du réseau de distribution	12/20/2007
Nominations dans le cadre de la création d'ERDF, nouvelle filiale d'EDF en charge de la gestion du réseau de distribution	12/21/2007
EDF a cédé ses actifs mexicains au groupe espagnol Gas Natural	12/28/2007
Information	Date
EDF Diversiterre: un nouveau statut pour la Fondation EDF	01/09/2008
EDF Energies Nouvelles poursuit son approvisionnement en modules photovoltaïques	01/14/2008
EDF et l'Etat du Qatar engagent une coopération dans le domaine énergétique	01/14/2008
Le Groupe ES, acteur majeur dans PEREN, réalise la plus importante installation de panneaux photovoltaïques en Alsace	01/14/2008
EDF Energies Nouvelles signe un accord avec REH pour développer la technologie CETO utilisant l'énergie des vagues	01/15/2008
EDF accueille le Docteur Pachauri, Prix Nobel de la Paix, à l'occasion de la remise des Trophées du Développement durable et	
annonce la création de la Fondation européenne pour les énergies de demain	01/17/2008
EDF vient de procéder avec succès à une émission obligataire d'un montant de 1.5 milliard d'euros	01/18/2008
L'énergie thermique à flamme: un atout essentiel dans le parc de production d'EDF pour répondre en temps réel aux pointes de	01/22/2000
consommation d'électricité  EDF lance un concours d'architecture pour promouvoir l'efficacité énergétique et les énergies renouvelables dans l'habitat	01/22/2008
LDI Tarice un concours a architecture pour promouvoir i enicacite energetique et les energies renouvelables dans i habitat	01/29/2008

#### Appendix D



EDF donne accès à 1500 MW d'électricité aux fournisseurs alternatifs en France	01/31/2008
EDF et la relance de l'énergie nucléaire dans le monde	02/04/2008
EDF Energies Nouvelles – Chiffre d'affaires 2007: 560.5 millions d'euros	02/07/2008
EDF accueille le centre européen de recherche sur l'efficacité énergétique sur son site des Renardières (77)	02/11/2008
Chiffre d'affaires annuel 2007: 59.6 Mds d'euros, en croissance organique de 2.5%	02/13/2008
EDF signe un contrat d'approvisionnement en gaz naturel liquéfié avec le groupe espagnol Gas Natural	02/14/2008
Le Groupe EDF poursuit son engagement en faveur de l'insertion professionnelle des jeunes issus des quartiers en difficultés	02/15/2008
Résultats 2007: EDF affiche une nouvelle année de progression de ses performances et de développement	02/20/2008
Présentation des résultats 2007	02/20/2008
EDF et EDF Energies Nouvelles organisent leur développement dans les énergies réparties	02/25/2008
EDF Energies Nouvelles: résultats annuels 2007 – une nouvelle année de forte croissance	02/25/2008
ERDF: premiers comptes de la filiale de distribution d'EDF	02/25/2008

# Information registered by EDF with the *Greffe* of the Paris Commercial Court (date of registration)

Information	Date
Registration of an amendment to the Asset Transfer Agreement with RTE-EDF Transport	01/24/2007
Minutes of the Board of Directors – Change of Directors	04/23/2007
Appointment of the auditor for the spin-off	05/30/2007
Extract of the minutes – Amendment of Articles of Association	06/29/2007
Updated Articles of Association	06/29/2007
C6 Asset Transfer Agreement	11/08/2007
Extract of the minutes – change of directors	11/12/2007
Report of the auditor for the spin-off	11/20/2007

# Information published by EDF in the *Bulletin des Annonces Légales Obligatoires* ("BALO") and available on the BALO website (www.balo.journal-officiel.gouv.fr)

Information	Date
Amendment to the announcement published on the BALO dated July 22, 2005 concerning the notice of an Asset Transfer Agreement	02/14/2007
2006 consolidated annual sales of the Group	02/16/2007
Convocation to the May 24, 2007 ordinary and extraordinary Shareholders' Meeting	03/12/2007
Annual separated and consolidated financial statements 2006	04/11/2007
Sales for the first quarter 2007	05/16/2007
Approval of the annual financial statements by the ordinary and extraordinary Shareholders' Meeting of May 24, 2007	06/08/2007
Sales for the first half of 2007	08/10/2007
Financial statements for the first half of 2007	10/03/2007
Convocation to the December 20, 2007 extraordinary Shareholders' Meeting	10/15/2007
Notice of an Asset Transfer Agreement	11/14/2007
Sales for the second quarter 2007	11/14/2007
Notice of a bond issue for a nominal amount of €1.5 billion	02/04/2008
2007 consolidated annual sales of the Group	02/15/2008

#### Information published by EDF abroad

Information	Publication	Date
Consolidated annual results 2006	International daily press	02/26/2007
Consolidated annual results 2007	International daily press	02/20/2008
	Financial publications	
Information	Publication	Date
Consolidated annual results 2006	EDF Group website (www.edf.fr)	02/21/2007
	Press release on the AMF website (www.amf-france.org)	
	Press conference	
	Presentation to analysts	
	National daily press	02/21/2007
	Financial websites	
Consolidated financial statements as of December 31, 2006	EDF Group website (www.edf.fr)	03/01/2007
Consolidated half-yearly results 2007	EDF Group website (www.edf.fr)	08/31/2007
	Press release on the AMF website (www.amf-france.org)	
	Presentation to analysts	
	National daily press	08/31/2007
	Financial websites	
Consolidated annual results 2007	EDF Group website (www.edf.fr) `	02/20/2008
	Press release on the AMF website (www.amf-france.org)	
	Press conference	
	Presentation to analysts	
	National daily press	02/20/2008
	Financial websites	
Consolidated financial statements as of December 31, 2007	EDF Group website (www.edf.fr)	02/27/2008

# Information available to EDF shareholders as part of the Shareholders' Meetings

Information	Date
Invitation to the ordinary and extraordinary Shareholders' Meeting	ordinary and extraordinary Shareholders' Meeting on May 24, 2007
The text of the resolutions and summary of the Group's activity	ordinary and extraordinary Shareholders' Meeting on May 24, 2007
The guide to the General Meeting	ordinary and extraordinary Shareholders' Meeting on May 24, 2007
The invitation to the extraordinary Shareholders' Meeting	extraordinary Shareholders' Meeting on December 20, 2007
The guide to the General Meeting	extraordinary Shareholders' Meeting on December 20, 2007
The Asset Transfer Agreement	extraordinary Shareholders' Meeting on December 20, 2007
The report of the auditor for the spin-off on the assets valuation	extraordinary Shareholders' Meeting on December 20, 2007
The report of the auditor for the spin-off on the assets consideration	extraordinary Shareholders' Meeting on December 20, 2007

# Documents published as part of the initial public offering and available on the website of the French financial markets authority (AMF) (www.amf-france.org)

Information	Date
2007 Document de référence	04/19/2007
Prospectus de base relating to the issuance of debt securities program for a total amount of €11 billion	06/07/2007
Prospectus supplement to the <i>Prospectus de base</i> relating to the issuance of debt securities program for a total amount of €11 billion	09/10/2007
Prospectus supplement to the <i>Prospectus de base</i> relating to the issuance of debt securities program for a total amount of €11 billion	12/05/2007

# APPENDIX E EDF GROUP

EDF's financial statements and Statutory Auditors' Report on the financial statements

....

000

0 0 0

...

...

...

0 0 0

0 0 0

3535

.

.

•

.

۰

.

.

0

0

• .

.

0

.

000

0.0

.

0 0

.

0

6

.

0

0 .

.

0 0 0

0000

.... ....

....

....

0000

0000

500

1550

1000

.

.

.

0

.

.

.

.

#### Contents

---}

Fina	n <mark>ci</mark> al	statements	376	Note 7. Purchases and other	
Inco	me s	statements	376		394
Bala	nce :	sheets	377	Note 8. Taxes other than income taxes	394
Cash	flov	w statements	379	Note 9. Personnel expenses	395
		the financial statements	380	Note 10. Other operating expenses	395
			380	Note 11. Depreciation and amortization	396
IVOLE		Accounting principles and methods		Note 12. Provisions	396
		ACCOUNTING POLICIES	380 381	Note 13. Financial result	397
	1.2 1.3	CHANGE OF ACCOUNTING METHOD  MANAGEMENT ESTIMATES	381		397
		SALES	381	Note 14. Exceptional result	991
		INTANGIBLE ASSETS	381	Note 15. Income taxes	398
	1.6	PROPERTY, PLANT AND EQUIPMENT	382	15.1 TAX GROUP	398
	1.7	LONG-TERM ASSET IMPAIRMENT	383	15.2 INCOME TAX PAYABLE	399
	1.8	FINANCIAL ASSETS	384	15.3 DEFERRED TAXES	399
	1.9	INVENTORIES AND WORK-IN-PROCESS	384	Note 16. Gross values of intangible	
	1.10	ACCOUNTS RECEIVABLE AND MARKETABLE SECURITIES	385	and tangible fixed assets	<del>1</del> 00
	1.11	DEFERRED CHARGES	385	Note 17. Depreciation, amortization	
	1.12	TRANSLATION OF RECEIVABLES AND PAYABLES		and provisions on intangible	
		IN FOREIGN CURRENCIES	386	and tangible fixed assets	401
		TAX REGULATED PROVISIONS	386 386	Note 18. Investments	<del>1</del> 02
		SPECIAL CONCESSION ACCOUNTS PROVISIONS FOR RISKS AND EXPENSES	387	18.1 MOVEMENTS IN INVESTMENTS	402
		PROVISIONS AND OBLIGATIONS	307	18.2 SUBSIDIARIES AND INVESTMENTS	
	0	FOR EMPLOYEE BENEFITS	388	OF AT LEAST 50% OF CAPITAL	403
	1.17	FINANCIAL INSTRUMENTS HEDGING INTEREST RATE		18.3 SUBSIDIARIES AND INVESTMENTS	
		AND EXCHANGE RATE RISKS	388		404
	1.18	TREASURY SHARES	389	18.4 ESTIMATED VALUE OF THE INVESTMENT SECURITIES PORTFOLIO	404
	1.19	FREE SHARES	389		405
Note	2. 9	Significant events and transactions			
		of 2007 with an impact	200	Note 19. Related companies	405
	C	on the financial statements	390	19.1 RELATIONS WITH THE FRENCH STATE	
	2.1	TRANSFER OF THE ELECTRICITY DISTRIBUTION		AND STATE-OWNED ENTITIES	406
		ACTIVITY TO A SUBSIDIARY	390	Note 20. Inventories and work-in-process	<del>1</del> 07
	2.2	IMPLEMENTING PROVISIONS FOR FRENCH LAW 2006-739 OF JUNE 28, 2006 ON SUSTAINABLE MANAGEMENT		20.1 NUCLEAR FUEL AND MATERIALS	407
		OF RADIOACTIVE MATERIALS AND WASTE	391		407
	2.3	FREE SHARE PLAN FOR GROUP EMPLOYEES	391		
		INTERIM DIVIDEND CHANGES IN EDF'S CAPITAL AND A NEW	392	The second of th	408
	2.3	EMPLOYEE OFFERING	392	Note 22. Marketable securities	408
Note	3. 9	Sales	392	Note 23. Variation in cash and cash equivalents reported in the cash flow statement	409
Note	4. (	Operating subsidies	393	Note 24. Unrealized foreign exchange	
Note		Reversals of provisions,			<del>1</del> 09
	ā	amortization and depreciation	393	Note 25. Variation in equity	<b>410</b>
Note	6. 0	Other operating income	394	Note 26. Special concession accounts	411
				• · · · · · · · · · · · · · · · · · · ·	

Note 27.	Provisions	411	Note 34. Financial instruments	426
27.1	CONTINGENT LIABILITIES	411	34.1 IMPACTS OF FINANCIAL INSTRUMENT TRANSACTIONS ON NET INCOME	427
Note 28.	Provisions for back-end nuclear cycle	412	34.2 FAIR VALUE OF DERIVATIVE FINANCIAL INSTRUMENTS	427
28.1	IMPACT OF APPLICATION OF THE LAW OF JUNE 28, 2006 ON PROVISIONS FOR THE BACK-END NUCLEAR CYCLE AND PROVISIONS FOR DECOMMISSIONING AND LAST CORES	412	Note 35. Off-balance sheet commitments 35.1 OFF-BALANCE SHEET COMMITMENTS GIVEN 35.2 OFF-BALANCE SHEET COMMITMENTS RECEIVED	428 428 429
28.2	PROVISIONS FOR BACK-END NUCLEAR CYCLE	413	Note 36. Environment	430
	PROVISIONS FOR DECOMMISSIONING AND LAST CORES SECURE FINANCING OF LONG-TERM OBLIGATIONS	415 416	<ul><li>36.1 GREENHOUSE GAS EMISSION QUOTAS</li><li>36.2 ENERGY SAVINGS CERTIFICATES</li></ul>	430 430
Note 29.	Provisions for employee benefits	418	Note 37. Management compensation	431
29.1	PROVISIONS FOR POST-EMPLOYMENT BENEFITS	418	Note 38. Subsequent events	431
	PROVISIONS FOR OTHER LONG-TERM BENEFITS FOR ACTIVE EMPLOYEES	420	38.1 REFORM OF THE SPECIAL ELECTRICITY  AND GAS SECTOR (IEG) PENSION SYSTEM	431
	ACTUARIAL ASSUMPTIONS CHANGES IN THE DISCOUNTED VALUE OF THE OBLIGATION AND FUND ASSETS	420 421	38.2 EDF BOND ISSUE	432
Note 30.	Provision for renewal of property, plant and equipment operated under concession	422		
Note 31.	Provisions for other expenses	422		
Note 32.	Financial and operating liabilities	423		
Note 33.	Financial liabilities	424		
33.1	CHANGES IN FINANCIAL LIABILITIES BEFORE SWAPS	424		
33.2	BREAKDOWN OF LOANS BY CURRENCY, BEFORE AND AFTER SWAPS	425		
33.3	BREAKDOWN OF LOANS BY TYPE OF INTEREST RATE BEFORE AND AFTER SWAPS	425		

#### Financial statements



#### **Income statements**

(in millions of euros)	Notes	20	07	2006	
Sales of goods (1)		20	21,929	2000	20,714
Sales of services (2)			11,709		12,177
Sales	3		33,638		32,891
Change in inventories and work in process			123		173
Capitalized production			276		962
Operating subsidies	4		2,002		1,466
. 9	5		<u> </u>		,
Reversals of provisions, amortization and depreciation	5		3,825		3,267
Transfers of charges			86		116
Other operating income	6		535		722
I Total operating income			40,485		39,597
Purchases and other external expenses	7		24,473		18,465
Fuel purchases used – power generation		2,671		2,489	
Energy purchases		5,567		5,493	
Other purchases used		947		1,600	
Services		15,288		8,884	
Taxes other than income taxes	8		2,168		2,450
Based on salaries and wages		98		161	
Energy-related		669		665	
Other		1,401		1,624	
Personnel expenses	9		4,677		6,698
Salaries and wages		2,940		4,278	•
Social contributions		1,737		2,420	
Depreciation, amortization and provisions		.,	3,899	_,	6,350
Depreciation and amortization on fixed assets	11	1,722	3,033	3,123	5,550
Provisions for depreciation on fixed assets	12	63		57	
Provisions for depreciation on current assets	12	92		115	
Provisions for risks and expenses	12	2,022		3,055	
Other operating expenses	10	2,022	817	3,055	1 171
	10				1,171
II Total operating expenses			36,034		35,133
Operating profit (I - II)			4,451		4,465
JOINT OPERATIONS					
III Profit assigned or loss transferred			27		3
IV Loss charged or profit transferred			3		6
FINANCIAL INCOME					
Income from investments			661		616
Income from other securities and receivables related to fixed assets	i		599		518
Interest and similar income			517		333
Reversals of provisions and transfers of charges			1,824		2,073
Foreign exchange gains			854		283
Net income on sales of marketable securities			172		44
V Total financial income			4,627		3,867
Financial amortization and provisions			2,351		2,198
Interest and similar expenses			1,129		877
Foreign exchange losses			916		266
Net charges on sales of marketable securities			12		1
VI Total financial expenses			4,408		3,342
Financial result (V - VI)	13		219		525
Profit or loss before income taxes and exceptional items (I - I			4,694		4,986
	+     -  V + V - V				2,616
Exceptional income on capital transactions			5,116		2,010
Reversals of depreciation, amortization and provisions			1,128		510
and transfers of charges			6.244		2.426
VII Total exceptional income			6,244		3,126
Exceptional charges on capital transactions:			4,572		540
- Book values of real estate and financial assets sold		4,572		540	
Exceptional depreciation, amortization and provisions:			597		340
- Allocation to tax regulated reserves		213		190	
- Depreciation, amortization and other provisions		384		150	
VIII Total exceptional expenses			5,169		880
Exceptional result (VII-VIII)	14		1,075		2,246
IX Income taxes	15		835		1,176
Total income (I + III + V + VII)			51,383		46,592
Total expenses (II + IV + VI + VIII + IX)			46,449		40,537
NET PROFIT			4,934		6,055

<sup>(1)</sup> Production of goods for export in 2007: €3,639 million. (2) Production of services for export in 2007: €203 million.

### **Balance sheets**

			December 31. 2007	December 31. 2006	
ASSETS (in millions of euros)	Notes	Gross values	Depreciation or provisions	Net values	Net values
Intangible assets	16.17	659	213	446	971
Property, plant and equipment owned by EDF	16.17				
Lands		135	10	125	219
Buildings		8,855	5,594	3,261	3,980
Technical installations, plant and machinery,		F2.06F	25 620	10.245	20.020
equipment and fixtures		53,965	35,620	18,345	20,829
Other tangible assets		968	682	286	362
Subtotal		63,923	41,906	22,017	25,389
Property, plant and equipment operated under	concession: 16.17				
Lands		36		36	50
Buildings		8,358	4,964	3,394	3,699
Technical installations, plant and machinery, equipment and fixtures		2,640	1,348	1,292	34,391
Other tangible assets		12	11	1	5
Subtotal		11,046	6,323	4,723	38,146
Tangible assets in progress:	16				·
Work in progress		2,148		2,148	2,258
Advances		401	-	401	208
Subtotal		2,549		2,549	2,466
Intangible assets in progress	16	332	-	332	142
Investments:	18-21				
Investments and related receivables		30,470	461	30,009	27,119
Investment securities		8,201	185	8,016	6,246
Loans and other financial assets		10,663	21	10,642	9,286
Subtotal		49,334	667	48,667	42,650
TOTAL I FIXED ASSETS	(I)	127,843	49,109	78,734	109,765
Inventories, including work in process	20				
Raw materials		6,504	11	6,493	5,314
Other supplies		566	131	435	473
Work in process and other		33	16	17	22
Subtotal: inventories and work in proce	SS	7,103	158	6,945	5,809
Advances on orders	21	412		412	333
Trade receivables	21				
Trade receivables and related accounts		10,418	145	10,273	9,106
Other receivables		3,132	11	3,121	2,333
Subtotal: trade receivables		13,550	156	13,394	11,439
Marketable securities	22-23	8,461	5	8,456	10,752
Cash instruments	21	59		59	60
Cash and cash equivalents	23	913		913	333
Prepaid expenses	21	454		454	467
Subtotal: other current assets		9,887	5	9,882	11,612
TOTAL II CURRENT ASSETS	(II)	30,952	319	30,633	29,193
Deferred charges	(III)	13		13	16
Bond redemption premiums	(IV)	85	51	34	39
Unrealized foreign exchange losses	<b>(V)</b> 24	35		35	4
TOTAL ASSETS (I + II +	III + IV + V)	158,928	49,479	109,449	139,017

#### Financial statements



<b>EQUITY AND LIABILITIES</b> (in millions of euros)	Notes	December 31, 2007	December 31, 2006
Capital		911	911
Capital-related premiums			
Share issue premium		6,110	6,110
Merger premium		25	25
Revaluation surplus:			
Special reserves- Law of December 28, 1959		631	631
Tax-regulated reserves - Law of December 29, 1976		17	27
Other reserves		-	-
Tax-regulated reserves			
Legal reserves		91	91
Special reserves			-
Retained earnings		4,232	290
Profit or loss for the financial year		4,934	6,055
Interim dividend		(1,057)	.,
Investment subsidies		47	84
Tax-regulated provisions:			
Provisions related to depreciable fixed assets (Law of December	30, 1977)	20	26
Additional depreciation recognised for tax purposes	, ,	7,177	7,903
Sub total Equity	25	23,138	22,155
Special concession accounts	26	2,049	26,208
TOTAL I EQUITY AND CONCESSION ACCOUNTS (I)		25,187	48,363
Provisions for risks	27	366	464
Provisions for expenses:		500	
Renewal of facilities operated under concession	30	197	10,695
Back-end nuclear cycle	28	16,660	14.602
Decommissioning and last cores	28	12,095	12,315
Employee benefits	29	9,679	11,125
Other expenses	31	1,724	1,980
TOTAL II PROVISIONS FOR RISKS AND EXPENSES (II)	31	40,721	51,181
Financial liabilities:	32.33	40,721	51,101
Bonds	32.33	3,727	3,733
Loans and debts payable to Credit institutions		-	659
Other borrowings		11,147	7,525
Sub total Bonds and borrowings (1)		14,874	11,917
Advances received on consumption		152	146
Other debts		808	854
Sub total financial liabilities (2)		15,834	12,917
Advances and payments on account received	32	3,330	3,250
Operating, investment and other liabilities	32	3,330	3,230
Trade payables and related accounts	JL	7.035	4,885
Tax and social security debts payable		4,364	5,177
Debts related to fixed assets and related accounts		859	434
Other liabilities		8,019	8,589
Sub total operating, investment and other liabilities		20,277	19,085
Cash instruments	32	20,277	297
Deferred income	32	3,712	3,787
TOTAL III LIABILITIES (3) (III)	32	43,382	39.337
Unrealized foreign exchange gains (IV)	24	<b>43,362</b> 159	137
TOTAL FOLLTY AND LIABILITIES (L. H. H. W. AV)		109.449	139,017
TOTAL EQUITY AND LIABILITIES (I + II + III + IV)		109,449	159,017

<sup>(1) €11,416</sup> million in Euros and €3,458 million in other currencies. (2) Including €11 million of bank overdrafts. (3) Including €11,295 million of debts due in more than one year.

#### **Cash flow statements**

(in millions of euros)		2007	2006
Operating activities:			
Profit / (loss) before income tax		5,769	7,232
Amortization, depreciation and provisions		260	3,172
Capital (gains) / losses		(441)	(2,039)
Financial (income) and expenses		(795)	(604)
Changes in working capital		(381)	1,093
Cash flows from operations		4,412	8,853
Net financial expenses, including dividends		653	642
Income taxes paid		(1,392)	(918)
Payment related to dismantling of the Marcoule site		-	(551)
Net cash flow from operating activities	(A)	3,673	8,026
Investing activities:			
Purchases of property, plant and equipment and intangible assets		(2,103)	(3,233)
Sales of investments		233	129
Changes in financial assets		2,386	(8,618)
Net cash flows used in investing activities	(B)	516	(11,722)
Financing activities:			
Issuance of borrowings and underwriting agreements		4,869	2,291
Repayment of borrowings		(4,735)	(1,634)
Dividends paid		(3,171)	(1,439)
Increase in special concession accounts		12	201
Investment subsidies		3	30
Net cash flows from financing activities	(C)	(3,022)	(551)
Net increase / (decrease) in cash and cash equivalents	(A) + (B) + (C)	1,167	(4,246)
Cash and cash equivalents - opening balance *		(417)	3,838
Effect of currency fluctuations		1	(18)
Cash transferred to ERDF		(1,491)	-
Financial income on cash and cash equivalents		(67)	9
CASH AND CASH EQUIVALENTS - CLOSING BALANCE *		(807)	(417)

<sup>\* &</sup>quot;Cash and cash equivalents – opening balance" and "Cash and cash equivalents – closing balance" do not include investment funds, negotiable debt instruments maturing in more than three months, or net cash contributed by subsidiaries under cash management agreements.

Details of the variation in cash and cash equivalents are presented in note 23.

## Notes to the financial statements

### Note Accounting principles and methods

1

Accoun	iting principles and inclinus	
	<b>1.1</b> Accounting policies	P.380
	1.2 Change of accounting method	P.381
•	1.3 Management estimates	P.381
	<b>1.4</b> Sales	P.381
	1.5 Intangible assets	P.381
	<b>1.6</b> Property, plant and equipment	P.382
	1.7 Long-term asset impairment	P.383
	<b>1.8</b> Financial assets	P.384
	1.9 Inventories and work-in-process	P.384
	<b>1.10</b> Accounts receivable and marketable securities	P.385
	<b>1.11</b> Deferred charges	P.385
	<b>1.12</b> Translation of receivables and payables in foreign currencies	P.386
	1.13 Tax regulated provisions	P.386
	<b>1.14</b> Special concession accounts	P.386
	<b>1.15</b> Provisions for risks and expenses	P.387
	<b>1.16</b> Provisions and obligations for employee benefits	P.388
	<b>1.17</b> Financial instruments hedging interest rate and exchange rate risks	P.388
	<b>1.18</b> Treasury shares	P.389
	1.19 Free shares	P.389

# **1.1** Accounting policies

Electricité de France's (EDF's) corporate financial statements are prepared in accordance with the accounting principles and methods defined by the French national chart of accounts, as presented by CRC (French

Accounting Regulation Committee) regulation 99-03 of April 29, 1999 with additions in subsequent regulations.

## 1.2 Change of accounting method

In accordance with the Emergency Committee opinion 2007C of June 15, 2007, EDF opted from January 1, 2007 to include transfer duties, fees and commissions and legal fees related to acquisitions of shares and investments capitalized during the year in the cost of acquisition of the

asset. The shares concerned are governed by article 39.1.5 of the French Tax Code.

Tax-regulated amortization of acquisition costs is recorded in an excess depreciation account. This change of method is prospective.

# 1.3

#### **Management estimates**

The preparation of its financial statements requires the Company to make its best estimates and use assumptions that affect the book value of assets and liabilities, information on contingent assets and liabilities, and

the book value of income and expenses recorded during the period. The figures in future financial statements may differ from current estimates due to changes in these assumptions or economic conditions.

# 1.4

#### Sales

Sales essentially comprise income from the sale of energy and services, which mainly include delivery through the energy distribution network.

EDF accounts for sales when:

- A contract exists;
- Delivery has taken place (or the service provided);
- A quantifiable price has been established or can be determined;
- And the receivables are likely to be recovered.

Delivery takes place when the risks and benefits associated with ownership are transferred to the buyer. The quantities of energy delivered but not yet measured nor billed are calculated based on the quantities used by the sites of the EDF balance responsible entities and the quantities billed, after losses measured by a statistical method presented to the *Commission de Régulation de l'Energie* (CRE), the French Energy Regulator.

Sales of goods and revenues on services not completed at the balance sheet date are valued by reference to the stage of completion at that date.

Sales of energy to EDF Trading, the Group's trading company, are recorded at their contractually stipulated amount.

### 1 5

#### **Intangible assets**

Intangible assets mainly consist of software, concession rights, licenses, trademarks and similar rights, operating rights, development costs, storage capacity reservation costs, network map digitization expenses and greenhouse gas emission quotas.

Development costs are recognized as an intangible asset if EDF can demonstrate:

- The technical feasibility of making the intangible asset ready for commissioning or sale;
- Its intention to complete the intangible asset and use or sell it;

- Its ability to use or sell the intangible asset;
- $\bullet$  How the intangible asset will generate likely future economic benefits;
- The availability of the appropriate resources (technical, financial or other) to complete development and use or sell the intangible asset;
- Its ability to provide a reliable estimate of expenses attributable to the intangible asset during its development.

Research expenses are recognized as expenses in the financial period incurred.

# Financial statements



In application of ordinance 2004-330 of April 14, 2004, on January 1, 2005 the French state attributed to energy operators a fixed quantity of quotas representing one tonne of carbon dioxide equivalent each for three years. In compliance with the CNC (French National Accounting Council) opinion 2004-C issued on March 23, 2004, greenhouse gas emission quotas are recorded as intangible assets at their market value at the date of reg-

istration in the SERINGAS register managed by the *Caisse des Dépôts et Consignations*, with an offsetting entry under "Other liabilities".

Intangible assets other than greenhouse gas emission quotas are amortized on a straight-line basis over their useful lives regardless of whether they are generated in-house or purchased.

# 1.6

#### Property, plant and equipment

Property, plant and equipment are recorded at acquisition or production cost or at their revalued amount where applicable, less accumulated depreciation and provisions:

- Cost corresponds to acquisition or production cost (including external costs as well as costs incurred directly by EDF);
- The revaluations were performed in accordance with French legislation (Law of December 28, 1959 for fixed assets put into service before January 1, 1960 and specific legislation issued for those put into service before January 1, 1977).

The cost of facilities developed in-house includes all labor and materials costs, and all other production costs attributable to the construction cost of the asset.

Assets associated with provisions:

In applying CRC regulation 2000-06 on liabilities, confirmed by Emergency Committee regulation 2005-H, certain assets have been recognized in connection with provisions for liabilities related to decommissioning of nuclear and fossil-fired power plants and the provision for last cores

At the date of commissioning, these assets are carried in property, plant and equipment, and are measured and recorded in the same way as the corresponding provision.

They are depreciated in the same way and over the same useful life as the relevant facility.

The asset ceases to be recognized when the associated facility has been totally depreciated.

Pre-operating expenses and borrowing costs incurred to finance installations are recognized as expenses.

EDF's property, plant and equipment comprise both assets owned by EDF and assets operated under concession.

# **1.6.1** Property, plant and equipment owned by EDF

Most of the property, plant and equipment owned by EDF concerns nuclear facilities.

The following components are included in the balance sheet value of nuclear power plants currently in service:

- The discounted cost of decommissioning the facilities;
- The discounted cost of last core nuclear fuel, including depreciation of residual reactor fuel that will not be fully irradiated when production shuts down, the cost of nuclear fuel reprocessing and the cost of removing and storing waste from these operations.

Strategic safety spare parts for nuclear facilities are treated as property, plant and equipment, and depreciated prorata with the useful life of the facilities to which they are assigned.

Impairment is booked in respect of certain non-nuclear plants temporarily closed down, when it is unlikely that these plants will ever be brought back into service.

# 1.6.2 Property, plant and equipment operated under concession

In France, EDF is the operator for two types of public service concessions:

- Public distribution facilities operated under concession rights licensed by local authorities (municipalities or syndicated municipalities);
- Hydropower concessions with the State as grantor.

#### 1.6.2.1 PUBLIC ELECTRICITY DISTRIBUTION CONCESSIONS

#### - General background

Since the enactment of the French Law of April 8, 1946, EDF has by law been the sole operator for the main public distribution concessions in

The accounting treatment of concessions is based on the concession agreements, with particular reference to their special clauses. It takes into consideration the possibility that EDF may one day lose its status as the sole authorized State concession operator.

There are approximately 1,200 public electricity distribution concession contracts in France, generally covering terms of between 20 and 30 years. 95% of these contracts use standard concession rules based on the 1992 Framework Contract negotiated with the National Federation of Licensing Authorities (*Fédération Nationale des Collectivités Concédantes et Régies* – FNCCR) and approved by the public authorities. This set of rules includes the following main clauses:

- It specifies the purpose and scope of the concession: the licensing authority grants the operator the exclusive right to operate the public electricity distribution service in a given region. The operator is responsible for operating the service and does so at its own risk;
- It establishes the principles with respect to tariffs, namely the equal treatment of users, economic efficiency and geographical equalization;
- It sets forth the payments that must be made by the operator to the grantor:
- It specifies the operator's obligation to record industrial depreciation and establish provisions for renewal, taking into account the cost of replacing installations that must be replaced prior to the end of the concession (article 10). The amounts of these obligations must be reported annually to the grantors (article 32);

- It establishes the practical and financial terms and conditions for renewal of a concession, particularly the requirement that the operator should transfer to the grantor any excess unused provision for renewal (article 31A);
- It establishes the practical and financial terms and conditions in the event of non-renewal or early termination if the service becomes irrelevant (article 31B), i.e.:
  - Return of the concession installations and equipment to the grantor in good operating condition;
  - Payment by the licensing authority of an indemnity equal to the nondepreciated, remeasured value of the installations, proportionate to its contribution to the financing (the purpose being to enable EDF to recover the non-depreciated value of installations it has financed as the operator);
  - Payment by the operator to the grantor of the balance of provisions for renewal of the installations, together with the industrial depreciation established, in an amount proportionate to the grantor's contribution to financing.

#### Recognition of concession assets as property, plant and equipment operated under concession

All concession facilities are included in EDF's balance sheet assets regardless of the origins of their financing. EDF controls them and bears the risk:

- EDF operates the facilities at its own risk throughout the duration of the concession:
- EDF bears the majority of risks and benefits, both technical and economic, over the useful life of the network infrastructure.

These items of property, plant and equipment are stated at cost less accumulated depreciation, and amortized on a straight-line basis over the estimated useful life.

#### 1.6.2.2 HYDROPOWER CONCESSIONS

Assets attributed to the hydropower concessions are hydropower generation equipment (dams, pipes, turbines, etc) and, in the case of recently-renewed concessions, also include electricity generation equipment (alternators, etc).

Article 7 of Law 2006-1772 of December 30, 2006 on water and aquat-

ic environments removed the outgoing operator's preferential right instituted by the law of October 16, 1919.

Article 33 of French Law n°2006-1771 of December 30, 2006, amending the 2006 finance law, sets out the principle of an indemnity for the outgoing operator in respect of the unamortized portion of investments made during the second half of execution of the agreement (the final 10 years at least), with the exception of investments required to return the assets in good condition at the end of the concession. The decree stipulating how this principle should be applied had not yet been published at December 31, 2007.

The concession assets are recorded under Property, plant and equipment operated under concession, at acquisition cost. Depreciation is calculated over their useful life, which is generally identical to the term of the concession.

#### 1.6.3 Depreciation

Property, plant and equipment are depreciated on a straight-line basis.

The estimated useful lives for the principal facilities are the following:

Hydroelectric dams	75 years
Electromechanical equipment used in hydropower plants.	50 years
Fossil-fired power plants	30 to 45 years
Nuclear power plants	40 years
Transmission and distribution installations	
(lines, substations)	20 à 45 years

# **1.7**

#### Long-term asset impairment

At the year-end and at each interim reporting date, EDF assesses whether there is any indication that an asset could have been significantly impaired. If so, an impairment test is carried out as follows:

- EDF measures any long-term asset impairment by comparing the carrying value of these assets, classified into cash-generating units where necessary, and their recoverable amount, usually determined using the discounted future cash flow method;
- The discount rates used for these purposes are based on the weighted average cost of capital for each asset or group of assets concerned;
- Future cash flows are based on medium-term plan projections.

This impairment test is based on business plans and assumptions approved by the management.

As these assessments are highly sensitive to macro-economic and segment assumptions, the impairment test used is updated if an indication of impairment is observed.



#### **Financial assets**

#### 1.8.1 Investments

Investments are carried at acquisition cost, except for certain investments acquired before January 1, 1977 which were revalued, replacing the original cost by the fair value at the end of 1976 if the fair value was higher. Gains or losses on disposals of investments are calculated based on average weighed cost.

When the book value of investments is higher than their value in use as determined by reference to equity (consolidated equity if relevant) adjusted to take into account expert valuation information, information known since the previous year-end or the market price for listed securities of non-consolidated investments, a provision is generally recorded to cover the difference.

#### 1.8.2 Investment securities

EDF has set up two investment portfolios:

- The first comprises dedicated financial assets intended to finance backend nuclear fuel cycle operations, for which provisions have been accrued. These assets are managed separately from other financial assets and investments in view of their specific objective, and comprise bonds, equities, collective investment funds and "reserved" funds built up by EDF solely for its own use;
- The second comprises securities acquired to generate a satisfactory return on investment in the medium to long term, without participating in the management of the companies concerned.

The investment portfolios (shares and bonds) are recorded at acquisition cost. At year-end, the carrying amount of these portfolios is assessed individually, mainly by consideration of the growth prospects of the companies concerned and their share prices. If the carrying amount is lower than the book value, the unrealized capital loss is fully provisioned without being netted against potential gains.

# 1.9

#### **Inventories and work-in-process**

The initial cost of inventories includes the direct material costs (including the effect of hedging), labor costs and overheads incurred to bring the inventories to their current condition and location. They are subsequently measured at weighted average cost.

#### 1.9.1 Nuclear fuel and materials

Inventories of nuclear fuel and materials comprise fissile materials in various stages of production, and fuel in the reactor and stored. The processing cycle for nuclear fuels is longer than one year.

The stated value of nuclear fuel and materials and work-in-progress is determined based on direct processing costs including materials, labor and subcontracted services (e.g. fluoration, enrichment, etc.).

At December 31, 2007, in keeping with the notion of "loaded fuel" as defined in the decision of March 21, 2007, in France, the cost of inventories for fuel in reactors but not yet irradiated includes expenses for management of spent fuel and long-term radioactive waste management. The corresponding amounts are taken into account in the relevant provisions.

Interest expenses incurred in financing inventories of nuclear fuels are charged to expenses for the period.

Nuclear materials, whatever their form during the processing cycle, whose useful lives are longer than one year, and nuclear fuel, whether in the reactors or stored, are recorded in inventories.

These items are valued using the weighted average cost method, applied to each component (natural uranium, fluoration, enrichment, production)

EDF does not value the uranium obtained from reprocessed fuel, due to uncertainty over its future use.

Nuclear fuel consumption is determined for each component based on forecasts of quantities used per kWh produced. These quantities are valued at weighted average cost of inventories.

Inventories are periodically corrected in view of forecast burnt quantities based on neutronic measurements.

#### 1.9.2 Operating materials and equipment

These inventories are measured at weighted average cost. Direct and indirect purchasing costs are included in the initial cost.

Provisions concerning spare parts supplied under a maintenance program are based on the turnover of these parts and the useful lives of generation units.

Safety spare parts used for nuclear power plants that require specific delivery times, production specifications and utilization are included in property, plant and equipment.

#### 1.9.3 Gas held for trading

These inventories are measured at weighted average cost, including direct and indirect purchasing costs, principally transportation costs.

Impairment of these inventories is determined based on the net realizable value, i.e. the future sale price.

# 1.10

#### Accounts receivable and marketable securities

#### 1.10.1 Trade receivables

Trade receivables are stated at nominal value.

Trade and other receivables also include revenue based on an estimate of energy delivered and measured but not yet billed, and energy delivered and not yet measured or billed.

Technical losses are estimated according to a statistical method developed by EDF and submitted to the CRE. The quantities of energy delivered to EDF customers and not yet measured or billed at the period-end are calculated based on the quantities used by the EDF balance responsible sites, less the quantities billed and losses.

The portion of energy not yet measured or billed is calculated on the average price determined by reference to the energy billed for the previous month. The measurement of the distribution by meter is based on the average price, calculated using the distribution billed during the previous month.

For business customers who have changed their supplier, the company measures the distribution by meter by applying the average billing price for the previous month to the quantities not measured or billed, calculated using the same methods as those used for EDF customers.

A provision is recorded to cover the future cost of energy not yet measured or billed, as well as the potential risk of subsequent non-recovery.

A provision is recorded when the carrying amount, based on the probability of recovery, assessed statistically or on a case-by-case basis depending on the type of receivable, is lower than book value. The risk associated with doubtful receivables is evaluated individually.

#### 1.10.2 Marketable securities

Marketable securities are initially recorded as assets at acquisition cost, and restated at their value in use at year-end. Listed securities are stated at their year-end quotation. A provision is recorded to fully cover any unrealized losses, without netting against unrealized gains.

# 1.11

#### **Deferred charges**

Bond redemption premiums are amortized on a straight-line basis over the term of the related bond (or each tranche of the bond to maturity in the case of serial bonds). Commissions and external costs paid by EDF upon issuance of borrowings are spread on a straight-line basis linearly over the term of the related instruments.

#### Translation of receivables and payables in foreign currencies

Foreign currency receivables and payables are translated into euros at the year-end exchange rates. The resulting translation differences are recorded in the balance sheet in other receivables and other liabilities under "Unrealized foreign exchange gains" and "Unrealized foreign exchange losses".

Provisions are recorded for all unrealized exchange losses on foreign currency borrowings not hedged for exchange risks. Unrealized gains are not included in the income statement.

Translation differences with respect to swaps hedging foreign currency borrowings are recorded under "Unrealized foreign exchange gains" and "Unrealized foreign exchange losses" as an offsetting entry to "Cash Instruments"

# 1.13

#### Tax regulated provisions

The following items are recorded under this heading:

- Excess depreciation on generation, transmission and distribution facilities computed using the declining-balance method;
- Accelerated depreciation on the chimney sulfur removal facilities of fossilfired plants;
- Excess depreciation on software developed in-house by the company.

# 1.14

#### **Special concession accounts**

These liabilities relate mostly to public electricity distribution concessions and hydropower concessions.

#### Special public distribution concession liabilities

These liabilities represent the contractual obligations specific to the concession rules, as reported annually to the grantor:

- Rights in existing assets: these correspond to the grantor's right to recover all assets for nil consideration. This right comprises the value in kind of the facilities – the net book value of assets operated under concession – less any as yet unamortized financing provided by the operator:
- Rights in assets to be replaced: these correspond to the operator's obligation to contribute to the financing of assets due for replacement. These non-financial liabilities are recorded under the following headings:
- Depreciation recorded on the portion of assets financed by the grantor;
- Provision for renewal based on the difference between the replacement value at year-end and the historical value of the assets, concern-

ing only assets due for renewal before the end of the concession; the annual allocations to the provision correspond to the difference between the replacement value as remeasured at each year-end, and the historical value, less any existing provisions. The net amount is spread over the residual useful life of the assets. Consequently, the expenses recognized increase over time.

When assets are replaced, the provision and amortization of the grantor's financing recorded in respect of the replaced item are eliminated and transferred to the rights in existing assets, since they are considered as the grantor's financing for the new asset. Any excess provision is taken to income

During the concession, the grantor's rights in assets to be replaced are thus transferred upon the asset's renewal to become the grantor's rights in existing assets, with no outflow of cash to the benefit of the grantor.

The valuation of concession liabilities is subject to uncertainty in terms of cost and disbursement dates.

#### **Provisions for risks and expenses**

EDF recognizes provisions for risks and expenses if the following three conditions are met:

- EDF has a present obligation (legal or constructive) towards a third party that arises from a past event prior to the closing date;
- It is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- The value of the obligation can be estimated reliably.

Provisions are determined based on EDF's estimate of the expected cost necessary to settle the obligation. Estimates are based on management data from the information system, assumptions adopted by EDF, and if necessary experience of similar transactions, or in some cases based on independent expert reports or contractor quotes. The various assumptions are reviewed for each closing of the accounts.

The company records any changes in estimates on long-term provisions as required by CRC regulation 2000-06 and Emergency Committee regulation 2005-H.

The proceeds from expected asset disposals are not taken into account in calculating provisions, even if these disposals are closely linked to events which gave rise to the provisions.

If it is anticipated that all or part of the expenses necessary to settle an obligation covered by a provision will be reimbursed, the reimbursement is recognized under receivables if and only if the company is virtually certain of receiving it.

It may very rarely happen that a provision cannot be booked due to lack of a reliable estimate. In such cases, the obligation is mentioned in the notes as a contingent liability, unless there is little likelihood of an outflow of resources. Contingent assets and liabilities are not recorded.

The provisions for risks and expenses mainly cover the following:

- Unrealized foreign exchange losses;
- Future losses relating to multi-year agreements for the purchase and sale of electricity or gas:
  - Losses on energy purchase agreements are measured by comparing the acquisition cost under the contractual terms with the forecast price of electricity on the European market;
  - Losses on electricity sale agreements are measured by comparing the estimated income under the contractual terms with the cost of generating the energy to be supplied, based on the cost of nuclear power;
  - Losses on gas sale agreements are measured by comparing the estimated income under the contractual terms with the supply costs.

• Costs of renewal of facilities operated under distribution concessions: This provision, which is intended to finance the renewal of installations, is equal to the difference between the replacement value and gross value of the items concerned.

It is recorded over the useful life of the assets, in addition to industrial depreciation, to cover prefinancing of renewal.

The replacement value is recalculated annually at December 31 based on industry-specific indicators derived from official publications. The resulting impact is spread over the residual life of the assets concerned.

- Back-end nuclear cycle expenses: provisions for spent fuel management and for the long-term radioactive waste management are booked for all fuels currently in use (burnt portion) or already used.
- In France, the law requires provisions to be established to cover all fuel in reactors, whether or not it has been irradiated. The expenses related to long-term management of radioactive waste resulting from decommissioning of nuclear plants must also be covered by these provisions;
- Costs of decommissioning power plants and the costs relating to fuel in the reactor when the reactor is shut down (provision for last cores);
- Costs of 10-year inspections of nuclear and fossil-fired power plants.

Provisions to cover back-end nuclear fuel expenses, expenses related to the decommissioning of power plants and last cores, and for future losses relating to multi-year energy purchase and sale agreements are estimated by applying a forecast long-term inflation index to the projected disbursements, which are then discounted at rates that reflect the best estimate of a long-term rate of return on bond markets.

The rate of inflation and the discount rate are based on economic parameters specific to France.

EDF uses a discount rate of 5%, and a long-term inflation rate of 2%, which represents an effective rate of 3%. This discount rate is determined based on long series data for a sample of bonds, and takes into account the fact that some expenses covered by provisions will be disbursed over periods significantly longer than the duration of instruments generally traded on the financial markets.

The discount effect generated at each year-end to reflect the passage of time is included in financial expenses.

The impact of changes in estimates for long-term provisions with associated balance sheet assets, whether due to schedule changes, discount rate changes, new expense estimates or technological developments, is allocated to the relevant assets, with any excess allocated to the underlying asset (power plant). Each one of these parameters, taken singly or together, could have a considerable impact on the estimates over time.



#### Provisions and obligations for employee benefits

EDF employees are entitled to benefits both during and after their employment, in application of the statutory regulations for companies belonging to the electricity and gas sector (IEG) in France.

# **1.16.1** Pension and post-employment benefit obligations

EDF's pension and post-employment obligations resulting from the financing reform for the special electricity and gas sector (IEG) pension system are described individually in note 29.

#### 1.16.2 Other long-term benefit obligations

These benefits concern EDF employees currently in service who are covered by the IEG regime, and are earned according to the statutory regulations for the electricity and gas sector. Details are provided in note 29.

# 1.16.3 Calculation and recognition of employee benefits

In application of the CNC Emergency Committee opinion 2000-A issued on July 6, 2000 and article 335.1 of the General Chart of Accounts, EDF opted for recognition of post-employment benefits granted to personnel as of January 1, 2005.

The actuarial value of all commitments is calculated by the projected unit credit method, which determines the present value of entitlements earned by employees at year-end to pensions, post-employment benefits and long-term benefits, taking economic conditions and expected wage increases into consideration.

In calculating pensions and other post-employment benefit obligations, this method takes the following factors into consideration, in compliance with CNC recommendation 2003-R01:

• Career-end salary levels, with reference to employee seniority, projected salary levels at the time of retirement based on the expected effects of career advancement, and estimated trends in pension levels;

- Retirement age, determined on the basis of relevant factors (such as years of service and number of children);
- Forecast numbers of pensioners, determined based on employee turnover rates and mortality data;
- Reversion pensions, taking into account both the life expectancy of the employee and his/her spouse and the marriage rate observed for the population of employees in the electricity and gas sector;
- A nominal discount rate, depending on the duration of the obligations. In keeping with the provisions booked in the EDF group's consolidated financial statements, the rate applied was 5% at January 1, 2004.

The provision takes into account the value of the assets that cover certain obligations, which are deducted from the value of the obligation as determined above.

In accordance with the applicable accounting regulations:

- Any actuarial gains or losses on pensions and post-employment benefit obligations in excess of 10% (the "corridor") of the obligations or fund assets, whichever is the higher, are recognized in the income statement progressively over the average residual working life of the company's employees;
- The provision for other long-term benefits is calculated under a simplified method. Therefore, if an actuarial estimation under the projected unit credit method is necessary, any actuarial variances and the past service cost are directly included in the provision, without application of the "corridor" rule.

The expense booked for employee benefit obligations includes:

- The cost of additional vested benefits, and the financial discount cost on existing benefits;
- The income corresponding to the expected return on plan assets;
- The income or expenses resulting from amortization of actuarial gains or losses.

Entitlements earned during the year are added to the provision and discounting costs are included in financial expenses.

# 1.17

# Financial instruments hedging interest rate and exchange rate risks

#### 1.17.1 Short-term derivatives

Short-term derivatives (short-term swaps, options and forward exchange contracts) are valued as follows:

- The corresponding off-balance sheet commitments are recorded at the nominal value of the contracts;
- Margin payments are immediately recognized in the income statement;
- Premiums paid or received are recognized in income at settlement;
- Gains or losses generated by these instruments are recognized at settlement:
- Short-term currency derivatives traded on organized markets or highly liquid over-the-counter markets comparable to organized markets and included in the portfolios at year-end are stated at year-end market value. This value is compared for each transaction to the historical value of premiums. As the company does not allocate individual gains and losses on micro-hedges to the associated transactions, the unrealized foreign exchange gains or losses are included in the financial result at market value.

Initial deposits to secure transactions are included in "Investments". As part of group activities, EDF grants short-term loans in foreign currencies to its subsidiaries. In order to limit the group's exposure to exchange rate risks, micro-hedges are set up by issuing commercial paper in the relevant foreign currency or by setting up short-term interest rate swaps. If the exchange rate risk is totally hedged, no provision is recorded for either the loan or the hedging instrument. If the hedge is not effective, provisions are recorded to cover the entire amount of the unhedged foreign exchange losses.

1.17.2 Long-term instruments

One of the main objectives of exchange rate and interest rate risk management is to minimize their impact on equity and net income. For exchange rate risks, debts are as far as possible entered into in the local currency of the entity (parent company or subsidiary). If an acquisition is made in a different currency, an effective hedging policy (matching assets and liabilities) is set up wherever possible (micro-hedging).

Long-term instruments (swaps) are taken into account to adjust the foreign exchange result and interest expenses on a debt. If the exchange rate risk is totally hedged, no provision is recorded for either the loan or the borrowing. If the risk is only partly hedged, a provision equivalent to the total unhedged unrealized exchange loss is recorded. Provisions are recorded to cover all unrealized foreign exchange losses on swaps that are not designated as a hedge or do not qualify as a micro hedge (for instance a currency swap associated with a borrowing).

In general, payments made and received on financial instruments are spread over the term of the contract. Payments made or received in the event of early settlement are immediately included in the income statement.

All of these instruments are recorded in the financial off-balance sheet commitments at the notional value of the capital committed and at fair value

# 1.18 Treasury shares

Treasury shares are shares in EDF purchased and held by the company.

In application of CNCC opinion 98-D of December 17, 1998, treasury shares are classified as follows for accounting purposes:

- Treasury shares acquired to cover obligations relating to debt instruments providing access to the company's capital, acquired under a liquidity contract with an investment services company, or acquired through an external growth operation or capital reduction are classified as other financial assets;
- Treasury shares acquired for attribution to employees are classified as marketable securities.

Provisions are recorded when the market price for EDF shares is lower than the book value of the shares held.

These shares are recorded at acquisition cost. In compliance with CRC regulation 99-03 and CNC Emergency Committee opinion 2005-J of december 6, 2005, transfer duties, professional fees, commission, legal expenses and purchasing costs are all charged to expenses, under the option used for other investments and non-consolidated investments.

# 1.19 Free shares

For the attribution of free shares to employees, a provision is established in respect of the obligation to deliver the shares. The value of the provision is based on:

- Estimates of the number of shares to be remitted to employees;
- The acquisition price of shares already acquired, less any impairment of those shares;
- The market price of shares still to be acquired or the forward price plus the premium paid if the company has acquired purchase options for treasury shares.

This provision is remeasured at each year-end prior to delivery of the shares, and is reversed when the shares are remitted to employees.



# Note 7

# Significant events and transactions of 2007 with an impact on the financial statements

on the	inductat statements	
	<b>2.1</b> Transfer of the electricity distribution activity to a subsidiary	P.390
	<b>2.2</b> Implementing provisions for french law 2006-739 of June 28, 2006 on sustainable management of radioactive materials and waste	P.391
	2.3 Free share plan for group employees	P.391
	2.4 Interim dividend	P.392

2.5 Changes in EDF's capital and a new employee offering

# 2.1 Transfer of the electricity distribution activity to a subsidiary

In application of law 2006-1537 of December 7, 2006 on the energy sector, EDF proceeded to the legal separation of its Distribution activity covering mainland France. To this end, it signed a partial business transfer agreement (governed by the French laws on demergers) on June 25, 2007 with C6, a company owned 99.99% by EDF. This company has now been renamed *Electricité Réseau Distribution France* (ERDF) after modification of its by-laws. An amendment to the agreement was signed on November 7, 2007.

The business transfer was approved by the shareholders of EDF at an extraordinary meeting on December 20, 2007 and the shareholders of C6 at the shareholders' meeting on December 21, 2007.

The transfer took place on December 31, 2007, with retroactive effect to January 1, 2007 for accounting purposes.

Under the terms of the agreement, EDF transferred to C6 all its assets, licenses, rights and obligations related to EDF's activity as manager of the electricity distribution network in mainland France, as defined by article 210 B of the French tax code.

In accordance with CRC opinion 2004-01, the transfer took place at net book value, and the net value of assets contributed was €2,700 milllion at January 1, 2007.

P.392

Details of the assets transferred at January 1, 2007 are as follows:

(in millions of euros)	Net value
Intangible assets	171
Property, plant and equipment owned by EDF	3,191
Property, plant and equipment operated under concession	33,309
Fixed assets in progress	617
Investments	10
Total I fixed assets	37,298
Inventories and work in process	32
Trade receivables	3,381
Cash and cash equivalents	1,491
Prepaid expenses	7
Total II current assets	4,911
TOTAL ASSETS TRANSFERRED	42,209

Details of the liabilities transferred at January 1, 2007 are as follows:

(in millions of euros)	Value
Special concession accounts	24,139
Total I special concession accounts	24,139
Provisions for risks	28
Provisions for expenses	12,284
- Renewal of assets operated under concession	10,501
- Employee benefits	1,232
- Other expenses	551
Total II provisions for risks and expenses	12,312
Financial liabilities	
- Bonds	
- Loans and debts payable to financial institutions	-
- Other borrowings	271
- Advances received on consumption -	-
- Other debts	54
Advances and payments on account received	124
Operating, investment and other liabilities	
- Trade payable	1,817
- Tax and social security debts payable	664
- Debts related to fixed assets	17
- Other liabilities	106
Deferred income	5
Total III liabilities	3,058
TOTAL LIABILITIES TRANSFERRED	39,509
NET ASSETS TRANSFERRED	2,700

In consideration of the net assets transferred by EDF, the Company received 540,000,000 fully paid-up new shares with nominal value of €0.50 in the form of a capital increase.

Under the favorable tax treatment applicable to mergers under article 210 A of the French tax code, EDF withdrew the liabilities related to the assets transferred from its balance sheet. A corresponding amount of €699 million of exceptional income was recognised, representing:

- Exceptional depreciation totaling €648 million;
- Subsidies of €39 million received in connection with assets transferred;
- Special revaluation reserves of €4 million related to depreciation assets (law of December 30, 1977);
- Part of the 1976 revaluation reserves (€8 million).

The impacts of this transfer of the distribution activity on EDF's financial statements are reported when significant in tables contained in the notes to the financial statements:

- Impact on 2006 net income;
- Impact on the balance sheet at January 1, 2007.

# 2.2

# Implementing provisions for french law 2006-739 of June 28, 2006 on sustainable management of radioactive materials and waste

The implementing provisions issued in 2007 comprise decree 2007-243 of February 23, 2007, and the decision of March 21, 2007 on the secure financing of nuclear expenses.

The necessary adaptations involve both changes in presentation and changes in estimates for provisions. Details are given in note 28.

The financial statements at December 31, 2007 incorporate the measures contained in these provisions.

## 2.3

#### Free share plan for group employees

A free share plan (named ACT 2007), potentially concerning close to 3 million shares, was approved at the General Shareholders' Meeting of May 24, 2007. The final conditions for allotment of shares, particularly the list of beneficiaries in the Group companies concerned by this operation and the number of shares to be received by each beneficiary, were defined and approved at the Board of Directors' meeting held on August 30, 2007. The shares will be delivered on August 31, 2009 to employees

who had a contract with the company for the entire vesting period (apart from exceptions as specified in the plan), subject to achievement of performance objectives for the period 2006-2008.

The provision booked totals €233 million, based on the share price at December 31, 2007 (€81.48). The income receivable by EDF from whollyowned subsidiaries amounts to €105 million.

# Financial statements



# 2.4

#### Interim dividend

At the Board of Directors' meeting of November 7, 2007, it was decided to pay interim dividends on November 30, 2007 of €0.58 per share (total distribution: €1,057 million) in respect of 2007.

# 2.5

#### Changes in EDF's capital and a new employee offering

On December 3, 2007, the State sold 2.5% of EDF's capital to French and international institutional investors.

In application of the last paragraph of article 11 of law 86-912 of August 6, 1986 and article 26 of law 2004-803 of August 9, 2004, the

State decided to make a preferential offer for current and retired employees of EDF and certain French and foreign subsidiaries, applicable to a number of existing shares representing 15% of the total number of shares put on the market, i.e. 0.4% of the capital. The schedule and terms of this employee offering remain to be defined for implementation in 2008.

#### Note

#### **Sales**

3



Sales are comprised of:

(in millions of euros)	2006 without transfer of Distribution to a subsidiary <sup>(1)</sup>	2006	
Sales of energy	21,922	20,754	20,708
Sales of energy-related services	10,551	10,303	11,465
Other sales of goods	7	5	6
Other sales of services	1,158	1,345	712
SALES	33,638	32,407	32,891

Sales increased by 3.8% compared to 2006 after adjustment for the transfer of the distribution activity to a subsidiary. They include the increase in regulated tariffs for electricity sales in France effective from August 16, 2007.

<sup>(1)</sup> The distribution activity was transferred to a subsidiary at December 31, 2007, with retroactive effect to January 1, 2007.

Based on an identical scope of consolidation, 2006 sales would have amounted to €32,407, a decrease of €484 million. This change mainly results from the following contrasting effects:

<sup>-</sup> a €1,162 million decrease in sales of energy-related services, primarily resulting from delivery of energy and connection fees invoiced by the distribution activity;

<sup>-</sup> a €633 million increase in other sales of services, mainly related to EDF's invoicing of real estate services, IT services and secondments of employees to the Distribution activity.

#### **Note**

# **Operating subsidies**

4



2007 2006 without transfer of 2006 (in millions of euros)

OPERATING SUBSIDIES

2007 2006 without transfer of 2006
Distribution to a subsidiary

1,466

Operating subsidies mainly comprise the subsidy received or receivable by EDF in respect of the Contribution to the Public Electricity Service (CSPE) introduced by Law 2003-8 of January 3, 2003. This compensation

resulted in recognition of income of €1,993 million in 2007, compared to €1,457 million in 2006.

# Note 5

# Reversals of provisions, amortization and depreciation



(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006
Reversals of provisions for risks	193	104	105
Pensions and similar obligations (1)	1,202	1,345	1,636
Renewal of property, plant and equipment operated under concession	10	3	139
Reprocessing of spent nuclear fuel (2)	668	814	814
Long-term radioactive waste management (3)	535	78	78
Decommissioning of power plants	150	156	156
Last cores	52	8	8
Other provisions for expenses (4)	643	141	169
Reversals of provisions for expenses	3,260	2,545	3,001
Reversal of amortization of grantor's financing	-	-	7
Reversals of impairment	372	133	155
TOTAL	3,825	2,782	3,267

<sup>(1)</sup> Including a €303 million reversal in 2006 following discontinuation of the exceptional additional pension benefit.

<sup>(2)</sup> Including a €220 million reversal in 2006 following changes in assumptions regarding fuel reprocessing.

<sup>(3)</sup> Including a €394 million reversal in 2007 following application of the new definition of the operating cycle provided by the law of June 28, 2006 (see note 28.1).

<sup>(4)</sup> Including a €470 million reversal in 2007 from the provision for the transition tariff (TARTAM, tarif réglementé transitoire d'ajustement de marché).

# Financial statements



# Note

## Other operating income

6



(in millions of euros)	2007	2007 2006 without transfer of 2006 Distribution to a subsidiary		
OTHER REVENUES	535	942	722	

In application of the CNC Emergency Committee opinion 2004-C of March 23, 2004, other revenues mainly consist of reversals of the greenhouse gas emission quotas allocated for the previous year.

The  $\in$ 516 million decrease in reversals of quotas is due to the fall in quota prices.

#### Note

## Purchases and other external expenses

7



(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary <sup>(2)</sup>	2006
Fuel purchases used	2,671	2,489	2,489
Energy purchases (1)	5,567	4,544	5,493
Other purchases used	947	999	1,600
Services	15,288	14,676	8,884
PURCHASES AND OTHER EXTERNAL EXPENSES	24,473	22,708	18,465

(1) In 2007, the increase in energy purchases mainly concerns electricity purchases from EDF Trading, gas purchases and purchase obligations.

# Note

#### Taxes other than income taxes

8



(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary <sup>(1)</sup>	2006
Taxes on salaries and wages	98	109	161
Energy-related taxes (2)	669	342	665
Business taxes	882	855	1,046
Property taxes	252	251	269
Other taxes	267	274	308
TAXES OTHER THAN INCOME TAXES	2,168	1,831	2,450

<sup>(1)</sup> Decrease in the FACE (sinking fund for electrification charges) taxes for public distribution in mainland France (€(315) million for 2006).

<sup>(2)</sup> The transfer of the distribution activity has led to a decline in energy purchases, corresponding to purchases borne directly by the distribution activity, and a rise in purchases of services: access fees for the transmission network, borne by the distribution activity, are no longer recorded in EDF's accounts, but access fees for the distribution network are now invoiced by ERDF and are classified as an external expense.

<sup>(2)</sup> Under the law of June 28, 2006 on sustainable management of radioactive materials and waste, EDF paid additional tax of €102 million in 2007 for regulated nuclear installations (installations nucléaires de base), with no equivalent in 2006.

With the introduction of a transition tariff (TARTAM), a contribution of €221 million was booked in 2007.

#### Note

# **Personnel expenses**



#### Personnel expenses

	2007	2006 without transfer of	2006
(in millions of euros)		Distribution to a subsidiary	
Salaries and wages	2,940	2,897	4,278
Social contributions	1,737	1,727	2,420
PERSONNEL EXPENSES	4,677	4,625	6,698

#### Average workforce

		2007		2006
	IEG status	Other	Total	Total
Executives	20,083	199	20,282	23,743
Operational, supervisory and technical staff	38,172	324	38,496	73,113
AVERAGE WORKFORCE	58,255	523	58,778	96,856

Average workforce numbers are reported on a full-time equivalent basis. The decline in the workforce mainly results from the transfer of the distribution activity to a subsidiary.

# **Note**

# Other operating expenses

	• • • •
	· ·

(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006
Greenhouse gas emissions (1)	64	493	493
Other operating expenses	753	532	678
TOTAL	817	1,025	1,171

<sup>(1)</sup> The lower level of expenses for the greenhouse gas emissions results from the decrease in the price of emission quotas.

### **Financial** statements



## **Note** 11

## **Depreciation and amortization**

(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006
Amortization of intangible assets	75	63	111
Depreciation on property, plant and equipment:			
- owned by EDF	1,481	1,382	1,622
- operated under concession (1)	163	162	1,387
Sub-total	1,644	1,544	3,008
Total depreciation and amortization on fixed assets	1,719	1,607	3,119
Amortization of bond issuance expenses and other capitalized expenses	3	3	3
TOTAL	1,722	1,610	3,123

<sup>(1)</sup> In 2007, depreciation concerned the hydropower concessions and public distribution concessions for the Island Energy Systems.

## Note **12**

### **Provisions**



(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006
Provisions for risks	153	93	97
Pensions and similar obligations	453	508	660
Renewal of assets operated under concession	14	13	594
Management of spent nuclear fuel	500	526	526
Long-term management of radioactive waste (1)	143	390	390
Decommissioning of fossil-fired power plants	70	21	21
Other provisions for expenses (2)	689	718	767
Provisions for expenses	1,869	2,176	2,959
Provisions for depreciation	155	153	172
TOTAL	2,177	2,422	3,227

<sup>(1)</sup> Including €132 million of additional provisions in 2007 (€373 million in 2006) following changes in the estimates underlying the provision for long-term management of longlife high and medium level radioactive waste in application of the Law of June 28, 2006.

<sup>(2)</sup> Including an allocation of €497 million in 2007 in connection with the transition tariff (TARTAM), corresponding to an estimate of the contributions payable for 2008 and 2009.

### Financial result



(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006
Expenses on long-term financial liabilities	(681)	(711)	(704)
Expenses on short-term financial liabilities	(364)	(275)	(139)
Net costs on sales of short-term financial assets	(12)	(1)	(1)
Income on long-term financial receivables (1)	599	539	518
Income on short-term financial receivables	297	200	200
Net income on sales of short-term financial assets (2)	172	44	44
Net Financial Costs	11	(204)	(83)
Realized exchange losses	(916)	(266)	(266)
Realized exchange gains	854	283	283
Foreign exchange result (3)	(62)	17	16
Other financial income	219	132	133
Other financial expenses	(84)	(34)	(34)
Total allocations to amortization and provisions on financial items (4)	(2,351)	(2,127)	(2,198)
Financial income from non-consolidated investments (5)	661	616	616
Reversals of provisions on financial assets (6)	1,825	2,065	2,073
Other financial income and expenses	270	652	591
FINANCIAL RESULT	219	465	525

NB: by convention, expenses are presented between parentheses.

- (1) This mainly comprises interest in loans to RTE and EDF Energy.
- (2) Sales of investment funds generated gains of €172 million in 2007.
- (3) The foreign exchange result of €(62) million is primarily explained by a net exchange loss of €46 million after hedging of loans to EDF Energy.
- (4) Including €2,100 million of unwinding expenses in 2007 and €53 million of impairment on shares in Italenergia Bis.
- (5) In 2007, this item included €259 million of dividends received from RTE SA, €100 million from Wagram Holding 4, €86 million from GGF, €71 million from Sofilo and IEB.
- (6) An amount of €1,521 million was reversed from the provision on EDF International shares in 2007 (€1,886 million in 2006).

# Note 1 4

## **Exceptional result**



Under EDF's policy, exceptional items include only transactions which are clearly unconnected with ordinary operations.

**In 2007,** exceptional items resulted in net income of €1,075 million, the main items of which are the following:

- Following the transfer of the distribution activity to a subsidiary by a partial business transfer at January 1, 2007, the liabilities corresponding to the 1976 revaluation, subsidiaries and exceptional depreciation on
- contributed items were no longer relevant, and were reversed as exceptional income of €699 million, as detailed in paragraph 2.1;
- Sales of property, plant and equipment generated a gain of €153 million, including €124 million for the contribution to Sofilo and €23 million for other real estate sales;
- A net expense of €129 million was booked to cover expenses related to the free share plans for employees;

## Financial statements



- The sale of Edison subscription warrants and securities generated a gain of €111 million:
- Sales of investment funds generated net gains of €95 million;
- Net reversals of exceptional tax depreciation on property, plant and equipment and intangible assets amounted to €78 million;
- Reversal of the additional depreciation generated by the 1976 revaluation amounted to €34 million in 2007.

Transfer of the distribution activity to a subsidiary led to recognition of a net book value of €3,362 million in both expenses and gains on disposals of assets, with a neutral effect on exceptional profit.

In 2006, exceptional items resulted in net income of €2,246 million, the

main items of which are the following:

- The sale of EDF Trading to the subsidiary EDF Holding SAS (C11) generated a capital gain of €1,729 million;
- The disposal of shares in Arcelor generated a capital gain of €231 million;
- Net reversals of exceptional tax depreciation on property, plant and equipment amounted to €142 million;
- Disposals of items of property, plant and equipment generated a capital gain of €69 million, principally related to real estate sales;
- The sale of Edison generated a capital gain of €47 million;
- Reversal of the additional depreciation generated by the 1976 revaluation amounted to €36 million in 2006;
- Sales of investment funds generated a capital gain of €22 million.

Note	Incon	ne taxes	
15		<b>15.1</b> Tax group	P.398
	•••	<b>15.2</b> Income tax payable	P.399
		<b>15.3</b> Deferred taxes	P.399

## **15.1** Tax group

Since January 1, 1988, EDF and certain subsidiaries have formed a group subject to the tax consolidation system existing under French tax legislation (articles 223A to 223U of the French Tax Code). The tax consolidation group for the 2007 financial year was modified following changes in the EDF Group, and now comprises the following subsidiaries:

- Edev, Edev CPL Technologie, Edev ENR Reparties, Edev Teleservices (Edelia), Dunkerque LNG, Cofiva, EDF Partenariats Services, Everbat, H4, Hydrostadium, SAE, Safidi, SCS, Shema, Sodetrel, Synergrid, VTHR;
- RTE EDF Transport SA, @RTERIA;
- ERDF SA;
- CSR, EDF International, GGF, SAPAR, EDF Holding SAS;
- C2, C3, C4, C9, C13, C14, C15, C16, C17, IES France, EDF Assurances,
- EDF PEI SAS, EDF PEI Corse du Sud, EDF PEI Pointe Jarry, EDF PEI Degrad des Cannes, EDF PEI Bellefontaine, EDF PEI Port Est, EDF PEI Haute Corse;
- Sofilo, Immobiliere Montpellier Comedie, Immobiliere Wagram Etoile.

### Income tax payable

Under article 223 A of the French Tax Code, EDF, as the head of the tax consolidated group, is the sole entity responsible for payment of income taxes and additional related contributions.

The tax consolidation agreement between the members of the tax group stipulates that the arrangement must be neutral in effect. In application of this principle, each subsidiary pays the consolidating company a contribution to the group income tax equivalent to the tax it would have paid had it been taxed separately.

The tax consolidation agreement between EDF and the subsidiaries included in the tax group requires EDF to reimburse loss-making subsidiaries for the tax saving generated by their losses, as and when the entities concerned make taxable profits.

EDF recorded an income tax liability of €1,346 million for the tax group for 2007. The breakdown is as follows:

- €828 million for EDF SA, including €101 million of exceptional profit;
- €574 million for the subsidiaries included in the tax group, including €229 million for RTE EDF Transport SA and €288 million for ERDF SA;
- €(56) million for adjustments resulting from the tax consolidation.

## **15.3**

### **Deferred taxes**

Deferred taxes are not recognized in the individual unconsolidated accounts of EDF.

- Deferred taxes result from differences between the accounting bases and tax bases of items. They generally arise as a result of timing differences in the recognition of income and expenses;
- Deferred tax assets reflect expenses which will be tax deductible in future years or losses carried forward which will reduce taxable income in the future;
- Deferred tax liabilities reflect either advance tax deduction of future accounting expenses or accounting revenues that will be taxable in future years and will increase the tax basis.

The changes in deferred taxes were as follows:

2007	Change 2	oo6 without transfe	r of 2006			
	Dis	Distribution to a subsidiary				
(11,358)	350	(11,708)	(12,705)			
(1,344)	509	(1,853)	(1,853)			
(96)	(12)	(84)	(113)			
(12,798)	847	(13,645)	(14,671)			
-	(1)	1	15			
619	(172)	791	791			
619	(173)	792	806			
79	-	79	79			
79	-	79	79			
(12,100)	674	(12,774)	(13,786)			
(4,201)	224	(4,425)	(4,774)			
1	-	1	1			
	(11,358) (1,344) (96) (12,798) - 619 619 79 79 (12,100)	(11,358) 350 (1,344) 509 (96) (12) (12,798) 847 - (1) 619 (172) 619 (173) 79 - 79 - (12,100) 674 (4,201) 224	Distribution to a subsistance  (11,358) 350 (11,708)  (1,344) 509 (1,853)  (96) (12) (84)  (12,798) 847 (13,645)  - (1) 1  619 (172) 791  619 (173) 792  79 - 79  79 - 79  (12,100) 674 (12,774)  (4,201) 224 (4,425)			

<sup>(1)</sup> Mainly concerning post-employment benefits granted to personnel.

<sup>(2)</sup> Includes the tax credit for sponsorship.

### **Financial** statements



## Note 16 and

## Gross values of intangible and tangible fixed assets

(in millions of euros)	Gross value at Dec. 31, 2006	Transfert of Distribution to a subsidiary at Jan 1, 2007	Increases	Decreases	Gross value at Dec 31, 2007
Intangible assets					
Software	438	(141)	106	35	368
Other (1)	846	(140)	89	504	291
Sub-total	1,284	(281)	195	539	659
Property, plant and equipment owned by EDF					
Land and land developments	243	(89)	9	28	135
Buildings	10,038	(986)	153	350	8,855
Nuclear power plants	43,910	-	897	193	44,614
Machinery and plant other than networks	9,500	(1,063)	434	79	8,792
EDF-owned networks	4,660	(4,112)	12	1	559
Other	1,596	(666)	167	129	968
Sub-total Sub-total	69,947	(6,916)	1,672	780	63,923
Property, plant and equipment operated under concession (2)					
Land and land developments	51	(15)	-	-	36
Buildings	9,171	(815)	10	8	8,358
Machinery and plant other than networks	1,606	(635)	1	5	967
Concession networks	54,267	(52,640)	49	3	1,673
Other	36	(23)		1	12
Sub-total	65,131	(54,128)	60	17	11,046
Assets in progress					
Property, plant and equipment (3)	1,933	(569)	2,251	1,470	2,145
Intangible assets	142	(48)	397	159	332
Pre-investments	325	-	2	324	3
Advances and progress payments on orders	208	-	193	-	401
Sub-total	2,609	(617)	2,842	1,953	2,881
TOTAL	138,971	(61,942)	4,769	3,289	78,509

 <sup>(1)</sup> The €504 million decrease includes €490 million relate to CO<sub>2</sub> emission quotas surrendered to the State in 2006.
 (2) At December 31, 2007, assets operated under concession belong to the Island Energy Systems and hydropower concessions.
 (3) Investments in 2007 mainly concerned nuclear equipment for existing plants, the EPR and renovation of fossil-fired plants.

# 17

## Depreciation, amortization and provisions on intangible and tangible fixed assets



(in millions of euros)	At Dec 31, 2006	Transfer of Distribution to a subsidiary at Jan 1, 2007	Increases	Decreases	At Dec 31, 2007
Intangible assets					
Software	181	(48)	69	35	167
Other	132	(62)	17	41	46
Sub-total	313	(110)	86	76	213
Property, plant and equipment owned by EDF					
Buildings and land developments	6,082	(437)	199	240	5,604
Nuclear generation plants	27,840	-	1,265	279	28,826
Machinery and plant other than networks	7,255	(815)	191	71	6,560
EDF-owned networks	2,146	(1,927)	16	1	234
Other	1,234	(544)	60	69	682
Sub-total	44,558	(3,723)	1,731	660	41,906
Property, plant and equipment operated under concession					
Buildings and land developments	5,472	(614)	123	17	4,964
Machinery and plant other than networks	1,073	(365)	15	5	718
Concession networks	20,409	(19,822)	45	2	630
Other	31	(19)	-	1	11
Sub-total	26,985	(20,820)	183	25	6,323
TOTAL	71,856	(24,653)	2,000	761	48,442

### **Financial** statements



Note

### **Investments**



**18.1** Movements in investments P.402 **18.2** Subsidiaries and investments of at least 50% of capital P.403 **18.3** Subsidiaries and investments under 50% of capital P.404 **18.4** Estimated value of the investment securities portfolio P.404 **18.5** Variation in treasury shares P.405

## 18.1

### Movements in investments

	Gross value	Increases	Decreases	Gross value
(in millions of euros)	at Dec 31, 2006			at Dec 31, 2007
Investments (1)	29,014	2,912	1,464	30,462
Receivables related to investments	31	3	26	8
Investment securities (2)	6,154	5,853	3,953	8,054
Other investments	141	38	32	147
Loans (3)	271	6	138	139
Loans to subsidiaries (4)	8,398	2,442	1,028	9,812
Other deposits and guarantees	648	122	58	712
Total	44,658	11,376	6,699	49,334
	At	Increases	Decreases	At
(in millions of euros)	Dec 31, 2006			Dec 31, 2007
Provisions on investments and related receivables (5)	(1,927)	(59)	1,525	(461)
Provisions on investment securities	(48)	(151)	14	(185)
Provisions on loans and other financial assets	(32)	(1)	12	(21)
Total	(2,007)	(211)	1,551	(667)
NET VALUE	42,650			48,667

- (1) The net change in this item mainly results from:
  a. the value of the shares of the distributor (€2,700 million) following transfer of the distribution activity to a subsidiary
- b. redemption of the contribution premium of Wagram Holding 3 for €1,192 million
- c. the capital increase by Sofilo (€182 million) d. redemption of the contribution premium of IEB shares for €247 million

A partial spinoff from Wagram Holding 3 and 4 took place in 2007 for the transfer of Edison shares and warrants to MTNC and Wagram Holding 3. The value of this operation was €1 billion, with a neutral effect on figures at December 31, 2007.

- (2) This heading includes €7,537 million of financial investments intended to finance the following operations covered by balance sheet provisions, concerning:
  - back-end nuclear cycle expenses,
- nuclear plant decommissioning expenses, reprocessing of last core fuel and removal and long-term management of the corresponding radioactive waste.

It also includes a share portfolio set up to generate a satisfactory return in the medium to long term, without participating in the management of the companies in which the shares are owned. At December 31, 2007, this portfolio totaled €473 million and consisted principally of shares in Veolia Environnement.

- (3) €90 million of this item corresponds to the balance at December 31, 2007 of loans granted to employees in connection with the 2005 Employee Offering
- (4) Loans outstanding to subsidiaries at December 31, 2007 totaled €9,812 million, including €5,017 million for the loan to RTE SA, €2,201 million for EDF Energy, and €1,521 million for C3 (including a current account advance of €1 billion). These movements are also affected by exchange rate effects.

  (5) The movement in this heading mainly corresponds to reversals of provisions for depreciation of shares in EDF International (€1,521 million) and allocations to provisions
- on shares in Italenergia Bis (€53 million).

## Subsidiaries and investments of at least 50% of capital

Name (in millions of euros)	Gross book value of shares owned	Impairment recorded at Dec 31, 2007	% capital owned	Equity 2007	Net income 2007	Dividends received 2007	Sales 2007
I. Subsidiaries		,					
* Holding companies							
EDEV (1)	459	-	100	538	32	_	4
EDF International (1)	13,309	216	100	10,264	1,377	-	-
MNTC Holding (1)	1,076	-	100	136	(7)	7	-
EDF Production Electrique Insulaire SAS (1)	5	-	100	NM	-	-	NM
EDF holding SAS (1)	1,950	-	100	1,950	NM	-	-
Société Holding Wagram 3 (1)	1,417	-	100	2,600	(30)	-	-
Société Holding Wagram 4 (1)	1,661	-	100	3,034	(446)	100	-
* Real estate companies							
GGF (1)	471	-	100	456	52	86	26
SOFILO (1)	937	-	100	638	33	71	88
* Industrial and commercial companies							
France							
Centrale Électrique Rhénane de GAMBSHEIM (1)	3	-	50	11	NM	-	4
Centrale Sidérurgique de RICHEMONT (CSR) (1)	152	152	100	12	(1)	-	1
EDENKIA (1)	NM	-	50	NM	NM	-	NM
DALKIA Investissement (1)	200	-	50	235	10	5	11
RTE SA (1)	4,030	-	100	4,474	431	259	4,059
ERDF (2)	2,700	-	100	3,009	302	-	10,808
Other countries							
EDF Belgium (1)	26	-	100	50	9	2	336
Électricité d'EMOSSON SA (1)	14	-	50	88	-	-	26
Rheinkraftwerk Iffezheim (RKI) (1)	3	-	50	10	NM	NM	4
Forces Motrices du Chatelôt (1)	1	-	50	9	NM	NM	3
* Financial companies							
Société Anonyme de Gestion et de Contrôle des Participations (SAPAR FINANCE) (1)	15	-	100	15	NM	-	NM
C3 (1)	190	-	100	175	(2)	1	-
* Other (GIE EIFER)	35	34					
TOTAL	28,654	402				531	

<sup>(1) 2006</sup> equity, net income and sales figures. (2) Provisional 2007 equity, net income and sales figures. NM: Not Material (less than €500,000).



### Subsidiaries and investments under 50% of capital

Name	value of	Impairment recorded	% capital	Equity 2007	Net income	Dividends received
(in millions of euros)	shares owned	at Dec 31, 2007	owned		2007	2007
TOTAL I carried forward	28,654	402				531
II. Investments						
II.1 Companies in which EDF has an interest of between 10% and 50%						
* Industrial and commercial companies						
France						
DALKIA International (1)	425	-	24	1,799	15	4
DALKIA Holding (1)	897	-	34	1,269	105	34
Other countries						
ITALENERGIA BIS (including subscription warrants) (1)	344	53	18	2,850	23	71
TOTAL II.1	1,666	53				109
II.2 Companies in which EDF has an interest of less than 10%:						
AREVA (1)	123	-	3	2,282	280	7
EDISON	15	-	NM	4,589	351	-
Other companies	3	-				-
Other countries						
Force Motrice de Mauvoisin	1	-	10	NA	NM	NA
TOTAL II.2	142	-				7
TOTAL II	1,808	53				116
TOTAL INVESTMENTS, GROSS(I+II)	30,462	455				647
TOTAL INVESTMENTS, NET	30,007					

<sup>(1) 2006</sup> equity, net income and sales figures. NM: Not Material (less than €500,000).

### NA: Not Available.

## 18.4

### Estimated value of the investment securities portfolio

		At start of year			At year-end	
(in millions of euros)	Gross book value	Net book value	Estimated value	Gross book value	Net book value	Estimated value
VALUE OF INVESTMENT SECURITIES	6,154	6,105	7,183	8,054	7,868	9,164

The investment securities portfolio is mainly comprised of the following dedicated assets:

- Investment securities currently held and managed directly by EDF, including EDF's interest in Mittal and interest rate securities (bonds and negotiable debt instruments);
- Specialized collective investment funds on leading international markets, managed by independent French or foreign asset management companies selected on the basis of solicited proposals or through a call for bids. These funds cover various segments of the bond or equities markets, with EDF aiming to achieve the broadest diversification possi-

ble: European, North American, and Japanese equities and worldwide bonds. They are held through open-end funds and "reserved" funds established by EDF solely for its own use. The performance of each fund is measured based on a benchmark market indicator appropriate to the stock market selected.

These assets, managed on a long-term basis, are comprised of diversified bond, monetary and equity investments, in accordance with a strategic allocation determined by the Board of Directors, revised periodically.

The dedicated investment fund portfolio breaks down as follows:

	20	007	20	006
(in millions of euros)	Net book value	Net asset value	Net book value	Net asset value
North American equities	365	404	462	494
European equities	323	417	364	464
Japanese equities	29	29	106	109
Wordwide bonds	612	644	465	481
Total dedicated funds	1,329	1,494	1,398	1,548
Other financial investments (direct or through investment funds)	6,027	6,524	4,310	4,680
TOTAL DEDICATED ASSETS	7,356	8,018	5,707	6,228

These funds are carried at historical value and, if necessary, write-downs are recorded when the net asset value is less than the historical value. When the net asset value exceeds the historical value, no unrealized capital gain is recorded.

## **18.5** Variation in treasury shares

(in millions of euros)	Gross value at Incre Dec 31, 2006		Decreases	Gross value at Dec 31, 2007
TREASURY SHARES	1	37	29	9

A total of 124,503 treasury shares held at December 31, 2007 are included in investment securities. These shares were acquired under a liquidity contract with an investment services provider.

## Note

## **Related companies**

**19.1** Relations with the french state and state-owned entities

	EDF's receivables (1)		EDF's liabi	lities (1)			
Companies (in millions of euros)	Loans	Trade receivables	Net liabilities included in current account	Trade liabilities	Net Balance Receivable (Payable)	Financial expenses	Financial income
RTE SA	5,017	189	-	(145)	5,061	-	291
EDF ENERGY	2,201	-	-	-	2,201	-	116
C3	1,521	-	-	-	1,521	-	24
EDEV	399	-	-	-	399	-	6
ERDF	283	388	-	(2,938)	(2,267)	-	21
EDF TRADING	216	450	-	(701)	(35)	-	5
Société Holding Wagram 4	53	-	-	-	53	-	3
EDF Belgium	-	-	-	(77)	(77)	-	-
ERDF current account	-	-	(2,346)	-	(2,346)	(103)	-
Group cash management agreemen with subsidiaries	t _	-	(1,594)	-	(1,594)	(69)	1
Tax consolidation agreement (2)	-	-	(519)	-	(519)	-	-
Agreement for investment of subsidiaries' cash surpluses	-	-	(1,791)	-	(1,791)	(160)	-

<sup>(1)</sup> Receivables and payables of more than €50 million.

P.406

<sup>(2)</sup> Including EDF International (€(691) million).



### Relations with the french state and state-owned entities

### 19.1.1 Relations with the French State

The French State holds 84.8% of the capital of EDF SA at December 31,2007, and is thus entitled in the same way as any majority shareholder to control company decisions that require approval by the shareholders.

In accordance with the legislation applicable to all companies having the French State as their majority shareholder, EDF is subject to certain inspection procedures, in particular economic and financial inspections by the State, audits by the French Court of Auditors (*Cour des Comptes*) or Parliament, and verifications by the French General Finance Inspectorate (*Inspection Générale des Finances*).

Under an agreement entered into by the French State and EDF on July 27, 2001 concerning the monitoring of external investments, procedures exist for prior approval by the French State or notification (advance or otherwise) of the State in respect of certain planned investments, additional investments or disposals by EDF. This agreement also introduced a procedure for monitoring the results of external growth operations.

The public service contract between the French State and EDF was signed on October 24, 2005. This contract is intended to form the framework for public service missions entrusted by the lawmaker to EDF for an unlimited period, since the Law of August 9, 2004 simply requires presentation of a report every three years to the French parliament without stipulating the duration of the contract.

EDF, like other electricity producers, also participates in the multi-annual generation investment program defined by the minister in charge of energy, which sets objectives for the allocation of generation capacity.

Finally, the French State intervenes through the regulation of electricity and gas markets, particularly for authorization to build and operate generation facilities, and establishment of the sales tariffs for non-eligible customers, transmission and distribution tariffs, and the level of the Contribution to the Public Electricity Service (Contribution aux charges de service public de l'électricité or CSPE).

### 19.1.2 Relations with Gaz de France

Since 1951, all of EDF's distribution activities have been undertaken with Gaz de France within the scope of a common structure. Since July 1, 2004, EDF and Gaz de France have each set up their own distribution network operator. The common electricity and gas network operator, a subsidiary formed for the purpose with effect from January 1, 2007, manages local public services for energy distribution, covering network construction, operation and maintenance, and metering.

In October 2004, EDF and GDF signed a contract defining their relationship in respect of the common operator, its scope of competence and the allocation of costs generated by its activities, as well the governance methods. This contract continues to apply after the transfer of the respective distribution activities to subsidiaries.

EDF and GDF also have two other common services governed by contracts:

- The Health and Safety Delegation;
- The Information Technology and Telecommunications Division (DIT), which is responsible for certain information systems.

The current account with Gaz de France showed a balance of €23 million at December 31, 2007.

### 19.1.3 Relations with public sector entities

EDF enters into normal business transactions with public sector entities, mainly for electricity supplies and invoicing for access to the transmission network.

Reprocessing and transportation of nuclear fuel by Areva for EDF account for most of the energy purchase costs from state-owned entities. Other purchases concern nuclear plant maintenance services provided by the Areva Group.

EDF also owns shares in Areva valued at €123 million at December 31, 2007

## Inventories and work-in-process

20

**20.1** Nuclear fuel and materials

P.407

•••

20.2 Other materials

P.407

(in millions of euros)	Nuclear fuel and materials	Other fuels	Other raw materials	Work in process for production of goods and services	Total
Gross value at Dec 31, 2006	5,232	300	600	45	6,177
Provisions at Dec 31, 2006	(218)	-	(127)	(23)	(368)
Net value at Dec 31, 2006	5,014	300	473	22	5,809
Gross value at Dec 31, 2007	6,194	310	566	33	7,103
Provisions at Dec 31, 2007	(11)		(131)	(16)	(158)
Net value at Dec 31, 2007	6,183	310	435	17	6,945

## 20.1

### **Nuclear fuel and materials**

Inventories of nuclear fuel and materials comprise fissile materials in various stages of production, and fuel in the reactor.

At December 31, 2007, in keeping with the notion of "loaded fuel" as defined in the decision of March 21, 2007, in France, the cost of inven-

tories for fuel in reactors but not yet irradiated includes expenses for management of spent fuel and the long-term management of radioactive waste. The corresponding amounts are taken into account in the relevant provisions.

## 20.2

### Other materials

This total includes the book value of spare parts which are kept mainly for use in fossil-fired and nuclear power plants, to replace those used through normal wear and tear as the equipment progressively deteriorates. It also includes the value of gas trading stocks, as EDF now offers both types of energy to eligible customers.



## Receivables and prepaid expenses



Deschiebles	Gross	Gross value at	Gross	Liquidity			
Receivables (in millions of euros)	value at Dec 31, 2006	Jan 1, 2007 after transfer of Distribution to a subsidiary	value - at Dec. 31, 2007	Within 1 year	Between 2 and 5 years	After 5 years	
Fixed asset receivables							
Advances to subsidiaries and affiliates	31	31	8	8	-	-	
Loans	271	261	138	98	29	11	
Other investments (1)	9,046	9,330	10,525	5,269	3,288	1,968	
Sub-total	9,349	9,622	10,671	5,375	3,317	1,979	
Current asset receivables							
Operating receivables							
- Trade receivables							
- Amounts billed	1,990	2,183	2,174	2,174	-	-	
- Unbilled receivables (2)	7,307	7,223	8,244	8,244	-	-	
- Other operating receivables (3)	2,346	2,181	3,132	2,878	134	120	
Cash instruments	60	60	59	59	-	-	
Prepaid expenses	467	460	454	310	40	104	
Sub-total	12,170	12,107	14,063	13,665	174	224	
Advances and progress payments on orders	333	333	412	412	-	-	
TOTAL	21,851	22,062	25,146	19,452	3,491	2,203	

<sup>(1)</sup> Including €9,812 million of loans to subsidiaries at December 31, 2007.

# Note

### Marketable securities



Marketable securities (in millions of euros)	2007	2006	Change
Euro investment funds	1,881	4,093	(2,212)
Negotiable debt instruments (Euros or other currencies) maturing within 3 months (1)	2,230	532	1,698
Negotiable debt instruments (Euros) maturing after 3 months	3,823	5,607	(1,784)
Euro bonds	506	402	104
Other marketable securities	21	119	( 98)
Gross value	8,461	10,753	(2,292)
Provisions	(5)	(1)	(4)
NET VALUE	8,456	10,752	(2,288)

<sup>(1)</sup> Short-term negotiable debt instruments at December 31, 2007 comprise €545 million of dedicated assets, with no equivalent component in 2006.

<sup>(2)</sup> Mainly concerns receivables for energy delivered and measured but unbilled, and energy neither delivered nor billed.
(3) Including €547 million of receivables on group companies, €1,351 million of receivables on the French state, and €467 million for the Contribution to the Public Electricity Service (CSPE).

## Variation in cash and cash equivalents reported in the cash flow statement



(in millions of euros)	2007	2006	Variation
Marketable securities	8,461	10,753	(2,292)
Cash and cash equivalents	913	333	580
Subtotal in balance sheet assets	9,374	11,086	(1,712)
Euro investment funds	(1,881)	( 4,093)	2,212
Negotiable debt instruments (Euro) maturing after 3 months	(3,823)	(5,607)	1,784
Bonds	(506)	(402)	(104)
Marketable securities (non Euro)	-	(1)	1
Negotiable debt instruments (non Euro) maturing after 3 months	-	(63)	63
Accrued interest on marketable securities maturing after 3 months	(20)	(20)	-
"Cash and cash equivalents" in the cash flow statement	(6,230)	(10,187)	3,957
Purchases of exchange options classified as cash instruments in the balance sheet	10	-	10
Cash advances to subsidiaries (cash pooling agreements) included in "other operating receivables" in the balance sheet	70	-	70
Cash advances from subsidiaries (cash pooling agreements) included in "other operating liabilities" in the balance sheet	(4,031)	(1,316)	(2,715)
"Cash and cash equivalents" in the cash flow statement	(807)	(417)	(390)
Elimination of the effect of currency fluctuations			(1)
Elimination of the cash contribution to the Distribution subsidiary			1,491
Elimination of net financial income on cash and cash equivalents			67
NET VARIATION IN CASH AND CASH EQUIVALENT: SUBTOTAL A+B+C IN TH	IE CFS		1,167

"Cash and cash equivalents – opening balance" and "Cash and cash equivalents – closing balance" do not include investment funds or nego-

tiable debt instruments maturing in more than three months, bonds or net cash contributed by subsidiaries.

# Note 74

## Unrealized foreign exchange gains and losses



Net translation adjustments totaled €124 million (net unrealized exchange gain).

Unrealized exchange losses amounted to €35 million and mainly result from unhedged loans in GBP. All unrealized exchange losses (including unhedged items) were covered by a provision of €32 million at December 31, 2007. The urealized exchange losses of €3 million on

negotiable debt instruments are netted with unrealized exchange gains on the same instruments, generating a gain of €26 million.

Unrealized exchange gains amounted to €159 million and primarily result from swapped borrowings in GBP (€129 million) and unhedged negotiable debt instruments issued in USD (€29 million).

## Financial statements



# **Note 25**

## **Variation in equity**



(in millions of euros)	Capital and capital contributions	Reserves and premiums	Retained earnings	Net income	Investment subsidies received	Tax- regulated provisions	Total equity
At December 31, 2005	911	15,111	(10,028)	3,532	57	8,065	17,649
Allocation of 2005 net income	-	61	2,032	(2,093)	-	-	-
Allocation of retained earnings to reserve	s -	(8,286)	8,286	-	-	-	-
Dividend distribution	-	-	-	(1,439)	-	-	(1,439)
2006 net income	-	-	-	6,055	-	-	6,055
Other changes	-	(1)	-	-	27	(136)	(110)
At December 31, 2006	911	6,884	290	6,055	84	7,929	22,155
Allocation of 2006 net income	-	-	3,942	(3,942)	-	-	-
Dividend distribution	-	-	-	(2,114)	-	-	(2,114)
2007 net income	-	-	-	4,934	-	-	4,934
Interim dividend	-	-	(1,057)	-	-	-	(1,057)
Other changes	-	(10)	-	-	(37)	(733)	(780)
AT DECEMBER 31, 2007	911	6,874	3,175	4,934	47	7,197	23,138

The  $\leqslant$ 983 million variation in equity in 2007 is mainly attributable to the following:

- €(2,114) million for dividend distributions from 2006 net profit as decided at the general shareholders' meeting of May 24, 2007 (€1.16 per share, paid on June 4, 2007);
- €(1,057) million for the interim dividend distribution from 2007 net profit as decided at the Board of Directors' meeting of November 7, 2007 (€0.58 per share, paid on November 30, 2007);
- €4,934 million of net profit for the year, including €699 million corresponding to reversals of reserves and subsidies no longer needed following the transfer of the distribution activity to a subsidiary;
- €(780) million of changes: €(699) million related to the transfer of the distribution activity to a subsidiary, and €(81) million of other changes.

The  $\leq$ 4,506 million variation in equity in 2006 was mainly attributable to the following:

- €(1,439) million for dividend distributions from 2005 net profit as decided at the general shareholders' meeting of June 9, 2006 (€0.79 per share, paid on June 20, 2006);
- €6,055 million of net profit for the year;
- €(110) million resulting from €(136) million of net reversals from taxregulated provisions, and €30 million of subsidies received.

### Share capital

At December 31, 2007, the share capital amounts to €911,085,545, comprising 1,822,171,090 fully subscribed and paid-up shares with nominal value of €0.50 each, owned 84.8% by the French State, 13.3% by the public (institutional and private investors) and 1.9% by current and retired Group employees.

## **Special concession accounts**



(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006
Rights in hydropower concession assets			
- value in kind of assets	182	182	182
- revaluation difference	1,164	1,195	1,195
Rights in hydropower assets	1,346	1,377	1,378
Rights in public distribution concession assets (1)			
- value in kind of assets	1,077	1,077	34,338
- revaluation difference	1	1	63
- unamortized financing by the operator	(584)	( 578)	(16,903)
- amortization of grantor financing	195	183	7,258
Contributions received for concessionary plant assets under construction	14	9	74
Rights in public distribution assets	703	692	24,830
TOTAL	2,049	2,069	26,208

<sup>(1)</sup> At December 31, 2007, rights in public distribution concession assets concern island energy systems not operated through a subsidiary.

## Note **7**

### **Provisions**

**27.1** Contingent liabilities

P.411

	•
•••	• •
	•

			Increases	Decre	eases		
(in millions of euros)	2006	Operating	Financial (1) Exceptional	Utilizations	Reversals	Other (1)	2007
Provisions for unrealized exchange losses	4		32	(4)	-		32
Provisions for risks related to investments	2						2
Provisions for losses on contracts	142	43	7	(29)	(103)	-	60
Provisions for other risks	316	109		(47)	(78)	(28)	272
PROVISIONS FOR RISKS	464	152	39 -	(80)	(181)	(28)	366

<sup>(1)</sup> Including €28 million related to the transfer of the distribution activity to a subsidiary at January 1, 2007.

## 27.1

### **Contingent liabilities**

## Discharge by the Saint Chamas power plant into the Etang de Berre

In 1999, a professional association initiated legal action before the French courts and the European Commission relating to operation of the hydropower plant at Saint-Chamas.

EDF won the case in the French courts. On March 29, 2007 the same professional association lodged an appeal against the Lyon Appeal Court's ruling of January 22, 2007 in favor of EDF, but this appeal was subsequently withdrawn.

In the proceedings before the European Commission, negotiations between the French State and the Commission resulted in the freshwa-

## Financial statements



ter emission limits being set at 1.2 billion m3, with introduction of a minimum salinity level for the Etang de Berre saltwater marsh.

The decree modifying the terms of the concession and incorporating the maximum freshwater emission level and the salinity requirement negotiated with the Commission was published on December 9, 2006.

EDF considers that the risks associated with these constraints are now negligible.

### **Labor litigation**

EDF is party to a number of labor lawsuits with employees, primarily regarding the calculation and implementation of rest periods. EDF estimates that none of these lawsuits, individually, is likely to have a significant impact on its profits and financial position. However, because they concern situations likely to involve a large number of employees, these

litigations could present a systemic risk which could have a material, negative impact on the Company's financial results.

### Individual training entitlement (*Droit individuel à la formation* or DIF)

The French law of May 4, 2004 allows each employee an individual entitlement to a minimum of 20 hours of training per year, which may be accumulated over 6 years. The company agreement signed on February 24, 2006 defines the conditions for exercising this entitlement, listing the types of training eligible. Expenses for such training are recorded as incurred.

DIF entitlements earned but not yet used at December 31, 2007 total 4,904,638 hours, including 4,894,957 for which no application has been made

P.412

P.415

### Note

### Provisions for back-end nuclear cycle



**28.1** Impact of application of the law of June 28, 2006 on provisions for the back-end nuclear cycle and provisions for decommissioning and last cores

**28.2** Provisions for back-end nuclear cycle P.413

**28.3** Provisions for decommissioning and last cores

**28.4** Secure financing of long-term obligations P.416

28.1

## Impact of application of the law of June 28, 2006 on provisions for the back-end nuclear cycle and provisions for decommissioning and last cores

For provisions related to the operation of nuclear plants, the financial statements at December 31, 2007 reflect application of the law of June 28, 2006 and its implementing provisions, leading to the following main differences in presentation and valuation:

### Presentation of the provision accounts

The implementing provisions for the French Law of June 28, 2006 on the sustainable management of radioactive materials and waste require expenses to be measured in five categories.

Consequently, nuclear provisions are presented as follows:

- Power plant decommissioning provisions;
- Provision for spent fuel management, previously the provision for reprocessing nuclear fuel; this also covers expenses for removal and conditioning of old waste;
- Provision for long-term radioactive waste management, previously the provision for removal and storage of radioactive waste; this also covers expenses for surveillance once storage is closed.

In the balance sheet, these provisions are presented under two headings:

- Provision for back-end nuclear cycle, previously called the provision for end of nuclear cycle;
- Provision for decommissioning and last cores.

## Management expenses for waste resulting from decommissioning of nuclear plants

The decree of February 23, 2007 and the decision of March 21, 2007 require expenses for the long-term management of packages of radioactive waste resulting from decommissioning to be separated from actual decommissioning expenses.

Consequently, provisions for the long-term management of radioactive waste resulting from decommissioning operations have been reclassified and are now included in the "Provision for long-term radioactive waste management" instead of "Decommissioning provisions".

EDF's share of the expenses related to fuel in the Phénix plant included in the decommissioning provisions was also reclassified to the appropriate item, i.e. "Provision for spent fuel management".

These reclassifications total €850 million at December 31, 2007, and have no impact on the net income.

### Expenses for spent fuel management and the long-term management of waste resulting from spent fuel

Calculation of the provisions for the back-end nuclear cycle reflects the new notion of "loaded fuel", defined in the decision of March 21, 2007 as being all the fuel in the reactor, spent or otherwise.

Consequently, additional provisions for spent fuel management and the long-term management of waste resulting from this fuel have been booked for the portion of fuel not yet spent, with a corresponding increase in the value of the fuel included in inventories. This has no impact on 2007 income.

Future expenses for management of spent fuel and management of the corresponding radioactive waste continue to be recognized in the income statement as the fuel is spent and the inventories are consumed.

### New definition of the operating cycle

The decree of February 23, 2007 states that the operating fuel cycle concerns industrial facilities that exist or are under construction.

Fuels with high plutonium content (MOX fuels and at Creys-Malville) will not be recycled in the reactors currently in operation or under construction, but in future 4th-generation facilities. Without prejudging the way the 4th-generation facilities are to be developed, provisions for this type of nuclear fuel are now estimated based on a conservative scenario of long-term and direct storage of nuclear fuel, and reclassified as provisions for long-term radioactive waste management. This new scenario leads to significantly higher costs, but spread over a longer period. As a result, after discounting, provisions decreased by €394 million.

### Inclusion of the notion of "site operator" in estimation of expenses

Under the decision of March 21, 2007, EDF as operator of the Brennilis site, must establish provisions to cover the full expense of decommissioning the plant and managing fuel and waste. The partner's share is recorded in receivables and there is no impact on 2007 net income.

### Obligations related to ANDRA studies and research and local support measures

Based on the instructions of the law and the information available, in 2006 EDF revised its provisions to reflect the obligations related to ANDRA research and regional support projects.

At December 31, 2007, the relevant provisions were adjusted upward by €132 million based on the latest information available.

The impacts of the law of June 28, 2006 and its implementing provisions published in 2007 lead to a €885 million increase in provisions at December 31, 2007, with a corresponding increase in inventories and receivables (€1,147 million) and operating income of €262 million over the year.

The effect of the law of June 28, 2006 was reflected in the 2006 financial statements by a €373 million increase in provisions, with an equivalent negative impact on operating income.

## **28.2** Provisions for back-end nuclear cycle

The movement in provisions for the back-end nuclear cycle breaks down as follows:

			Increases		Decr	eases		
(in millions of euros)	2006	Operating	Financial (1)	Exceptional	Utilizations	Reversals	Other (2)	2007
Provision for spent fuel management	10,202	500	504	-	(602)	(66)	221	10,759
Provision for long-term radioactive waste management	4,400	11	217	-	(111)	(30)	1,414	5,901
PROVISIONS FOR BACK-END NUCLEAR CYCLE	14,602	511	721		( 713)	( 96)	1,635	16,660

<sup>(1)</sup> Financial expenses related to reverse discounting.

<sup>(2)</sup> All impacts of the Law of June 28, 2006 and its implementing provisions on the provisions for the back-end nuclear cycle are reported under "Other changes".

## Financial statements



The corresponding expenses are estimated based on the economic conditions of the year-end, and spread over a forecast disbursement sched-

ule. A provision is booked equivalent to the discounted value at the yearend (assuming 2% inflation and a 5% discount rate).

	2	:007	2006	
(in millions of euros)	Costs based on economic conditio at year end			
Provision for spent fuel management	16,209	10,759	15,413	10,202
Provision for long-term radioactive waste management	20,048	5,901	12,554	4,400
PROVISIONS FOR BACK-END NUCLEAR CYCLE	36,257	16,660	27,967	14,602

Changes in the provisions calculated under year-end economic conditions mainly result from the inclusion in 2007 of the effects of the implementing provisions for the law of June 28, 2006:

- Additional expenses corresponding to the portion of fuel not yet spent, included in the fuel in the reactor;
- Higher costs for spent fuels with high plutonium content;
- Reclassifications into this category of the management expenses for radioactive waste resulting from decommissioning, which were previously included in decommissioning expenses.

## **28.2.1** Provisions for spent fuel management

This includes the following:

- Processing of spent fuel, which includes its transportation from EDF's production centers to the Areva plant at La Hague, reception, storage and processing (including conditioning and storage of waste).
  - Spent fuel is used fuel that can be recycled in existing facilities, including the portion in reactors but not yet spent.
  - The expenses are estimated based on the EDF-Areva agreement covering the period 2001-2007 signed on August 24, 2004, and the same assumptions are applied for the quantities that will be reprocessed after 2007, based on reprocessing forecasts;
- Oxidation and storage of uranium obtained from reprocessed fuel that is not immediately recycled. These expenses are estimated based on EDF's best estimates, taking into account the ongoing EDF-Areva negotiations:
- EDF's contribution towards final shutdown and decommissioning costs for the La Hague reprocessing plant and its share of the cost of recovering and conditioning old waste resulting from fuel reprocessing on the La Hague site. These amounts remain in this provision until completion of negotiations with Areva, which should lead to payment of a one-time sum, the amount and terms of which have not yet been defined;
- EDF's share of the management costs for fuel from the Phénix plant.

For fuel in reactors but not yet spent, provisions are booked against an increase in the value of the fuels included in inventories.

## 28.2.2 Provisions for long-term radioactive waste management

This includes future expenses for:

- Removal and storage of radioactive waste resulting from decommissioning of regulated nuclear installations operated by EDF;
- Removal and storage of radioactive waste resulting from spent fuel processing at La Hague;
- Long-term and direct storage of fuel that cannot be recycled in existing installations (MOX fuel and fuel at Creys-Malville);
- EDF's share of the costs of studies, coverage, shutdown and surveillance of storage centres:
- Existing centers, for very low-level waste, and low and medium-level waste;
- New centers to be opened, for long-life low-level waste and long-life medium and high-level waste.

The volumes of waste concerned by provisions include packages of existing waste and all waste to be conditioned, resulting from decommissioning or spent fuel processing at La Hague (based on all fuel in reactors at December 31, spent or otherwise).

These volumes are regularly reviewed, in keeping with the data declared for the purposes of the ANDRA's national waste inventory.

For waste resulting from decommissioning of plants in operation, the accounting treatment is identical to the treatment of decommissioning expenses: an asset corresponding to the provision is recognized under the accounting policies described in note 1.6.

For waste resulting from decommissioning of the Brennilis plant, the accounting treatment is identical to the treatment of decommissioning expenses. This provision is recorded for its total amount, and the share to be financed by the partner is included in accrued revenues.

For future waste that will result from fuel currently in reactors but not yet spent, provisions are booked against an increase in the cost of the fuels included in inventories.

The provision for long-life medium and high-level waste is the largest component of the provisions for long-term radioactive waste manage-

ment. The French Law of June 28, 2006 on the sustainable management of radioactive materials and waste has confirmed EDF's assumption of geological storage. Provisions are based on that assumption.

Since 2005, the gross value and disbursement schedules for forecast expenses have been based on a scenario of industrial geological waste storage, following conclusions presented in the first half of 2005 by the task force set up by the French department for Energy and Raw Materials (*Direction Générale de l'Energie et des Matières Premières* – DGEMP) comprising members representing the relevant government departments (DGEMP, APE and Budget Department), ANDRA and the producers of waste (EDF, Areva,

CEA). The approach applied by EDF to the working party's conclusions is reasonable and coherent with information available internationally.

A part from effects related to normal operation and the effects of the law of June 28, 2006 and its implementing provisions as described in note 28.2, the overall effect on income of other adjustments made in 2007 is non-significant. Most of these adjustments concern reviews of assumptions, reflected in a decrease in EDF's share of indirect estimated costs for the operation of the storage center for long-life medium and high-level waste and a rise in storage costs for long-life low-level waste.

## 28.3

### **Provisions for decommissioning and last cores**

The change in decommissioning and last core provisions breaks down as follows:

		Increases		Decreases			
	2006	Operating	Financial (1)	Utilization	Reversals	Other (2)	2007
(in millions of euros)							
Decommissioning provisions for fossil-fired plants	308	68	18	(15)	(1)	42	420
Decommissioning provisions for nuclear plants	10,338	2	517	(133)	-	(750)	9,974
Provisions for last cores	1,669	-	84	-	(52)	-	1,701
TOTAL	12,315	70	619	(148)	(53)	(708)	12,095

<sup>(1)</sup> Financial expenses related to reverse discounting

The corresponding expenses are estimated based on the economic conditions of the year-end, and spread over a forecast disbursement sched-

ule. A provision is booked equivalent to the discounted value at the yearend (assuming 2% inflation and a 5% discount rate).

	:	2007	2006	
(in millions of euros)	Costs based or economic condition at yearend	n Amounts in ons provisions e at present value		
Decommissioning provisions for fossil-fired plants	602	420	447	308
Decommissioning provisions for nuclear plants	19,792	9,974	21,165	10,338
Provisions for last cores	3,594	1,701	3,477	1,669
TOTAL PROVISIONS FOR DECOMMISSIONING AND LAST CORES	23,988	12,095	25,089	12,315

Changes in the provisions calculated under year-end economic conditions mainly result from reclassification in 2007 of provisions for the expenses of managing radioactive waste resulting from decommissioning as provisions for long-term radioactive waste management, in application of the law of June 28, 2006.

## **28.3.1.1** DECOMMISSIONING PROVISIONS FOR FOSSIL-FIRED POWER PLANTS

The expenses related to decommissioning of fossil-fired power plants are determined according to regularly updated studies based on estimated future costs, measured by reference to the charges recorded on past operations and the most recent estimates for plants still in operation.

For plants still in operation, an asset is recorded against the provision.

Following revision of the assumptions concerning certain decommissioning work, provisions have increased.

## **28.3.1.2** DECOMMISSIONING PROVISIONS FOR NUCLEAR POWER PLANTS

These provisions concern the decommissioning of pressurized water reactor (PWR) nuclear power plants currently in operation and nuclear power plants that have been permanently shut down.

## For nuclear power plants currently in operation (PWR plants with 900 MW, 1300 MW and N4 reactors)

A study undertaken in 1991 by the French Ministry of Trade and Industry estimated a benchmark cost, confirming the assumptions defined in 1979 by the PEON commission, estimating decommissioning costs (including long-term management of waste) at approximately 15% of

<sup>(2)</sup> Including the €(750) million effect of the Law of June 28, 2006 and its implementing provisions.

## Financial statements



investment expenditure as a ratio to net continuous power. This estimate was in turn confirmed by further studies focusing on a specific site, carried out in 1999. The underlying assumption is that once decommissioning is complete, the sites will be returned to their original state and the land reused.

The estimated schedule for future disbursements is based on the decommissioning plans drawn up by EDF experts, which take into account all known statutory and environmental regulations applicable, together with an uncertainty factor inherent to the fact that payments will only be made in the long term.

At December 31, 2007, in accordance with the law of June 28, 2006 (see note 28.2), the management expenses for radioactive waste resulting from decommissioning operations are included in long-term management of packages of waste, rather than in plant decommissioning expenses as previously. The total present value of the obligations concerning decommissioning of nuclear power plants is covered by a provision

An asset corresponding to the provision is recognized under the accounting policies described in note 1.6.

An asset is also recorded in the form of accrued revenues to recognize the share of decommissioning costs for the Cattenom 1-2 and Chooz B 1-2 PWR plants to be borne by foreign partners, in proportion to their investment.

For permanently shut-down nuclear power plants (first-generation UNGG power plants and other plants including Creys-Malville)

The provision is based on the cost of work already completed and on studies, quotations and a comparison made by EDF. Forecast disbursements, based on internally-prepared schedules, are adjusted to reflect inflation, then discounted.

At December 31, 2007, in accordance with the law of June 28, 2006, the management expenses for radioactive waste resulting from decommissioning operations are included in long-term management of packages of waste, rather than in plant decommissioning expenses as previously.

EDF, as operator of the Brennilis site, has established a provision to cover the full expense of decommissioning the plant; the partner's share is recorded in the assets under accrued revenues.

Decommissioning provisions also cover EDF's share of the decommissioning costs for the Phénix plant.

### 28.3.1.3 PROVISION FOR LAST CORES

For EDF, this provision covers expenses related to the future loss on unused fuel following the final reactor shutdown. It comprises two types of expenses:

- Write-down of the inventory of fuel in the reactor that will not be totally spent up when the reactor is shut down, valued at the average price of components in inventories at November 30, 2007;
- The cost of fuel reprocessing and the corresponding waste disposal and storage costs for fuel not yet spent at the time the plant shuts down.
   These costs are valued based on parameters at December 31, 2007 for provisions for spent fuel management and long-term radioactive waste management.

Since this provision relates to an obligation that existed at the commissioning date of the nuclear unit containing the core, all costs are fully covered by provision and an asset associated with the provision is recognized.

## 28.4

### Secure financing of long-term obligations

### 28.4.1 Discount rate

EDF applies a discount rate of 5% in calculating its provisions, together with assumed inflation of 2%, resulting in an effective rate of close to 3%.

### Calculation of the discount rate

The discount rate is determined based on long series data for a sample of bonds with maturities as close as possible to that of the liability. However, some expenses covered by these provisions will be disbursed over periods significantly longer than the duration of instruments generally traded on the financial markets.

The assumption of the nominal rate is currently appropriate for the duration of nuclear commitments, especially in view of the French 2055 treasury bond. The average return on 50-year French treasury bonds is not currently available over a sufficient duration. The benchmark is the sliding average over 10 years of the return on French treasury bonds over longer time horizons, plus the spread of corporate bonds rated A to AA, which include EDF.

The assumed inflation rate used is coherent with the forecasts provided by consensus and expected inflation based on the returns on inflationlinked bonds.

### Revision of the discount rate

The methodology used to calculate the discount rate aims to smooth short-term market effects in order to reflect only long-term trends in rates. It has led to use of a constant discount rate in determining provisions for nuclear commitments since the first application of CRC regulation 2000-06 on liabilities at January 1, 2002. When first calculated, the discount rate was set below contemporary market levels in anticipation of a probable decline in rates. The discount rate is revised on the basis of structural developments in the economy, leading to medium- and long-term changes.

### Discount rate and regulatory limit

The decree of February 23, 2007 and the decision of March 21, 2007 impose a double limit on the discount rate:

it must be below a regulatory maximum "equal to the arithmetic average over the forty-eight most recent months, of the constant 30-year rate (TEC 30 years), observed on the last date of the period concerned, plus one point", and it must also be below the expected rate of return on assets covering the liability.

The discount rate applied respects both these limits.

## 28.4.2 Sensitivity factors in provisions for the back-end nuclear cycle and provisions for decommissioning and last cores

Since the measurement of all the provisions described in notes 28.2 and 28.3 is sensitive to assumptions concerning costs, inflation rate, long-

term discount rate, and disbursement schedules, a revised estimate is established at each closing date to ensure that the amounts accrued correspond to the best estimate of the costs eventually to be borne by the company. Any significant differences resulting from these revised estimates could entail changes in the amounts accrued.

This sensitivity to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules can be estimated through comparison of the gross amount estimated under economic conditions for December of the year concerned with the discounted value of the amount.

This approach can be complemented by estimating the impact of a change in the discount rate on the discounted value.

In application of article 11 of the decree of February 23, 2007, the following table reports these details for the main components of provisions for the back-end nuclear cycle, decommissioning of nuclear plants and last cores:

	Amounts in provisions at present value		Sensitivity to discount rate				
	2007	2006	20	2007		006	
(in millions of euros)			0.25%	- 0.25%	0.25%	- 0.25%	
Back-end of nuclear cycle							
Spent fuel management	10,759	10,202	(212)	225	(204)	217	
Long-term radioactive waste management	5,901	4,400	(356)	404	(252)	281	
Decommissioning and last cores							
Decommissioning of power plants	9,974	10,338	(516)	550	(560)	598	
Last cores	1,701	1,669	(85)	91	(87)	93	
TOTAL	28,335	26,609	(1,169)	1,270	(1,103)	1,189	

### 28.4.3 Dedicated assets

In order to secure financing of long-term obligations in increasingly open electricity markets, EDF is progressively building up a portfolio of financial assets dedicated to covering long-term nuclear obligations, specifically the decommissioning of currently active nuclear power plants and the long-term storage of long-life high and medium-level waste.

In September 2005, the pace of the process was accelerated and the Board of Directors decided to:

 Include plants that have already shut down and are being dismantled, and the share of the provision for last cores corresponding to the reprocessing of fuel and removal and storage of the waste from those plants, in the basis covered by dedicated assets;  Accelerate the pace of development of dedicated assets, such that by the end of 2010 they will cover the level of the provisions concerned.

These measures are now an obligation for EDF with the enactment of French Law of June 28, 2006 on the sustainable management of radioactive materials and waste, which requires nuclear power operators to implement a plan to constitute dedicated assets within five years of publication of the law at the latest.

The cash allocation to dedicated assets for 2007 amounts to €2,397 million. Withdrawals totaling €249 million were made to cover EDF's cash needs to the extent of reversals of provisions for disbursements in connection with the related obligations.

At December 31, 2007, the fair value of the dedicated asset portfolio amounts to €8,560 million (€6,228 million at December 31, 2006).



29

## **Provisions for employee benefits**

<b>29.1</b> Provisions for post-employment benefits	P.418
<b>29.2</b> Provisions for other long-term benefits for active employees	P.420
29.3 Actuarial assumptions	P.420
29.4 Changes in the discounted value of the obligation	

and fund assets

P.421

Changes in provisions for employee benefits were as follows:

					Decreases			
(in millions of euros)	12.31.2006	Transfer of Distribution to a subsidiary at Jan 1, 2007	0	Financial	Utilizations (2)	Reversals	12.31.2007	
Post-employment benefits	10,214	(922)	417	714	1,322	-	9,101	
Long-term benefits	911	(310)	37	26	86	-	578	
TOTAL	11,125	(1,232)	454	740	1,408		9,679	

<sup>(1)</sup> Including €391 million for past service and €55 million in amortization of actuarial gains.

(2) Including €1,174 million for benefits paid out and €206 million for hedging assets.

Employee benefit obligations are determined at the level of EDF before transfer of the distribution activity to the subsidiary ERDF, and allocated between EDF and ERDF according to determined bases of apportionment.

## 29.1

### **Provisions for post-employment benefits**

In application of the CNC Emergency Committee opinion 2000-A issued on July 6, 2000 and article 335.1 of the General Chart of Accounts, EDF opted for recognition of post-employment benefits granted to personnel as of January 1, 2005.

Details of these provisions are shown below:

(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006
Pensions	7,741	7,989	8,182
Benefits in kind (electricity/gas)	640	608	991
Retirement gratuities	-	3	5
Bereavement benefit	164	157	235
Bonus paid leave	116	108	162
Cost of studies indemnity	21	20	30
CNIEG administration expenses	397	384	577
Retirement indemnities and pensions for seconded personnel	22	22	31
TOTAL	9,101	9,292	10,214

### 29.1.1 Pensions

The main measures of the financing reform for the special IEG pension system took effect at January 1, 2005.

Specific benefits earned under the special IEG system are benefits not covered by the standard pension systems. Specific past benefits are specific benefits earned for periods validated at December 31, 2004, and specific future benefits are those earned for periods validated after December 31, 2004.

Specific past benefits for the gas and electricity transmission and distribution activities and public service mission management businesses i.e. the regulated or non-competitive activities, are financed by the CTA levy (contribution tarifaire d'acheminement).

The direct financing provided by the companies covers:

- Specific past benefits of employees in the "deregulated" or "competitive" activities;
- Specific future benefits of employees in the regulated and deregulated activities:
- Specific benefits of employees benefiting from early retirement before the standard legal retirement age.

### 29.1.2 Other post-employment benefits

In addition to pensions, other benefits are granted to employees not currently in active service, as detailed below:

### Benefits in kind (electricity/gas)

Article 28 of the electricity and gas industries' national statutes entitles all employees (active or inactive) to benefits in kind in the form of supplies of electricity or gas at the preferential "Employee price". EDF's obligation for supplies of energy to EDF and Gaz de France employees corresponds to the probable present value of kWhs supplied to beneficiaries during their retirement, valued on the basis of the unit cost, taking into account the payment received under the energy exchange agreement with Gaz de France.

### **Retirement gratuities**

Retirement gratuities are paid upon retirement to employees due to receive the statutory old-age pension, or to their dependents if the employee dies before reaching retirement. These obligations are almost totally covered by an insurance policy.

#### Bereavement benefit

The bereavement benefit is paid out upon the death of an inactive or handicapped employee, in order to provide financial assistance for the expenses incurred at such a time (Article 26 § 5 of the National Statutes). It is paid to the deceased's principal dependants (statutory indemnity equal to two months' pension) or to a third party that has paid funeral costs (discretionary indemnity equal to the costs incurred).

### **Bonus paid leave**

All employees eligible to benefit immediately from the statutory old-age pension and aged at least 55 at their retirement date are entitled to 18 days of bonus paid leave during the last twelve months of their employment.

#### Cost of studies indemnity

The cost of studies indemnity is a family benefit not defined by the statutes, intended to provide assistance to inactive employees or their dependents whose children are still in education. It is also paid to beneficiaries of the orphan's pension.

### **CNIEG administrative expenses**

The CNIEG's administrative and financial expenses are paid in varying proportions by all IEG companies.

### Pension equalization for employees on secondment

The pension equalization system for employees on secondment is designed to guarantee employees seconded to EDF Group companies in or outside France between January 1, 2000 and December 31, 2005 income equivalent to the difference between the amount they would have received under the IEG pension system and the amount they receive or will receive under the mandatory systems to which they were affiliated during their secondment.

### Additional retirement bonus

This additional bonus is paid to senior executives when they take retirement and benefit from a statutory old age pension.



### Provisions for other long-term benefits for active employees

Benefits awarded to employees in activity are as follows:

(in millions of euros)	2007	2006 without transfer of Distribution to a subsidiary	2006 y
Discretionary benefit for asbestos-related illness	11	11	17
Asbestos-related early retirement	7	-	-
Long-service awards	70	66	108
Disability annuities	76	81	122
Annuities following industrial accident or work-related illness	414	442	664
TOTAL	578	601	911

### Discretionary benefit for asbestos-related illness

To improve the compensation received by employees with a recognized asbestos-related illness contracted in the course of their employment, EDF pays a discretionary indemnity to the employee or to his dependents if he has died as a result of the illness. The indemnity is equivalent to 20% of the annuity received by beneficiaries or their dependents. For beneficiaries receiving an indemnity under the special IEG system, this indemnity represents 20% of that indemnity, payable in a lump sum.

### Asbestos-related early retirement

EDF has set up an early retirement system for workers aged at least 50, with no minimum service period requirement, who are officially recognised as affected by an asbestos-related illness contracted in the course of their employment.

### Long-service awards

The financial benefits payable to employees awarded long-service medals vary depending on seniority. The projected unit cost method is used to measure these obligations, which correspond to the probable present value of these benefits when an employee reaches the relevant levels of seniority.

### **Disability annuities**

After five years of temporary disability, an employee who cannot resume work for health reasons is declared disabled.

Employees currently in service are entitled to receive an annuity when they are declared disabled by the National Disability Commission (Commission Nationale d'Invalidité) (Article 4-§ of appendix 3 of the National Statutes). In such a case, they receive a disability pension corresponding to 50% of their most recent salary. An employee may be declared disabled after being on long-term sick leave for 5 years, or after industrial accident or work-related illness if the employee is declared unemployable. This benefit, paid until retirement age if the employee's health does not improve, cannot be transferred.

### Annuities following industrial accident or work-related illness

Like their counterparts in the general national system, IEG employees are entitled to financial support in the event of industrial accident or work-related illness, as stipulated in Book IV of the French Social Security Code. These benefits cover all employees and the dependants of any employee who dies as a result of an industrial accident, an accident on the journey between home and work or work-related illness.

The obligation is measured as the probable present value of future benefits payable to current beneficiaries, including any possible reversions.

## 29.3 Actuarial assumptions

The main actuarial assumptions used for provisions for post-employment benefits and long-term employee benefits under the IEG system are summarized below:

- The discount rate is 5% since December 31, 2007 (compared to the previous rate of 4.25%). Actuarial gains and losses after changes in discount rates rate amounted to €100 million at December 31, 2007 (€1,992 million at December 31, 2006);
- The inflation rate is 2%;
- The rise in the basic national salary is estimated at 2% excluding inflation;
- Pay rise levels independently of the basic national salary were determined by means of a quadratic regression on data for 1995 to 2000;
- The average residual period of employment is 13 years;
- The staff turnover rate is not significant.

### Changes in the discounted value of the obligation and fund assets

## 29.4.1 Change in the value of the obligation and net position

	Obligations under plans			
(in millions of euros)	Unfunded	Funded		
Present value of the obligation at Jan 1, 2007 (1)	2,764	14,243		
Current year service cost	378	18		
Interest expense	134	606		
Actuarial gains and losses	(96)	(1,654)		
Benefits paid	(253)	( 400)		
Present value of the obligation at Dec 31, 2007	2,927	12,813		
Fair value of fund assets	-	(5,968)		
Net position	2,927	6,845		
Actuarial gains and losses	(366)	266		
Impact of the limit on prepaid expenses	-	7		
PROVISION RECORDED AT DEC 31, 2007	2,561	7,118		

<sup>(1)</sup> I.e. after transfer of the distribution activity to a subsidiary.

## 29.4.2 Change in the discounted value of fund assets

(in millions of euros)	
Fair value of fund assets at Jan 1, 2007 (1)	5,391
Expected return on fund assets	206
Net contributions	685
Benefits paid	(164)
Actuarial gains and losses on fund assets	(150)
FAIR VALUE OF FUND ASSETS AT DEC 31, 2007	5,968

<sup>(1)</sup> After transfer of the distribution activity to a subsidiary.

## 29.4.3 Breakdown of the value of fund assets

The expected return on fund assets depends on the expected return on each category of financial assets.

Financial assets were allocated as follows at December 31, 2007:

	Retirements indemnities	Pension plan	
Shares	44.9%	23.9%	
Bonds and monetary assets	55.1%	76.1%	

The expected return on long-term financial assets at December 31, 2007 was set at:

- 5.04% for pension funds, i.e. €283 million;
- 5.77% for retirement indemnity funds, i.e. €20 million.

## Financial statements



# Note 30

## Provision for renewal of property, plant and equipment operated under concession



	2006	Transfer of Distribution to a	Increases		Decre	eases		
(in millions of euros)		subsidiary at Jan 1, 2007	Operating expenses	Exceptional expenses	Utilization	Reversals	Other	2007
Provision for renewal	10,695	(10,501)	14	-	-	(10)	(1)	197

The 2007 provision concerns the Island Energy Systems.

# Note 3 1

## **Provisions for other expenses**

••••

	2006	Transfer of Distribution to a		Increases		Decre	eases	
(in millions of euros) Provisions for:		subsidiary at Jan 1, 2007	Operating	Financial (a)	Exceptional	Utilizations	Reversals (5)	2007
personnel expenses (1)	580	(66)	103	16	233	(95)	(21)	750
electrification charges <sup>(2)</sup>	333	(328)	-	-	-	-	-	5
repairs and maintenance <sup>(3)</sup>	141	-	41	-	-	(25)	-	157
energy delivered, not yet measured or billed	79	(34)	-	-	-	-	-	45
other expenses (4)	847	(123)	544	-	-	(242)	(259)	767
PROVISIONS FOR OTHER EXPENSES	1,980	(551)	688	16	233	(362)	(280)	1,724

(a) Financial expenses related to reverse discounting

- (1) Mainly including:
  - €368 million for the contribution to preserve entitlements (AGIRC, ARRCO),
  - the €233 million expense booked in connection with the attribution of free shares to employees (ACT 2007).
- (2) This provision is booked to cover EDF's share of the expenses relating to future work programs adopted by the Fonds d'Amortissement des Charges d'Electrification (sinking fund for electrification charges). The balance at December 31, 2007 concerns the Island Energy Systems.
- (3) This concerns the ten-yearly services of nuclear and fossil-fired power plants.
- (4) At December 31, 2007, this includes €497 million related to the transition tariff system (tarif réglementé transitoire d'ajustement du marché) introduced by French law 2006-1537 of December 7, 2006, and €172 million to cover expenses related to social security bodies.
- (5) Reversals without utilization mainly result from the accounting treatment adopted: the entire TARTAM provision recorded at December 31, 2006 is reversed and a new provision is booked for the period 2008-2009.

## Financial and operating liabilities



Liabilities	Gross value	Gross value at Jan 1, 2007 after transfer of Distribution to a subsidiary	Gross value -	Maturity			
(in millions of euros)	at Dec 31, 2006		at Dec 31, 2007	Within 1 year	2 - 5 years	After 5 years	
Financial liabilities		Substituting					
Bonds	3,733	3.733	3.727	989	2,215	523	
Loans and debts payable to financial institutions	659	659	-	-		-	
Other borrowings (1)	7,525	7,515	11,147	5,955	1,561	3,631	
Other financial liabilities	, , 52.5	7,0.0	,	0,000	.,55	3,03.	
- advances on consumption	146	146	152	59	82	11	
- other	854	824	808	419	44	345	
Sub total financial liabilities	12,917	12,877	15,834	7,422	3,902	4,510	
Advances and payments received from customer	rs 3,250	3,126	3,330	3,330	-	-	
Operating, investment and other liabilities							
Trade receivables and related accounts							
- invoices received (2)	2,454	3,173	3,307	3,307	-	-	
- invoices to be received (2)	2,430	2,899	3,728	3,728	-	-	
Tax and social security (3)	5,177	4,724	4,364	4,364	-	-	
Debts related to fixed assets and related accounts	-	-	-	-	-	-	
- invoices received	93	90	353	353	-	-	
- invoices to be received	341	326	506	506	-	-	
Other liabilities	-	-	-	-	-	-	
- credit balances on customer accounts	37	37	34	34	-	-	
- other credit balances (4)	8,551	10,109	7,985	7,985	-	-	
Sub total operating, investment and other liabilities	19,085	21,358	20,277	20,277	-	-	
Cash instruments	297	297	229	229	-	-	
Deferred income (5)	3,787	3,782	3,712	829	804	2,079	
TOTAL	39,337	41,440	43,382	32,087	4,706	6,589	

<sup>(1)</sup> Including €5,305 million of Medium Term Notes borrowings.
(2) At January 1, 2007 after transfer of the distribution activity to a subsidiary, invoices received and to be received increased by €1,188 million.
(3) This changes result primarily from the decline of CO₂ quotation prices (€(426) million).
(4) Cash pooling and cash investment arrangements with subsidiaries (other than ERDF) amount to €3,460 million, compared to €6,279 million in 2006. The initial amount of the current account with the subsidiary ERDF at January 1, 2007 was €1,528 million, compared to €2,346 million at December 31, 2007.
(5) Mainly payments made by partners for electricity to be supplied in future years.

### **Financial** statements



Note

### **Financial liabilities**

**33.1** Changes in financial liabilities before swaps P.424

33.2 Breakdown of loans by currency, before and after swaps P.425

33.3 Breakdown of loans by type of interest rate before and after swaps

P.425

## 33.1

### Changes in financial liabilities before swaps

(in millions of euros)	Balance at Dec 31, 2006	New borrowings	Repayments	Translation adjustments	Other (3)	Balance at Dec 31, 2007
Bonds						
in euros	3,540	-		-	-	3,540
in other currencies	194	-	1	(5)	-	187
Subtotal 1	3,733	-	1	(5)	-	3,727
Borrowings from credit institutions						
Short-term borrowings in euros (2)	585	-	585	-	-	-
Short-term borrowings in other currencies (2)	74	-	59	(15)	-	-
Subtotal 2	659	-	644	(15)	-	-
Other borrowings and securitisation of recei	vables					
French commercial paper in euros (BTR) (1)	970	2,827	-	-	-	3,797
Commercial paper in foreign currencies (1)	352	1,793	-	(109)	-	2,036
Euro-Medium Term Notes (EMTN) in euros	4,335	-	265	-	-	4,070
Euro-Medium Term Notes (EMTN) in other curre	encies 1,858	90	588	(124)	-	1,236
Contractual financial borrowings (2)	10	-	1	-	(1)	8
Subtotal 3	7,525	4,710	854	(233)	(1)	11,147
Total borrowings 1 + 2 + 3	11,917	4,710	1,499	(253)	(1)	14,874
Advances on consumption	146	-	-	-	6	152
Miscellaneous advances	479	-	-	-	(30)	449
Bank overdrafts	7	-	-	-	4	11
Deferred bank debits	133	-		-	(16)	117
Interest payable	234	-	-	-	(4)	230
Total other financial liabilities	854	-	-	-	(46)	808
TOTAL FINANCIAL LIABILITIES	12,917	4,710	1,499	(253)	(41)	15,834

<sup>(1)</sup> Issues are reported net of repayments for the period.
(2) Repayments are reported net of issues for the period.
(3) Including €(32) million related to the transfer of the distribution activity to a subsidiary.

### Breakdown of loans by currency, before and after swaps

	Stru	Structure of liability in balance sheet			Impact	Impact of swaps		Structure of liability after swaps			
(in millions)	Non- euro	In euros	% non-euro	% of debt	Non- euro	In euros	Non- euro	In euro	% non-euro	% of debt	
I- In euros	-	11,415	-	77	-	1,469	-	12,884	-	86	
II- Non-euro											
CHF	400	243	7	1	(325)	(196)	75	47	2	-	
GBP	653	890	26	6	650	886	1,303	1,777	86	12	
JPY	27,300	166	5	1	(27,300)	(166)	-	-	-	-	
USD	3,048	2,070	59	14	(2,685)	(1,824)	363	246	12	2	
AUD	150	90	3	1	(150)	(90)	-	-	-	-	
Total II		3,459	100	23		(1,389)		2,070	100	14	
TOTAL I+II		14,874		100		80		14,954		100	

The nominal value of swaps included in commitments has no effect on loans in the balance sheet. The effect of swaps on loans in Euros was an increase of €1,469 million, and a decrease of €1,389 million for loans in other currencies outside the Euro zone. The volume of long-term loans is

therefore increased by  $\le$ 80 million, from  $\le$ 14,874 million to  $\le$ 14,954 million. Loans after swaps and unallocated swaps generated an unrealized exchange gain of  $\le$ 152 million.

## 33.3

### Breakdown of loans by type of interest rate before and after swaps

	Structu	Structure of liability in balance sheet			Structure of liability after swaps		
(in millions of euros)	Total	% Dec 31, 2007	% Dec 31, 2006	Total	Total	% Dec 31, 2007	% Dec 31, 2006
Fixed rates							
- Long-term borrowings and EMTN	8,921			(699)	8,222		
- Short-term borrowings	5,052			(4,282)	770		
Total borrowings at fixed rate	13,973	94	73	(4,981)	8,992	60	66
Floating rates							
- Long-term borrowings and EMTN	120			790	910		
- Short-term borrowings	781			4,271	5,052		
Total borrowings at floating rate	901	6	27	5,061	5,962	40	34
TOTAL	14,874	100	100	80	14,954	100	100



### **Note** Financial instruments

**34.1** Impacts of financial instrument transactions on net income

P.427

••••

**34.2** Fair value of derivative financial instruments

P.427

EDF uses financial instruments to limit the impact of the foreign exchange rate risk on equity and the income statement, and to hedge its interest rate risk.

	December 31, 2007		December 31, 2006	
(in millions of euros)	To be received (notional)	To be given (notional)	To be received (notional)	To be given (notional)
1-Interest rate transactions			( ) )	( ) )
Currencies other than the Euro				
Purchases of FLOOR contracts in HUF	-	-	169	-
Sales of FLOOR contracts in HUF	-	-	-	169
Purchases of CAP contracts in HUF	-	-	169	-
Sales of CAP contracts in HUF	- 11	-	-	169
Interest rate swaps - short-term:				
In euros	3,989	3,989	3,864	3,864
In other currencies GBP	968	968	645	645
USD	769	769	-	-
Interest rate swaps - long-term:				
In euros	2,295	2,295	3,957	3,957
In other currencies CHF	181	181	187	187
GBP	-	-	149	149
Subtotal	8,202	8,202	9,139	9,139
2-Exchange rate transactions (Euro value of currencies committed)				-
Forward transactions				
EUR	1,291	2,213	2,772	2,436
CAD	-	-	3	-
USD	3,246	14	1,580	324
GBP	535	2,913	1,036	2,661
CHF	45	45	60	58
PLN	49	71	42	42
Currency options				
Purchases of options				
EUR	728	828	-	-
GBP	341	341	-	-
HUF	228	228	-	-
PLN	172	172	-	-
USD	68	-	-	-
Sales of options				
EUR	831	795	-	-
GBP	341	341	-	-
HUF	228	228	-	-
PLN	172	172	-	-
USD	68	68	-	-
Currency swaps – long-term				
EUR	3,097	4,566	5,356	7,340
JPY	166		142	-
USD	421	387	941	433
GBP	2,725	1,833	4,601	3,697
CHF	458	261	409	269
HUF	-	-	216	216
PLN	210	210	518	518
AUD	90	-	90	-
Sub-total 3- Securitization swaps (1)	15,510 1,674	15,686 1,674	17,767	17,993
	1 67/1	1 67/1	_	

(1) In 2006, €1,718 million of securitization swaps are included in long-term Euro swaps.

The amounts shown in the above table represent the notional capital amount, translated where necessary using year-end exchange rates.

### Impacts of financial instrument transactions on net income

### **34.1.1** Forward and futures transactions

#### (in millions of euros) 2007 2006 Instruments hedging long-term liabilities Long-term swaps, caps and floors (168)(18)**Hedging instruments** used in cash management 7 Interest rate instruments 4 Exchange rate instruments (23)(68)**TOTAL** (187)(79)

### 34.1.2 Investments

(in millions of euros)	2007	2006
Marketable securities	437	216
Short-term cash investments	(194)	34
Investment securities	580	494
TOTAL	823	744

## 34.2

### Fair value of derivative financial instruments

The fair value of currency and interest rate swaps was calculated by discounting future cash flows using year-end market exchange and interest rates, over the remaining term of the contracts (market value includes accrued interest).

The book value of off-balance sheet derivatives includes accrued interest, equalization payments and premiums paid or received, and translation adjustments, which are already booked in EDF's accounts. The difference between book value and market value is the unrealized deferred gain or loss

The fair value of derivative financial instruments reported off-balance sheet at December 31, 2007 as calculated by EDF is as follows:

(in millions of euros)	Book value	Fair value
Interest rate hedges		
Long-term swaps, caps and floors	(1)	(4)
Exchange rate hedges		
Forward exchange transactions	(76)	(76)
Long-term currency swaps (1)	(217)	51
TOTAL	(294)	(29)

<sup>(1)</sup> Numerous currency swaps have been entered into with EDF International as counterparty, and the foreign exchange positions concerned have been reversed since this subsidiary carries the assets in foreign currencies.



### Off-balance sheet commitments

**35.1** Off-balance sheet commitments given

P.428

••••

35.2 Off-balance sheet commitments received

P.429

At December 31, 2007, off-balance sheet commitments related to operations, financing and investments comprised the following:

	Total	Maturity			
(in millions of euros)		< 1 year	1 to 5 years	> 5 years	
Off-balance sheet commitments given	40,521	6,527	20,972	13,022	
1- Operating commitments					
Commitments related to commercial contracts	28,995	3,881	12,880	12,234	
Commitments related to orders for operating items and fixed assets	5,095	1,774	3,180	141	
Other operating commitments	2,864	706	1,884	274	
2- Financing commitments	3,567	166	3,028	373	
Off-balance sheet commitments received	16,861	5,514	11,133	214	
1- Operating commitments	10,675	5,419	5,052	204	
2- Financing commitments	6,186	95	6,081	10	

## 35.1

### Off-balance sheet commitments given

### 35.1.1 Operating commitments

### **35.1.1.1** COMMITMENTS RELATED TO COMMERCIAL CONTRACTS

### PURCHASE COMMITMENTS

In the course of its generation and supply activities, EDF has entered into long-term and "take or pay" contracts involving commitments to purchase commodities, energy, and gas for periods of up to 20 years.

In almost all cases, these are reciprocal commitments, and the third parties concerned are under an obligation to supply or purchase the quantities specified in the contracts.

At December 31, 2007, firm irrevocable purchase commitments mature as follows (in millions of current euros):

	Total	Maturity		
(in millions of euros)		< 1 year	1 to 5 years	> 5 years
Purchases of electricity	8,466	1,894	2,472	4,100
Purchases of gas and other energies	6,390	577	3,316	2,497
Purchases of nuclear fuels	14,139	1,410	7,092	5,637
COMMITMENTS RELATED TO COMMERCIAL CONTRACTS	28,995	3,881	12,880	12,234

### **Electricity purchases**

Electricity purchase commitments mainly concern:

- Purchases of the electricity generated using bagasse and coal by the Island Energy Systems (IES);
- Hedging contracts. These are forward purchases, for which the volumes and prices are set in contracts with EDF Trading.

In addition, under article 10 of the Law of February 10, 2000, in mainland France EDF is obliged, at the producer's request and subject to compliance with certain technical features, to purchase the power produced by co-

generation plants and renewable energy generation units (wind turbines and small hydro-electric plants) or operations recycling organic waste.

Most of these commitments concern purchases from cogeneration plants, and to a lesser degree purchases from hydropower plants and purchases of energy produced by waste-burning.

The purchase volumes for 2007 totaled 25.3 TWh, including 14.4 TWh for cogeneration, and 3.9 TWh for wind power.

The additional costs generated by this obligation are offset, after validation by the CRE, by the Contribution to the Public Electricity Service (Contribution au Service Public de l'Electricité or CSPE) introduced by Law 2003-8 of January 3, 2003.

### Gas purchases

Gas purchase commitments mostly relate to long-term supply contracts. Purchase commitments for other energies and commodities mainly concern coal and oil used to operate the fossil-fired plants.

### **Nuclear fuel purchases**

Commitments for purchases of nuclear fuel arise from supply contracts for the nuclear plants designed to cover EDF's needs for fuel assembly production, enrichment and fluoration services. The increase in commitments results partly from the signature of new contracts raising the volume and period of coverage of EDF's supply needs, and partly from revaluation of uranium supply costs following an increase in worldwide prices.

### 35.1.1.2 COMMITMENTS RELATED TO ORDERS FOR OPERATING ITEMS AND FIXED ASSETS

These are reciprocal commitments totaling €5,095 million undertaken upon signature of orders for operating items and fixed assets, or orders currently in progress, which include €1,924 million for the construction of the European Pressurized Reactor (EPR) at Flamanville.

#### 35.1.1.3 OTHER OPERATING COMMITMENTS

These mainly concern:

- A contract entered into with CDC Ixis Capital Markets to cover the
  exposure of EDF's electricity distribution network in France to risk of
  storm damage, whereby each party undertakes to indemnify the other
  for any liability connected with issuance of a CAT bond, up to an overall maximum amount of €240 million for each party. This contract,
  signed in 2003 for an initial 5-year period, expires in 2008 and can be
  renewed for a further 5 years. It has not yet been decided whether to
  renew the contract;
- The Group is also committed as lessee to irrevocable operating lease contracts for premises, equipment and vehicles used in the course of its business. The corresponding payments are subject to renegotiation at intervals defined in the contracts.

### 35.1.2 Financing commitments

These are commitments by EDF to subsidiaries, primarily €2,454 million to EDF Energy, and €500 million to EDF Trading.

## 35.2

### Off-balance sheet commitments received

### 35.2.1 Operating commitments

These mainly concern:

- Reciprocal commitments totalling €5,512 million, including €5,095 million on orders for operating items and fixed assets;
- Commitments received from insurance companies to cover risks related to construction of the EPR-type nuclear plant, for €2,843 million;
- Greenhouse gas emission quotas still receivable for the period 2008-2012, at €1,864 million (83 million tonnes of CO<sub>2</sub>).

### 35.2.2 Financing commitments

These principally concern the overall amount of EDF's credit lines (€6,000 million) with various banks.

## Financial statements



Note

### **Environment**

**36.1** Greenhouse gas emission quotas

P.430

••••}

**36.2** Energy savings certificates

P.430

## 36.1

### **Greenhouse gas emission quotas**

EDF has been allocated greenhouse gas emission quotas since 2005.

The company's total quota allocation for 2007 was 23.5 million tonnes, equivalent to the 2006 allocation. The volume of emissions at December 31, 2007 stood at 20 million tonnes (18 million tonnes at December 31, 2006). A €10 million provision was recorded in respect of excess quotas.

The greenhouse gas emission quotas receivable for the period 2008-2012 amount to 16.6 million tonnes a year.

## 36.2

### **Energy savings certificates**

In application of French Law 2005-781 of July 13, 2005 defining the major lines of the national energy policy, which introduced a system of energy savings certificates for legal entities selling electricity, gas, heat or cold to end-users, and CNC emergency committee opinion 2006-D of October 4, 2006 defining the relevant accounting treatment under French GAAP, EDF's financial statements reflect the management of energy savings certificates.

The energy savings obligations required of EDF for the three-year period July 1, 2006 to June 30, 2009 amount to 29,849,302,652 kWh. EDF has organized energy-efficient offers on each market segment in order to achieve the obligations attributed by decision of October 17, 2007.

The 2007 campaigns were supported by two major operations: high-profile communication focusing on energy savings and the reduction of greenhouse gas emissions to support the launch of EDF's "Bleu ciel" brand, and constant commitment to training in areas contributing to improving energy performance by buildings. Based on the revised energy savings commitments, energy savings certificates achieved should be in line with the objective set for the first period.

EDF has been awarded energy savings certificates for a total of 4,537,466,132 KWh, and expects to receive certificates for 229,786,200 KWh in respect of 2007.

## Management compensation

**37** 



The key management personnel are the Chairman of the Board of Directors, the Chief Officers and the external members of the Board of Directors

The total gross compensation paid by EDF (salaries, director's fees and all types of benefits, excluding employer contributions) to the company's key management personnel for 2007 was as follows:

(in euros)	2007	2006
Group's management bodies	3,503,269	2,901,165
Governance bodies	125,250	168,000

## Note

### **Subsequent events**

38



**38.1** Reform of the special electricity and gas sector (IEG) pension system

38.2 EDF bond issue

P.431

P.432

## **38.1**

## Reform of the special electricity and gas sector (IEG) pension system

On January 22, 2008, Decree 2008-69 amending the status of electricity and gas sector (IEG) employees was issued in accordance with the French Pension Guideline Document (*Document d'Orientation sur les Retraites*) of October 10, 2007 and its complement of November 6, 2007, setting forth the first modifications to the special IEG pension system.

The main provisions of this decree concern:

- Prolongation of the employee contribution period to qualify for a fullrate pension, raised to 40 years in 2012; subsequent changes will be identical to those applied in the standard public-sector pension system;
- Reductions and increases in pension rates. The reduction takes the form
  of a financial penalty applied for employees who have not paid contributions over a sufficient period to qualify for a full-rate pension.
  Conversely, the increase is a pension supplement applicable subject to
  certain conditions for employees who continue to work after the age of
  60 and have paid contributions for 160 quarters.

The decree comes into force at July 1, 2008 and is due to be supplemented by further measures resulting from the statutory regulations, covering matters such as introduction of a minimum pension, family and conjugal benefits, pension bonuses, and the possibility of exemption in certain circumstances from the "15-year clause" (currently, 15 years' employment in the sector is the minimum duration to qualify for an IEG pension).

An agreement was signed for the IEG sector on January 29, 2008 as part of this reform, following the principles set forth in the French Pension Guideline Document. This agreement introduces the following support measures for the changes:

- Concerning employees' salaries: a 4.31% increase at January 1, 2008 in the national minimum wage applicable to active and inactive employees, combined in the case of active employees with elimination of the 2.85% pension contribution compensation bonus, and revision of pay scales including rises in starting salaries for operative staff;
- Initial measures related to longer working lives, such as the definition of additional seniority scales and changes in the calculation methods for retirement gratuities.

Like the decree, this agreement will be supplemented by sector-specific or company-specific agreements on points still under negotiation, for example the question of how the system will take into consideration the specificities of different businesses.

As not all factors are known at the year-end, the impact of the reform and the above support measures on EDF's 2008 net income and obligations cannot be accurately determined.

# Financial statements



38.2 EDF bond issue

In January 2008, EDF issued a €1.5 billion bond, placed with French and international institutional investors. The issue is part of the growing centralisation of financing for subsidiaries. It marks a return to the bond mar-

kets for EDF, which last issued bonds in 2004. The issue has a ten-year maturity and forms part of the policy to increase the average duration of debt, which currently stands at six years.

# Statutory Auditors' Report on the financial statements



This is a free translation into English of the Statutory Auditors' Reports issued in the French language and is provided solely for the convenience of English speaking readers. The Statutory Auditors' Report includes for the information of the reader, as required under French Law in any auditor's report, whether qualified or not, an explanatory paragraph separate from and presented below the audit opinion discussing the auditors' assessment of certain significant accounting and audit matters. These assessments were considered for the purpose of issuing an audit opinion on the financial statements taken as a whole and not to provide separate assurance on individual account caption or on information taken outside of the financial statements. The report also includes information relating to the specific verification of information in the group management report.

This report should be read in conjunction with, and is construed in accordance with French Law and professional auditing standards applicable in France.

Year ended December 31, 2007

To the Shareholders.

Following our appointment as statutory auditors by your Annual General Meeting, we hereby report to you for the year ended December 31, 2007 on:

- the audit of the accompanying financial statements of Electricité de France S.A.,
- the justification of our assessments,
- the specific verifications and information required by law.

These financial statements have been approved by the Board of Directors. Our role is to express an opinion on these financial statements, based on our audit.

### 1 OPINION ON THE FINANCIAL STATEMENTS

We conducted our audit in accordance with professional standards applicable in France. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements give a true and fair view of the Company's financial position and its assets and liabilities, as of December 31, 2007 and the results of its operations for the year then ended in accordance with accounting rules and principles applicable in France.

Without qualifying our opinion, we draw your attention to the valuation of long-term provisions relating to nuclear electricity production, as described in notes 1.15 and 28, which results as indicated in note 1.3 from Management best estimates. This valuation is sensitive to the assumptions made concerning costs, inflation rates, long-term discount rates, and forecast cash outflows as well as the results of current negotiations with Areva. Changes in these parameters could lead to a material revision of the level of provisioning.

# **2 JUSTIFICATION OF ASSESSMENTS**

In accordance with the requirements of Article L. 823-9 of the French Commercial Law (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matters:

# Spin-off of ERDF

Note 2.1 to the financial statements describes the terms and conditions of the partial asset transfer made by EDF S.A. to C6, with retroactive effect to January 1, 2007, which has become ERDF, pursuant to the application of the Law of December 7, 2006 on the energy sector. For this reason, financial information for the year ended December 31, 2006 do not compare with that of the 2007 financial statements. We have verified the appropriateness of the presentation and consequences on the annual financial statements for the period in which this transaction took place and the disclosure given in the above-mentioned note.

# Accounting principles and policies

• Notes 1.4, 1.8 and 1.16 to the financial statements describe the principles and policies used for the valuation of revenues related to energy delivered but not yet measured nor billed, valuation of financial investments and valuation of provisions for employee benefits.

As part of our assessment of the Company's accounting principles and methods, we have verified the appropriateness of the accounting methods used by the company and of the information disclosed in the notes to the financial statements, and we verified the accuracy of the implementation of these accounting methods.

• We have verified the appropriateness of the accounting reclassification and estimation changes applied as of December 31, 2007 to comply with measures implemented by the Law of June 28, 2006 related to the management of radioactive materials and waste as disclosed in notes 1.1.5 and 2.2.

As part of our assessment of the Company's accounting principles, we have made an examination of the impact these changes, and of the appropriateness of the related information disclosed in note 28.

## **Accounting estimates**

Notes 1.15 and 28 and 1.16 and 29, respectively, disclose the underlying assumptions on which the valuation of long-term provisions relating to nuclear electricity production and the valuation of provisions and obligations for employee benefits are based.

We have assessed the methodology used by the company and, based on information available, determined whether the policies used for these estimates are reasonable.

The assessments were made in the context of our audit of the financial statements taken as a whole and contributed to the formation of our audit opinion expressed in the first part of this report.

### **3 SPECIFIC VERIFICATIONS AND DISCLOSURES**

We have also performed the specific verifications required by law in accordance with professional standards applicable in France.

We have no matters to report regarding:

- the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors, and in the documents addressed to the shareholders with respect to the financial position and the financial statements,
- the fair presentation of the information given in the management report of the Board of Directors in respect of remunerations and benefits granted to the relevant directors and any commitments given to them in connection with, or after, their appointment, termination or change in function.

In accordance with French law, we ascertained that the information relating to the acquisition of shares and controlling interests and the identity of shareholders were given in the management report.

Paris La Défense and Neuilly-sur-Seine, February 19, 2008

The Statutory Auditors

KPMG Audit
Department of KPMG S.A.

Deloitte & Associés

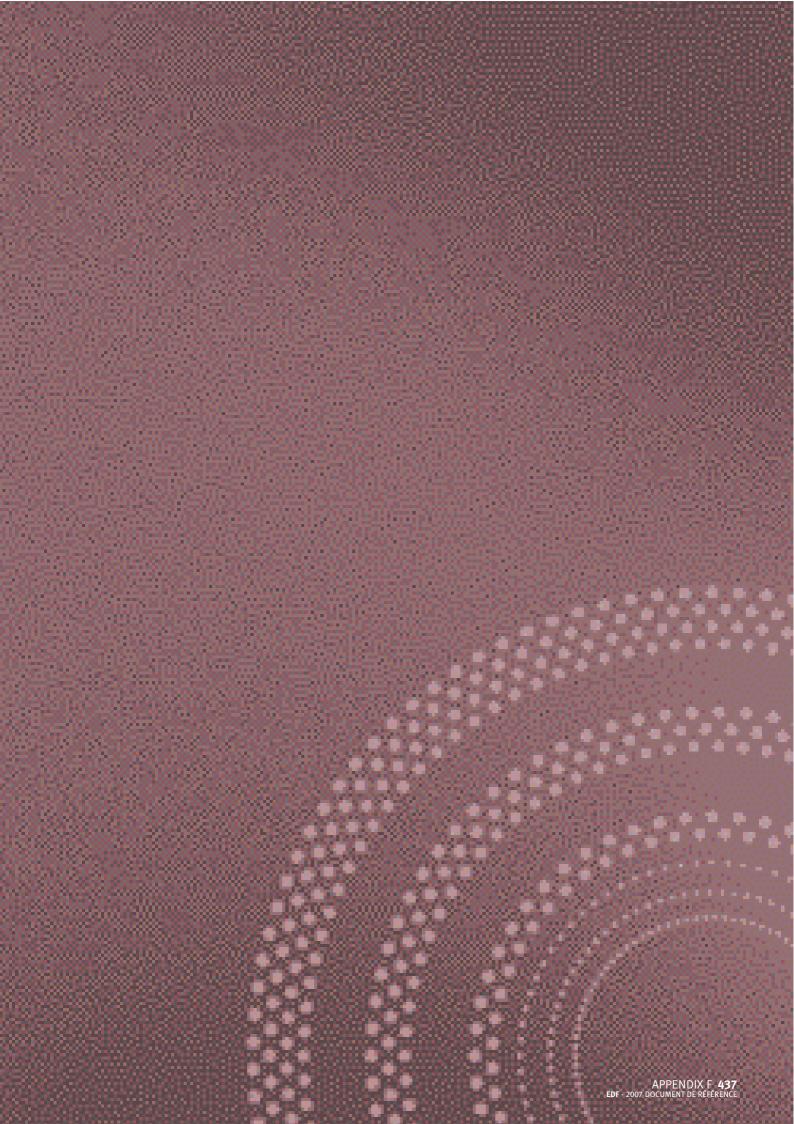
Jean-Luc Decornoy Michel Piette Amadou Raimi Tristan Guerlain

**434** APPENDIX E EDF - 2007 DOCUMENT DE RÉFÉRENCE

[THIS PAGE IS INTENTIONALLY LEFT BLANK]

# APPENDIX F EDF GROUP

Concordance table – annual financial report



# Appendix F



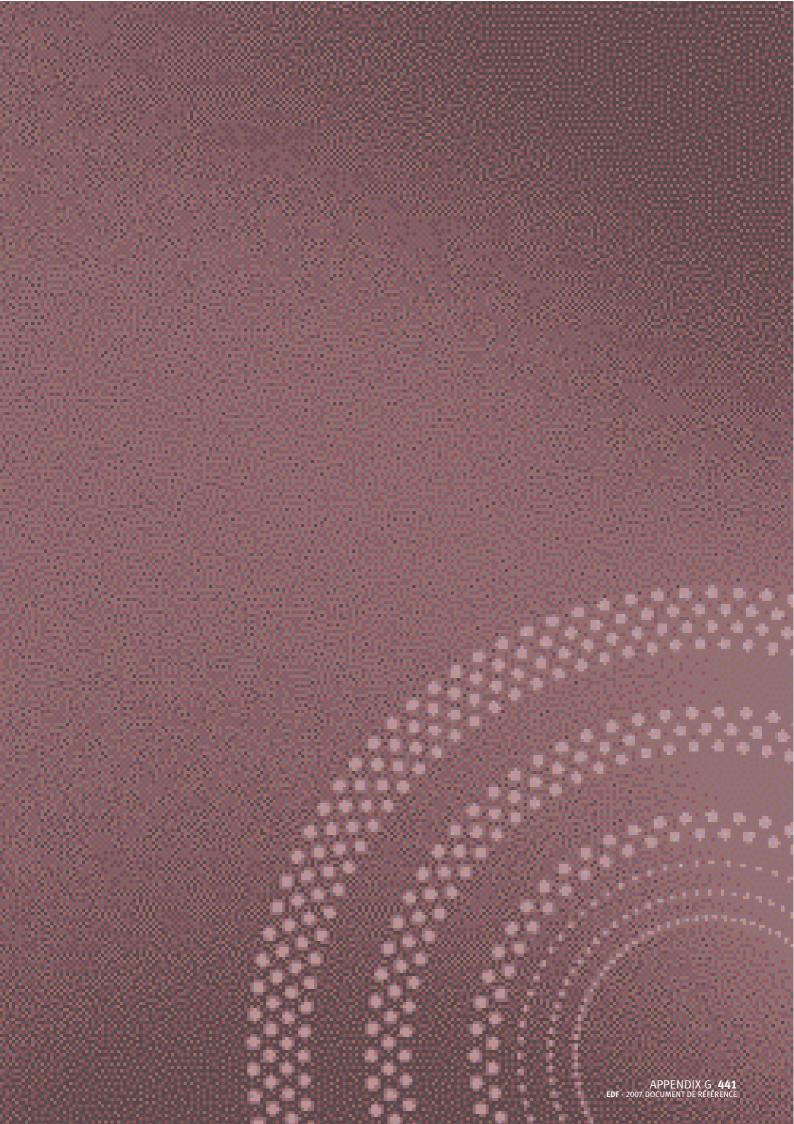
The 2007 annual financial report, prepared pursuant to articles L. 451-1-2 of the French Monetary and Financial Code (*Code monétaire et financier*) and 222-3 of the AMF General Regulations, is composed of *Document de référence* sections referred to in the following table:

	Document de Référence sections
EDF financial statements	Appendix E
EDF Group's consolidated financial statements	Section 20.1
	Chapitre 9 (Group's activities)
	Chapitre 4 (Risks factors)
	Section 21.1.5 (financial authorisations)
	Chapitres 18 et 21 (information relating to share capital structure
Management report	and composition, exercise of the voting rights, directors appointment)
	Chapitre 16 (powers of the Board of Directors)
	Chapitre 15 (Directors' allowance)
	Section 21.1.2 (shares repurchase program)
Certification from the person responsible for the annual financial report	Section 1.2
Statutory Auditors' report on EDF financial statements	Appendix E
Statutory Auditors' report on EDF consolidated financial statements	Section 20.2

[THIS PAGE IS INTENTIONALLY LEFT BLANK]

# APPENDIX G EDF GROUP

Resolutions subject to the extraordinary Shareholders' Meeting on May 20, 2008



# Appendix G



### **A**GENDA

- Board of Directors' report;
- Statutory Auditors' report;
- Approval of the financial statements for the fiscal year ending December 31, 2007;
- Approval of the consolidated financial statements for the fiscal year ending December 31, 2007;
- Application of the result of the fiscal year ending December 31, 2007, as shown in the financial statements, and distribution of dividends: resolution proposed by the EDF's Board of Directors and resolution proposed by the EDF's FCPE Actions's Supervisory Board;
- Agreements governed by article L. 225-38 of the French commercial code;
- Directors' fees awarded to the Board of Directors;
- Delegation of authority given to the Board of Directors to engage transactions over the Company's shares;
- Undertakings referred to in article L. 225-42-1 of the French commercial code;
- Appointment of a Director;
- Powers to accomplish formalities.

# First resolution

# (Approval of the financial statements for the fiscal year ending December 31, 2007)

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Board of Directors' report, as well as the Statutory Auditors' report, gives its approval to the financial statements for the fiscal year ending December 31, 2007, which include the balance sheet, the income statement and the notes to the financial statements, as presented to the shareholders, as well as the transactions reflected in the financial statements and summarized in the abovementioned reports. The shareholders determine that the benefit for the present fiscal year amounts to 4,934,332,855.58 euros.

It is stated that the expenses mentioned in article 223 quater of French taxation code amount to 1,022,463 euros.

## Second resolution

# (Approval of the consolidated financial statements for the fiscal year ending December 31, 2007)

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Board of Directors' report, as well as the Statutory Auditors' report, gives its approval to the consolidated financial statements for the fiscal year ending December 31, 2007, which include the balance sheet, the income statement and the notes to the financial statements, as presented to the shareholders, as well as the transactions reflected in the financial statements and summarized in the abovementioned reports.

# Third resolution

(APPLICATION OF THE RESULT OF THE FISCAL YEAR ENDING DECEMBER 31, 2007, AS SHOWN IN THE FINANCIAL STATEMENTS, AND DISTRIBUTION OF DIVIDENDS)

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Board of Directors' report, as well as the Statutory Auditors' report on the financial statements:

- (i) notes that the profits available for distribution amount to 9,166,587,240.25 euros and decides to allow the payment of a dividend of 1.28 euros per share; and
- (ii) decides to apply the remaining available profits to the item "balance brought forward" (report à nouveau).

The dividend will therefore amount to a maximum of 2,332,378,995.20 euros, excluding the shares that would be owned by the Company at the time of its payment.

Following a Board of Directors' decision dated November 7, 2007, an interim dividend of 0.58 euro per share has been paid on November 30, 2007 for a total amount of 1,056,859,232.20 euros. The balance for distribution thereby amounts to 0.70 euro per share, for a total amount of 1,275,519,763 euros, and will be paid within thirty days following the Shareholders' Meeting.

It is stated that, pursuant to article 158, 3, 2° of the French taxation code, the whole dividend proposed (the interim dividend and the balance) is eligible to the 40% reduction to which individuals domiciled in France and subject to the income tax are entitled, subject to the limits and conditions provided by law.

In the event the Company should own its own shares at the time the dividend is paid, the amount of the dividend corresponding to such shares will be applied to the item "balance brought forward" (report à nouveau).

The dividends paid for the last three financial years have been the followings:

Financial year	Number of shares	Dividend per share	(excluding the shares owned by the Company)
2004	1 625 800 000	0,23 €	373 934 000 € (1)
2005	1 822 171 090	0,79 €	1 439 170 388,51 € (2)
2006	1 822 171 090	1,16 €	2 113 624 504,40 € (2)

[(1) 100 % dividend being eligible to the 50% reduction referred to in article 158, 3, 2° of the French taxation code (dividend paid for the financial year 2004)].

[(2) 100 % dividend being eligible to the 40% reduction referred to in article 158, 3, 2° of the French taxation code (dividend paid for financial years 2005 and 2006)].

# **Resolution A**

(RESOLUTION PROPOSED BY THE SUPERVISORY BOARD OF THE FCPE ACTIONS EDF RELATING TO THE APPLICATION OF THE RESULT OF THE FISCAL YEAR ENDING DECEMBER 31, 2007, AS SHOWN IN THE FINANCIAL STATEMENTS, AND DISTRIBUTION OF DIVIDENDS. THIS DRAFT RESOLUTION WAS REVIEWED BY THE BOARD OF DIRECTORS OF EDF DURING ITS APRIL 3, 2008 MEETING, AND WAS NOT APPROVED.)

## Resolution proposed by the Supervisory Board of the FCPE

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Board of Directors' report, as well as the Statutory Auditors' report on the financial statements:

- (i) notes that the profits available for distribution amount to 9,166,587,240.25 euros and decides to allow the payment of a dividend of 0.84 euro per share; and
- (ii) decides to apply the remaining available profits to the item "balance brought forward" (report à nouveau).

The dividend will therefore amount to a maximum of 1,539,370,136.83

euros, excluding the shares that would be owned by the Company at the time of its payment.

Takan dibida ada di dasa

Following a Board of Directors' decision dated November 7, 2007, an interim dividend of 0.58 euro per share has been paid on November 30, 2007 for a total amount of 1,056,859,232.20 euros. The balance for distribution thereby amounts to 0.26 euro per share, for a total amount of 482,510,904.63 euros, and will be paid within thirty days following the Shareholders' Meeting.

It is stated that, pursuant to article 158, 3, 2° of the French taxation code, the whole dividend proposed (the interim dividend and the balance) is eligible to the 40% reduction to which individuals domiciled in France and subject to the income tax are entitled, subject to the limits and conditions provided by law.

In the event the Company should own its own shares at the time the dividend is paid, the amount of the dividend corresponding to such shares will be applied to the item "balance brought forward" (report à nouveau).

The dividends paid for the last three financial years have been the followings:

Financial year	Number of shares	Dividend per share	Total dividend paid (excluding the shares owned by the Company)
2004	1 625 800 000	0,23 €	373 934 000 € (1)
2005	1 822 171 090	0,79 €	1 439 170 388,51 € (2)
2006	1 822 171 090	1,16 €	2 113 624 504,40 € (2)

[(1) 100 % dividend being eligible to the 50% reduction referred to in article 158, 3, 2° of the French taxation code (dividend paid for the financial year 2004)].

[(2) 100 % dividend being eligible to the 40% reduction referred to in article 158, 3, 2° of the French taxation code (dividend paid for financial years 2005 and 2006)].

# Fourth resolution

# (Agreements governed by article L. 225-38 of the French commercial code) $\,$

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Statutory Auditors' report on the agreements governed by article L. 225-38 of the French commercial code, acknowledges the conclusions of this report and approves the agreements referred to in it.

# Fifth resolution

# (DIRECTORS' FEES AWARDED TO THE BOARD OF DIRECTORS)

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Board of Directors' report, determines that the amount of directors' fees awarded to the members of the Board of Directors for the present and the following fiscal years, will be of 174,000 euros, unless otherwise determined by a future Shareholders' Meeting.



# Sixth resolution

(DELEGATION OF AUTHORITY GIVEN TO THE BOARD OF DIRECTORS TO ENGAGE TRANSACTIONS OVER THE COMPANY'S SHARES)

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Board of Directors' report and in accordance with the provisions of articles L. 225-209 seq of the French commercial code.

- decides to terminate immediately, the unused portion of the delegation of authority to buy the Company's shares given by the shareholders' meeting held on May 24, 2007 in its seventh resolution;
- authorizes the Board of Directors to buy Company's shares in order to:
  - grant such shares in the event of the exercise of convertible debt securities that should give access through any means, immediately or in the future, to Company's shares, as well as to carry out hedging transactions resulting from EDF's (or one of its subsidiaries) obligations in relation to such securities, in accordance with the conditions defined by stock exchange market authorities at the time the Board of Directors, or by any person having received an authority delegation from the Board decides to do so, makes the decision;
  - hold the shares to be able to give them in exchange or in payment in the event of future external growth transactions;
- assure the liquidity of EDF's shares through a financial intermediary by entering into a liquidity agreement that complies to the ethics chart recognized by the French regulator ("Autorité des Marchés Financiers");
- grant such shares to the employees of EDF group, in particular in connection with any free grant of shares or share purchase plan for the benefit of the employees, subject to compliance to the conditions provided by law, namely, by articles L. 225-197-1 seq of the French commercial code or articles L. 443-1 seq of the French labor code, as well as to carry out related hedging transactions, in accordance with the conditions defined by Stock exchange market authorities at the time Board of Directors, or any person having received an authority delegation from the Board, makes the decision;
- reduce the Company's share capital by canceling in whole or in part, the repurchased Company's securities.

The repurchase of Company's shares is subject to the following limits:

- the number of shares purchased by the Company until the expiration of the repurchase program cannot exceed 10% of the all the shares of the share capital at the time of the present Shareholders' meeting; and
- the number of repurchased shares owned by the Company at any time may not exceed 10% of all the shares of the share capital at such

The acquisition or the transfer of such shares can be effected through any means, in particular through a regulated exchange or in an over the-counter market, including through the purchase or the sale of blocks of shares, the use of derivatives or options, or by carrying out optional strategies, subject to the terms and conditions, namely relating to volume and price, provided by the regulations in force at the time of the contemplated transactions, the conditions defined by Stock exchange market authorities and at the time the Board of Directors, or any person having received an authority delegation from the Board, makes the decision.

The number of shares that can be acquired or transferred by block trade through the repurchase program is not limited.

Decides that the maximum amount of funds allocated to the repurchase program will be 2 billion euros.

The purchase price of the shares acquired pursuant to the repurchase program cannot exceed 100 euros per share.

The Board of Directors may nevertheless adjust the purchase price mentioned above in the event of an incorporation of premiums, reserves or profits, leading to either an increase in the par value of the shares, or to the creation and issue of bonuses, as well as in the event of a division of the par value or of a consolidation of shares or any other transactions relating to equity in order to take into account the impact of these transactions on the par value of the shares.

Decides that the present delegation of authority is granted for a period of no more than 18 months, starting from the present Shareholders' Meeting. This delegation can be used during a take over bid, within the limits of the applicable regulations.

The number of the shares acquired by the Company for the purpose of keeping them or granting them in payment or in exchange in the event of merger, spin-off or contribution cannot exceed 5% of its share capital.

Decides that the Board of Directors will have full power, with the authority to delegate, to implement the present delegation of authority to the following purposes:

- Order any purchase or sale of securities on the regulated market or outside the regulated market;
- Apply or reapply the purchased shares to the different purposes pursued under the applicable laws and regulations;
- Enter into any agreement related to, in particular, the holding of the shareholders' register;
- Carry out all declarations and formalities before the *Autorité des Marchés Financiers* and any other authority; and
- Accomplish all formalities and in general, take all necessary action.

The Board of Directors shall annually inform the Shareholders' Meeting of the transactions carried out under the present resolution.

# **Seventh resolution**

(UNDERTAKINGS REFERRED TO IN ARTICLE L. 225-42-1 OF THE FRENCH COMMERCIAL CODE)

The Shareholders' Meeting, acting in accordance with the quorum and majority requirements applicable to Ordinary Shareholders' Meetings, after having acknowledged the Board of Directors' report, as well as the Statutory Auditors' report on the undertakings referred to in article L. 225-42-1 of the French commercial code, acknowledges the conclusions of this report and approves the agreements referred therein concerning Mr. Daniel CAMUS.

# **Eighth resolution**

### (APPOINTMENT OF MR. BRUNO LAFONT AS DIRECTOR)

The Shareholders' Meeting acknowledges Mr. Louis Schweitzer's resignation of his office as Director appointed by the Shareholders' Meeting, and, acting in accordance with the quorum and majority requirements

applicable to ordinary shareholders' Meetings and after having acknowledged the Board of Directors' report, appoints Mr. Bruno LAFONT as Director for the period until the renewal of the entire Board, i.e until November 22, 2009 included.

# **Ninth resolution**

# (Powers to accomplish formalities)

All powers are given to the bearer of an original, a copy or an extract of the minutes of this Shareholders' Meeting to carry out all legal or administrative formalities and all filings and any publications provided by the legislation in force.



22-30, avenue de Wagram 75382 Paris Cedex 08 edf.com

DESIGN
SEQUOIA

AND

CREATION

**BOWNE** Y01865