EDF GROUP

FINANCIAL REPORT 2012

2012
Financial Report

Financial information on assets, the financial statements and results of the Company

(These financial statements will be submitted for approval by the general Shareholders' Meeting of 30 May, 2013)

Consolidated income statements

(in millions of Euros)	Notes	**2012**	2011 (1)
Sales	7	72,729	65,307
Fuel and energy purchases	8	(37,098)	(30,195)
Other external expenses	9	(10,087)	(9,931)
Personnel expenses	10	(11,624)	(10,802)
Taxes other than income taxes	11	(3,287)	(3,101)
Other operating income and expenses	12	5,451	3,661
Operating profit before depreciation and amortisation		**16,084**	**14,939**
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities		(69)	(116)
Net depreciation and amortisation		(6,849)	(6,285)
Net increases in provisions for renewal of property, plant and equipment operated under concessions		(164)	(221)
(Impairment)/reversals	13	(752)	(640)
Other income and expenses	14	(5)	775
Operating profit		**8,245**	**8,452**
Cost of gross financial indebtedness	15.1	(2,443)	(2,271)
Discount effect	15.2	(3,285)	(3,064)
Other financial income and expenses	15.3	2,366	1,555
Financial result	**15**	**(3,362)**	**(3,780)**
Income before taxes of consolidated companies		**4,883**	**4,672**
Income taxes	16	(1,586)	(1,336)
Share in income of associates	23	260	51
GROUP NET INCOME		**3,557**	**3,387**
EDF net income		**3,316**	**3,148**
Net income attributable to non-controlling interests		**241**	**239**
Earnings per share (EDF share) in Euros:	**17**		
Earnings per share		1.80	1.70
Diluted earnings per share		1.80	1.70

(1) Figures for 2011 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits (see note 2).

Statements of net income and gains and losses recorded directly in equity

(in millions of Euros)	Notes	2012 EDF net income	2012 Net income attributable to non-controlling interests	2012 Total	2011 [1] EDF net income	2011 [1] Net income attributable to non-controlling interests	2011 [1] Total
Group net income		**3,316**	**241**	**3,557**	**3,148**	**239**	**3,387**
Gross change in fair value of available-for-sale financial assets [2]		937	-	937	(660)	-	(660)
Related tax effect		(351)	-	(351)	176	-	176
Change in fair value of available-for-sale financial assets	36.2.2	*586*	-	*586*	*(484)*	-	*(484)*
Gross change in fair value of hedging instruments [2]		(782)	20	(762)	(1,303)	43	(1,260)
Related tax effect		160	(9)	151	275	(14)	261
Change in fair value of hedging instruments	41.4	*(622)*	*11*	*(611)*	*(1,028)*	*29*	*(999)*
Gross change in actuarial gains and losses on post-employment benefits		(4,952)	54	(4,898)	(768)	(23)	(791)
Related tax effect		657	(13)	644	268	2	270
Change in actuarial gains and losses on post-employment benefits		*(4,295)*	*41*	*(4,254)*	*(500)*	*(21)*	*(521)*
Translation adjustments		*446*	*82*	*528*	*578*	*35*	*613*
Gains and losses recorded directly in equity		(3,885)	134	(3,751)	(1,434)	43	(1,391)
NET INCOME AND GAINS AND LOSSES RECORDED DIRECTLY IN EQUITY		**(569)**	**375**	**(194)**	**1,714**	**282**	**1,996**

(1) Figures for 2011 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits (see note 2).
(2) Gross changes in fair value transferred to income in respect of available-for-sale financial assets and hedging instruments are presented in notes 36.2.2 et 41.4 respectively.

Consolidated balance sheets

ASSETS

(in millions of Euros)	Notes	**31/12/2012**	31/12/2011 [1]
Goodwill	18	10,412	11,648
Other intangible assets	19	7,625	4,702
Property, plant and equipment operated under French public electricity distribution concessions	20	47,222	45,501
Property, plant and equipment operated under concessions for other activities	21	7,182	6,022
Property, plant and equipment used in generation and other tangible assets owned by the Group	22	67,838	60,445
Investments in associates	23	7,555	7,544
Non-current financial assets	36	30,471	24,260
Deferred tax assets	16.3	3,487	3,159
Non-current assets		**181,792**	**163,281**
Inventories	24	14,213	13,581
Trade receivables	25	22,497	20,908
Current financial assets	36	16,433	16,980
Current tax assets		582	459
Other receivables	26	8,486	10,309
Cash and cash equivalents	37	5,874	5,743
Current assets		**68,085**	**67,980**
Assets classified as held for sale	46	**241**	**701**
TOTAL ASSETS		**250,118**	**231,962**

(1) Figures for 2011 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits (see note 2).

EQUITY AND LIABILITIES

(in millions of Euros)	Notes	**31/12/2012**	31/12/2011 (1)
Capital	27	924	924
EDF net income and consolidated reserves		24,934	27,559
Equity (EDF share)		**25,858**	**28,483**
Equity (non-controlling interests)		4,854	4,189
Total equity	**27**	**30,712**	**32,672**
Provisions related to nuclear generation – Back-end nuclear cycle, plant decommissioning and last cores	29	39,185	37,198
Provisions for decommissioning of non-nuclear facilities	30	1,090	809
Provisions for employee benefits	31	19,540	14,611
Other provisions	32	1,873	1,338
Non-current provisions	***28***	***61,688***	***53,956***
Special French public electricity distribution concession liabilities	33	42,551	41,769
Non-current financial liabilities	38.1	46,980	42,688
Other non-current liabilities	35	4,218	4,989
Deferred tax liabilities	16.3	5,601	4,479
Non-current liabilities		**161,038**	**147,881**
Current provisions	28	3,894	4,062
Trade payables	34	14,643	13,681
Current financial liabilities	38.1	17,521	12,789
Current tax liabilities		1,224	571
Other current liabilities	35	21,037	19,900
Current liabilities		**58,319**	**51,003**
Liabilities related to assets classified as held for sale	46	**49**	**406**
TOTAL EQUITY AND LIABILITIES		**250,118**	**231,962**

(1) Figures for 2011 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits (see note 2).

Consolidated cash flow statements

(in millions of Euros)	Notes	2012	2011 [1]
Operating activities:			
Income before taxes of consolidated companies		4,883	4,672
Impairment (reversals)		752	640
Accumulated depreciation and amortisation, provisions and changes in fair value		9,197	7,210
Financial income and expenses		944	1,117
Dividends received from associates		201	334
Capital gains/losses		(443)	(737)
Change in working capital	43.1	(2,390)	(1,785)
Net cash flow from operations		*13,144*	*11,451*
Net financial expenses disbursed		(1,634)	(1,623)
Income taxes paid		(1,586)	(1,331)
Net cash flow from operating activities		9,924	8,497
Investing activities:			
Investments, net of cash acquired/transferred [2]		20	3,624
Investments in intangible assets and property, plant and equipment	43.2	(13,386)	(11,134)
Net proceeds from sale of intangible assets and property, plant and equipment		748	497
Changes in financial assets		(1,792)	222
Net cash flow used in investing activities		(14,410)	(6,791)
Financing activities:			
Transactions with non-controlling interests [3]		(1,038)	(1,324)
Dividends paid by parent company	27.3	(2,125)	(2,122)
Dividends paid to non-controlling interests		(230)	(261)
Purchases/sales of treasury shares	27.2	(15)	(14)
Cash flows with shareholders		*(3,408)*	*(3,721)*
Issuance of borrowings		12,431	5,846
Repayment of borrowings		(4,869)	(4,071)
Funding contributions received for assets operated under concessions		190	194
Investment subsidies		313	161
Other cash flows from financing activities		*8,065*	*2,130*
Net cash flow from financing activities		4,657	(1,591)
Net increase/(decrease) in cash and cash equivalents		171	115
CASH AND CASH EQUIVALENTS - OPENING BALANCE		**5,743**	**5,567**
Net increase/(decrease) in cash and cash equivalents		171	115
Effect of currency fluctuations		(44)	54
Financial income on cash and cash equivalents		38	44
Effect of reclassifications		(34)	(37)
CASH AND CASH EQUIVALENTS - CLOSING BALANCE	**37**	**5,874**	**5,743**

(1) Figures for 2011 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits (see note 2).

(2) The impact of disposal of the investment in EnBW during 2011 amounts to €3.8 billion (payment received of €4.5 billion net of €738 million cash transferred).

(3) Contributions via capital increases or reductions and acquisitions of additional interests in controlled companies.
In 2012, payments made for transactions with non-controlling interests include the acquisition of additional interests in the Edison group following the mandatory public offer finalised on 6 September 2012 for €(869) million, and in ERSA following the acquisition of EnBW's investment in that subsidiary on 16 February 2012 for €(252) million (see notes 3.1 and 5.1.1 respectively).
In 2011, €(1,462) million was paid for the acquisition of additional interests in EDF Énergies Nouvelles.

Changes in consolidated equity

(in millions of Euros)	Capital	Treasury shares	Translation adjustments	Impact of fair value adjustment of financial instruments (1)	Other consolidate reserves and net income	**Equity (EDF share)**	Equity (share attributable to non-controlling interests)	**Total equity**
Equity at 31/12/2010	**924**	**(19)**	**543**	**400**	**29,469**	**31,317**	**5,586**	**36,903**
Restatements due to change of method (2)	-	-	26	-	(1,697)	(1,671)	(121)	(1,792)
Equity at 31/12/2010 (restated)	**924**	**(19)**	**569**	**400**	**27,772**	**29,646**	**5,465**	**35,111**
Gains and losses recorded directly in equity	-	-	578	(1,512)	(500)	(1,434)	43	(1,391)
Net income	-	-	-	-	3,148	3,148	239	3,387
Net income and gains and losses recorded directly in equity	-	-	**578**	**(1,512)**	**2,648**	**1,714**	**282**	**1,996**
EDF capital increase (3)	6	(324)	-	-	300	(18)	-	(18)
EDF capital reduction (3)	(6)	324	-	-	(318)	-	-	-
Dividends paid	-	-	-	-	(2,122)	(2,122)	(262)	(2,384)
Purchases/sales of treasury shares	-	(7)	-	-	-	(7)	-	(7)
Other changes (4)	-	-	-	39	(769)	(730)	(1,296)	(2,026)
Equity at 31/12/2011 (restated)	**924**	**(26)**	**1,147**	**(1,073)**	**27,511**	**28,483**	**4,189**	**32,672**
Gains and losses recorded directly in equity	-	-	446	(36)	(4,295)	(3,885)	134	(3,751)
Net income	-	-	-	-	3,316	3,316	241	3,557
Net income and gains and losses recorded directly in equity	-	-	**446**	**(36)**	**(979)**	**(569)**	**375**	**(194)**
Dividends paid	-	-	-	-	(2,125)	(2,125)	(231)	(2,356)
Purchases/sales of treasury shares	-	(7)	-	-	-	(7)	-	(7)
Other changes (5)	-	-	-	-	76	76	521	597
EQUITY AT 31/12/2012	**924**	**(33)**	**1,593**	**(1,109)**	**24,483**	**25,858**	**4,854**	**30,712**

(1) These changes correspond to the effects of fair value adjustment of available-for-sale financial assets and amounts transferred to income following changes in their fair value, and the effects of fair value adjustment of financial instruments hedging cash flows and net foreign investments and amounts transferred to income in respect of terminated contracts. For details see the statement of net income and gains and losses recorded directly in equity.

(2) Figures at 31 December 2011 and 31 December 2010 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits (see note 2).

(3) EDF's capital increase and capital reduction operations relate to the simplified alternative public cash or exchange offer for shares of EDF Énergies Nouvelles.

(4) Other changes (EDF's share and the share attributable to non-controlling interests) include €(716) million and €(764) million respectively reflecting the effects of acquisition of minority shareholdings in EDF Énergies Nouvelles. Other changes in equity attributable to non-controlling interests also include the effects of deconsolidation of EnBW, amounting to €(519) million.

(5) In 2012, other changes attributable to non-controlling interests include €406 million corresponding to the effects of the takeover of Edison and the mandatory public offer (EDF holds 97.4% ownership at 31 December 2012), of which €266 million are indirect non-controlling interests (see note 3.1).

Contents

Notes to the consolidated financial statements

Notes to the consolidated financial statements

Électricité 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 companies directly or indirectly under the exclusive control of the Company and its subsidiaries, which are fully consolidated, the accounts of jointly-controlled companies (joint ventures), which are proportionally consolidated, and the accounts of companies in which the Company exercises significant influence (associates), which are accounted for under the equity method. All these economic entities are collectively referred to as the "Group".

The Group is an integrated energy operator engaged in all aspects of the energy business: generation, transmission, distribution, supply and trading of energies.

The Group's consolidated financial statements at 31 December 2012 were prepared under the responsibility of the Board of Directors and approved by the Directors at the Board meeting held on 13 February 2013. They will become final after approval at the General Shareholders' Meeting to be held on 30 May 2013.

↗ Note 1 Group accounting standards

1.1 Declaration of conformity and Group accounting policies

Pursuant to European regulation 1606/2002 of 19 July 2002 on the adoption of international accounting standards, the EDF group's consolidated financial statements for the year ended 31 December 2012 are prepared under the international accounting standards published by the IASB and approved by the European Union for application at 31 December 2012. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and SIC and IFRIC interpretations.

The comparative figures for 2011 reported in the notes to the financial statements have been restated as a result of the change in accounting method for actuarial gains and losses on post-employment benefits (see note 2).

1.2 Changes in accounting methods at 31 December 2012

Apart from the changes indicated below, the accounting and valuation methods applied by the Group in the consolidated financial statements for the year ended 31 December 2012 are identical to those used in the consolidated financial statements for the year ended 31 December 2011.

1.2.1 Accounting changes introduced in the consolidated financial statements at 31 December 2012

- Change of accounting option concerning recognition of actuarial gains and losses on post-employment benefits

IAS 19 allows the following methods for recognition of actuarial gains and losses on post-employment defined benefit plans:

  - either the full amount of such gains and losses, or a portion as determined under the "corridor" method, is recorded through the income statement; the Group applied this approach until 31 December 2011;
  - or they are recorded in full through other components of net income and gains and losses recorded directly in equity.

The Group decided to use the option to record actuarial gains and losses for post-employment benefits in the statement of net income and gains and losses recorded directly in equity from 1 January 2012. The Group considers that this change will make information on post-employment benefits clearer and more comprehensible.

This change of accounting method is applied retrospectively, as required by IAS 8. Note 2 presents a description of this change of accounting method and calculations of its main effects.

- Disclosures on transfers of financial assets

The amendment to IFRS 7, "Financial instruments: disclosures – Transfers of financial assets" adopted by the European Union in 2011 became mandatory on 1 January 2012.

In application of this amendment, the EDF group's financial statements now include additional disclosures concerning transfers of derecognised financial assets, so that readers can assess the nature of the Group's involvement in these derecognised assets, and the associated risks.

As IFRS 7 concerns disclosures, this amendment has no impact on the accounting methods applied in the consolidated financial statements.

1.2.2 Standards and amendments adopted by the European Union in 2012 but not yet mandatory and not applied early by the Group

The Group is currently assessing the potential impact of the following standards, which were adopted by the IASB in 2011:

- IFRS 10 "Consolidated financial statements";
- IFRS 11 "Joint arrangements";
- IFRS 12 "Disclosure of interests in other entities';
- IAS 27 (2011) "Individual financial statements";
- IAS 28 (2011) "Investments in associates and joint ventures".

Based on the analyses conducted to date, the Group concludes that application of the following standards, interpretations and amendments will not have any significant impact:

- IFRS 13 "Fair value measurement»;
- IFRIC 20 "Stripping Costs in the Production Phase of a Surface Mine";
- amendments to IAS 1 entitled "Presentation of items of other comprehensive income (OCI)";
- amendments to IAS 12 entitled "Deferred Tax: Recovery of Underlying Assets";
- amendments to IAS 19 entitled "Employee benefits" on defined-benefit plans;
- amendments to IFRS 1 entitled "Severe hyperinflation and removal of fixed dates for first-time adopters";
- amendments to IAS 32 on Offsetting Financial Assets and Financial Liabilities;
- amendments to IFRS 7 on disclosures concerning offsetting of financial assets and financial liabilities.

1.2.3 Other standards not applied early by the Group

The Group has not applied the following standards, amendments and interpretations, which are expected to be approved by the European Union in 2013 at the earliest:

- amendments to IFRS 1 entitled "Government loans";
- annual improvements to IFRS (2009-2011);
- amendments to IFRS 10, 11 and 12 on "Transition guidance";
- amendments to IFRS 10 and 12 and IAS 27 on "Investment entities".

The potential impact of these amendments is currently being evaluated by the Group.

Finally, as part of the ongoing overhaul of IAS 39, the IASB released a new standard, IFRS 9, "Financial instruments – Phase 1, Classification and Measurement" in November 2009, then an amended version in October 2010. In December 2011 the application date of this new standard was deferred to 1 January 2015, and it is therefore not applicable at 31 December 2012.

1.3 Summary of the principal accounting and valuation methods

The following accounting methods have been applied consistently through all the periods presented in the consolidated financial statements.

1.3.1 Valuation

The consolidated financial statements are based on historical cost valuation, with the exception of certain assets acquired and liabilities assumed through business combinations, and certain financial instruments, which are stated at fair value.

1.3.2 Management judgments 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, considering positive and negative contingencies existing at year-end. The figures in the Group's future financial statements could differ significantly 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.

In a context characterised by financial market volatility, the parameters used to prepare estimates are based on macro-economic assumptions appropriate to the very long-term cycle of Group assets.

1.3.2.1 Nuclear provisions

The measurement of provisions for the back-end of the 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.

The main assumptions and sensitivity analyses are presented in note 29.1.5.

1.3.2.2 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 all the actuarial assumptions used, particularly concerning discount rates and wage increase rates.

The principal actuarial assumptions used to calculate these post-employment and long-term benefits at 31 December 2012 are presented in note 31. These assumptions are updated annually. The Group considers the actuarial assumptions used at 31 December 2012 appropriate and well-founded, but future changes in these assumptions could have a significant effect on the amount of the obligations and the Group's equity and net income. Sensitivity analyses are therefore presented in note 31.

1.3.2.3 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 – particularly concerning energy price movements – and medium-term financial forecasts. The Group therefore revises the underlying estimates and assumptions based on regularly updated information.

These assumptions, which are specific to the Group, are presented in note 13.

1.3.2.4 Financial instruments

In measuring the fair value of unlisted financial instruments (essentially energy contracts), the Group uses valuation models based on a certain number of assumptions subject to unforeseeable developments.

1.3.2.5 Energy supplied but not yet measured and billed

As explained in note 1.3.7, the quantities of energy supplied but not yet measured and billed are calculated at the reporting date based on consumption statistics and selling price estimates. Determination of the unbilled portion of sales revenues at the year-end is sensitive to the assumptions used to prepare these statistics and estimates.

1.3.2.6 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 concession assets in the balance sheet at a value based on 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 present value of future payments necessary to replace 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 1.3.24 for information. Whatever valuation method is used, measurement of the concession liability concerning assets to be replaced is notably subject to unforeseeable developments in terms of cost, useful life and disbursement dates.

1.3.2.7 Deferred tax assets

The use of estimates and assumptions over recovery horizons is particularly important in the recognition of deferred tax assets.

1.3.2.8 Other judgments

When there is no standard or interpretation applicable to a specific transaction, the Group exercises judgment to define and apply accounting methods that supply relevant and reliable information for preparation of its financial statements.

1.3.3 Consolidation methods

Subsidiaries are companies in which the Group has exclusive control and are fully consolidated. Exclusive control means the power to govern a company'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 is the contractually agreed sharing of control over a company run jointly by a limited number of partners or shareholders, such that the financial and operating policies require their unanimous consent.

Associates are entities in which the Group exercises significant influence over financial and operating policies, without having exclusive or joint control. 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 associates".

All internal transactions between consolidated companies, including realised internal profits, are eliminated.

A list of subsidiaries, joint ventures and associates is presented in note 52.

1.3.4 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 given by the Group to purchase minority interests in Group-controlled companies are included in liabilities. For commitments of this kind given since 1 January 2010, the differential between the value of the minority interests and the liability corresponding to the commitment is recorded in equity.

The income statement presents items by nature. The heading "Other income and expenses" presented below the operating profit before depreciation and amortisation comprises items of an unusual nature or amount.

In the cash flow statements, cash flows related to operating activities are presented under the indirect method.

1.3.5 Translation methods

1.3.5.1 Reporting currency

The Group's financial statements are presented in Euros, the parent company's functional currency. All financial data are rounded up or down to the nearest million.

1.3.5.2 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.

1.3.5.3 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 recognised in equity under the heading "Translation adjustments".

Translation adjustments 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 recognised as income or expenses in the income statement, in the same way as other exchange differences concerning the company.

1.3.5.4 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.

1.3.6 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.

1.3.7 Sales

Sales essentially comprise income from energy sales, connections and other services, which mainly include energy transmission and distribution, and capacity and interconnection auctions.

The Group accounts for sales when:

- there is a proven contractual relationship;
- delivery has taken place (or the service has been completed);
- 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 supplied but not yet measured and 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 recognised net of purchases.

1.3.8 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 recognised 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 realised 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 in accounting for changes in actuarial gains and losses or fair value on 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 recognised when it is probable that the Group will have sufficient taxable profit to utilise the benefit of the asset in the foreseeable future, or beyond that horizon, if there are deferred tax liabilities with the same maturity.

1.3.9 Earnings per share 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.).

1.3.10 Business combinations

The Group has applied revised IFRS 3 since 1 January 2010, and accordingly business combinations arising since that date are recorded under the new acquisition method.

At the date of acquisition, the identifiable assets acquired and liabilities assumed, measured at fair value, and any non-controlling interests in the company acquired (minority interests) are recorded separately from goodwill.

Non-controlling interests may be valued either at fair value (total goodwill method) or their share in the fair value of the net assets of the acquired company (partial goodwill method). The decision is made individually for each transaction.

Any acquisition or disposal of an investment that does not affect control and takes place after the business combination is considered as a transaction between shareholders and must be recorded directly in equity in application of amended IAS 27.

If additional interests in an associate are acquired without resulting in acquisition of control, the value of previously acquired assets and liabilities remains unchanged in the consolidated accounts.

If control is acquired in stages, the cost of the business combination includes the fair value, at the date control is acquired, of the purchaser's previously-held interest in the acquired company.

Related costs directly attributable to an acquisition leading to control are treated as expenses for the periods in which they were incurred, except for issuance costs for debt securities or equity instruments, which must be recorded in compliance with IAS 32 and IAS 39.

Revised IFRS 3 does not apply to common control business combinations, which are examined on a case-by-case basis to determine the appropriate accounting treatment.

1.3.11 Goodwill and other intangible assets

1.3.11.1 Goodwill

1.3.11.1.1 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 acquired and liabilities assumed from 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 finalised within twelve months of the acquisition.

1.3.11.1.2 Measurement and presentation of goodwill

Goodwill on acquisition of subsidiaries or joint ventures is disclosed separately in the balance sheet. Impairment on this goodwill is reported under the heading "Impairment" 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 associates".

Goodwill is not amortised, but impairment tests are carried out as soon as there is an indication of possible loss of value, and at least annually, as described in note 1.3.15.

After initial recognition, goodwill is carried at cost less any impairment recognised.

1.3.11.2 Other intangible assets

1.3.11.2.1 Research and development expenses

Research expenses are recognised as expenses in the financial period incurred.

Project development expenses are capitalised 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.

Capitalised development costs are amortised on a straight-line basis over the foreseeable useful life.

1.3.11.2.2 Other self-produced or purchased intangible assets

Other intangible assets mainly comprise:

- software, which is amortised on a straight-line basis over its useful life;
- purchased brands with an indefinite useful life, or amortised on a straight-line basis over their useful life;
- operating or usage rights for power plants, which are amortised on a straight-line basis over the useful life of the underlying asset;
- rights or licenses relating to hydrocarbon concessions, which are amortised under the Unit Of Production (UOP) method;
- intangible assets related to environmental regulations (greenhouse gas emission rights and renewable energy certificates acquired for a consideration – see note 1.3.27);

- the positive value of energy purchase/sale contracts stated at fair value as part of a business combination governed by revised IFRS 3: this value is amortised as the contractual deliveries take place.

1.3.11.2.3 Hydrocarbon prospecting, exploration and generation

The Group applies IFRS 6, "Exploration for and Evaluation of Mineral Resources".

Prospection and exploration costs and costs incurred in connection with geological surveys, exploration tests, geological and geophysical mapping and exploratory drilling are recognised as intangible assets and fully amortised in the year they are incurred.

Development costs related to commercially viable mineral wells and investments in facilities to extract and store hydrocarbons are recognised as "Property, plant and equipment used in generation and other tangible assets owned by the Group" or "Property, plant and equipment operated under concessions for other activities" as appropriate.

They are amortised under the UOP ("Unit Of Production") method.

1.3.12 Concession assets, generation assets and other property, plant and equipment

The Group's property, plant and equipment is reported under three balance sheet headings, as appropriate to the business and contractual circumstances of their use:

- 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.

1.3.12.1 Initial measurement

Property, plant and equipment is recorded at acquisition or production cost.

The cost of facilities developed in-house includes all labour and materials costs, and all other production costs attributable to the construction cost of the asset.

The Group capitalises safety expenses incurred as a result of legal and regulatory obligations sanctioning non-compliance by an administrative ban from 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, they are measured and recorded in the same way as the corresponding provision (see note 1.3.21).

When some of the decommissioning costs for a plant are to be borne by a partner, the expected reimbursement is recognised as accrued income in the assets. The difference between the provision and the accrued income is recorded as a tangible asset, and subsequent payments by the partner are deducted from the accrued income.

The following components are thus included in the balance sheet value of property, plant and equipment:

- the discounted cost of decommissioning the facilities;
- and for nuclear facilities, the discounted cost of last core nuclear fuel, including:
  - the cost of the loss on reactor fuel that will not be fully irradiated when production shuts down and cannot be reused because of technical and regulatory constraints;
  - the cost of processing this fuel;
  - and the cost of removing and storing waste resulting from these operations.

Strategic safety spare parts for nuclear facilities are treated as property, plant and equipment, and depreciated over the residual useful life of the installations.

When a part of an asset has a different useful life from the overall asset's useful life, it is identified as an asset component and depreciated over a specific period. This mainly concerns the costs of major inspections, which are amortised over a period corresponding to the time elapsing between two inspections.

Borrowing costs attributable to the financing of an asset incurred during the construction period are included in the value of the asset provided it is a "qualifying asset" as defined by IAS 23.

1.3.12.2 Depreciation

Items of 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.

Depending on each country's specific regulations and contractual arrangements, the expected useful lives for the main facilities are as follows:

- hydroelectric dams: 75 years
- electromechanical equipment used in hydropower plants: 50 years
- fossil-fired power plants: 25 to 45 years
- nuclear generation facilities:
  - in France: 40 years
  - outside France: 35 to 60 years
- transmission and distribution installations (lines, substations): 20 to 50 years
- wind farm and photovoltaic facilities: 20 to 25 years

In 2012, the useful life of certain nuclear generation facilities in the United Kingdom was extended by 5 and 7 years.

1.3.13 Concession agreements

1.3.13.1 Accounting treatment

The accounting treatment of public and private agreements depends on the nature of the agreements and their specific contractual features.

For public agreements concerning contractual services, IFRIC 12, "Service concession arrangements", applied by the EDF Group since 1 January 2010, has a limited impact on the Group's financial statements, since the Group considers for most of its concessions that in substance the grantors do not have the characteristic features of control over infrastructures as defined in IFRIC 12.

1.3.13.2 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 public transmission network operated under concession from the State.

1.3.13.2.1 Public electricity distribution concessions

- General background

Since the enactment of the French Law of 8 April 1946, the EDF group 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 authorised State concession operator.
These agreements cover terms of between 20 and 30 years, and generally use standard concession rules deriving from 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 (updated in 2007).

- Recognition of assets as property, plant and equipment operated under French public electricity distribution concessions

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 on a specific line in the balance sheet assets at acquisition cost, or their estimated value at the transfer date when supplied by the grantor.

1.3.13.2.2 Hydropower concessions

Hydropower concessions in France follow standard rules approved by decree. Assets attributed to the hydropower concessions comprise hydropower generation equipment (dams, pipes, turbines, etc) and, in the case of recently-renewed concessions, electricity generation and switching facilities (alternators, etc).

Assets used in these concessions are recorded under "Property, plant and equipment operated under concessions for other activities" at acquisition cost. As a result of changes in the regulations following removal of the outgoing operator's preferential right when a concession is renewed, the Group has shortened the depreciation periods used for certain assets.

1.3.13.2.3 Public transmission concession

Under French law, assets assigned to the public transmission concession belong to RTE Réseau de Transport d'Électricité (RTE). Following application of the equity method to RTE from 31 December 2010, these assets are included in calculating the equity value of RTE in the Group's consolidated balance sheet.

1.3.13.2.4 Foreign concessions

Foreign concessions are governed by a range of contracts and national laws. Most assets operated under foreign concessions are recorded under "Property, plant and equipment operated under concessions for other activities". Foreign concessions chiefly concern Edison in Italy, which operates hydrocarbon generation sites, gas storage sites, local gas distribution networks and hydropower generating plants under concessions. Edison owns all the assets except for some items of property, plant and equipment on the hydropower generation sites, which will be returned to the grantor for nil consideration or with an indemnity when the concession ends. In compliance with IFRIC 12, certain concession agreements are recorded as intangible assets.

Hydropower generation assets which will be returned for nil consideration at the end of the concession are depreciated over the duration of the concession. Hydrocarbon generation sites are recorded in compliance with the rules applicable to the sector (see note 1.3.11).

1.3.14 Leases

In the course of its business the Group uses assets made available to it, or makes assets available to lessees, under lease contracts. These contracts are analysed 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.

1.3.14.1 Finance leases

Contracts that effectively transfer virtually all risks and benefits inherent to ownership of the leased item 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 duration of the lease to the leased assets' useful life;
- total discounted 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.

Assets used under finance leases are derecognised from the lessor's balance sheet and included in the relevant category of property, plant and equipment in the lessee's accounts. Such assets are depreciated over their useful life, or the term of the lease contract when this is shorter.
A corresponding financial liability is booked by the lessee, and a financial asset by the lessor.

If the Group performs a sale and leaseback operation resulting in a finance lease agreement, this is recognised in accordance with the principles described above. If the transfer price is higher than the asset's book value, the surplus is deferred and recognised as income progressively over the term of the lease.

1.3.14.2 Operating leases

Lease agreements that do not qualify as finance leases are classified and recognised as operating leases. Rental charges are spread over the duration of the lease agreement on a straight-line basis.

1.3.14.3 Arrangements containing a lease

In compliance with IFRIC 4, the Group identifies arrangements that do not have the legal form of a lease contract but nonetheless convey the right to use an asset or group of specific assets to the purchaser, 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 analysed with reference to IAS 17 for classification as either finance or operating leases.

1.3.15 Impairment of goodwill, intangible assets and property, plant and equipment

At the year-end and at each interim reporting date, the Group assesses whether there is an indication that an asset could have been significantly impaired. An impairment test is also carried out at least once a year on cash-generating units (CGUs) or groups of CGUs including goodwill or any intangible asset with an indefinite useful life.

For CGUs including goodwill or another non-amortisable intangible asset, or when there is evidence of loss of value, an impairment test is carried out as follows:

- The Group measures any long-term asset impairment by comparing the carrying value of these assets and goodwill, classified into cash-generating units where necessary, and their recoverable amount.
  Cash-generating units (CGUs) are groups of homogeneous assets that generate identifiable independent cash flows. The Group's CGUs are

subgroups or legal entities, broken down where necessary by activity (generation and supply, distribution, transmission, other). Goodwill is allocated to the CGUs that benefit from synergies resulting from the acquisition.

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. 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 goodwill, and any surplus to the other assets of the CGU concerned.

- 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 at least three years, and assumptions validated by the Group. 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, the market share for supplies, 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.
- The fair value net of disposal costs is measured on the basis of multiples observed for the most recent transactions in the relevant sector.

Impairment of goodwill is irreversible.

1.3.16 Financial assets and liabilities

Financial assets include available-for-sale assets (non-consolidated investments, investment securities and certain dedicated assets), loans and receivables at amortised cost, including trade receivables, and the positive fair value of derivatives.

Available-for-sale securities allocated to dedicated assets are presented in note 48.

Financial liabilities comprise loans and other financial liabilities, trade payables, bank credit and the negative fair value of financial 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.

1.3.16.1 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;
- derivatives.

Financial instruments stated at fair value are classified in the following categories:

- level 1 (quoted prices): financial instruments listed on an active market;
- level 2 (observable data): financial instruments valued using valuation techniques based on observable parameters;
- level 3 (internal model): financial instruments valued using valuation techniques based wholly or partly on non-observable parameters.

1.3.16.1.1 Financial assets and liabilities carried at fair value with changes in fair value included in income

Financial assets carried 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 fair value, which is generally equal to the amount of cash paid out. Transaction costs directly attributable to the acquisition are recorded in the income statement. At each subsequent reporting date they are adjusted to fair value, based on quoted prices available from external sources for listed financial instruments, or using recognised valuation techniques such as the discounted cash flow method or reference to external sources for other financial instruments.

Changes in fair value other than those concerning commodity contracts are recorded in the income statement under the heading "Other financial income and expenses".

Dividends and interest received on assets carried 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".

Changes in the fair value of non-trading commodity transactions are reported separately on a specific line of the income statement, "Net changes in fair value on Energy and Commodity derivatives, excluding trading activities" below the operating profit before depreciation and amortisation. These are transactions that come under the scope of IAS 39, which for accounting purposes are not eligible for hedge accounting or the IAS 39 "own use" exemption (see note 1.3.16.1.6).

Regarding the fair value option, the Group classifies an asset or liability "at fair value with changes in fair value included in income" in the three following circumstances:

- when using fair value eliminates or significantly reduces an inconsistency in the measurement of assets and liabilities;
- 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 reporting to management;
- when a contract contains one or more embedded derivatives. In such cases the fair value option may be applied to the hybrid instrument, unless:
  - the embedded derivative does not substantially affect the cash flows of the contract,
  - analysis of the host contract and the embedded derivative does not lead to separation of this embedded derivative.

1.3.16.1.2 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 amortised 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".

1.3.16.1.3 Loans and financial receivables

Loans and financial receivables are valued and recorded at the transaction date, at amortised cost less any impairment.

Interest is calculated at the effective interest rate and recorded in the income statement under the heading "Other financial income and expenses".

1.3.16.1.4 Available-for-sale financial assets

Available-for-sale financial assets comprise non-consolidated investments, investment securities, reserved funds and certain dedicated assets.

On initial recognition, available-for-sale financial assets are recorded at fair value plus transaction costs attributable to their acquisition. They are subsequently readjusted to fair value at each reporting 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. Shares not listed on an active market for which fair value cannot be reliably estimated are recorded at acquisition cost.

Unrealised gains or losses on these assets are recorded in equity, unless there is evidence of a realised loss, in which case impairment is recognised in the financial result (see note 1.3.16.2.2).

For available-for-sale financial assets represented by debt securities, interest income is calculated at the effective interest rate and credited to the income statement under the heading "Other financial income and expenses".

1.3.16.1.5 Financial liabilities

Financial liabilities are recorded at amortised cost, with separation of embedded derivatives where applicable. Interest expenses are calculated at the effective interest rate and recorded in the income statement under the heading "Cost of gross financial indebtedness" over the duration of the financial liability.

1.3.16.1.6 Derivatives

- 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 ("own use"). 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 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 operator, and are outside 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.

- Measurement and recognition

Derivatives are initially recorded at fair value, based on quoted prices and market data available from external sources. If no quoted prices are available, the Group may refer to recent comparable transactions or if no such transactions exist base its valuation on internal models that are recognised by market participants, giving priority to information directly derived from 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 the trading business, realised and unrealised gains and losses are reported net under the heading "Sales".

- Derivatives classified as hedges

The EDF group uses derivatives 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:

- 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%;
- in the case of cash flow hedges, the future transaction being hedged must be highly probable;
- reliable measurement of the effectiveness of the hedge must be possible;
- the hedge must be supported by appropriate documentation from its inception.

The hedging relationship ends when:

- a derivative ceases to be an effective hedging instrument;
- a derivative 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 derivatives external to the Group, and internal derivatives that are matched with similar transactions external to the Group, qualify for hedge accounting.

The Group uses the following categories for hedges:

(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 materialise, the amounts previously recognised 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 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.

1.3.16.2 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.

1.3.16.2.1 Financial assets recorded at amortised 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 income and expenses". If the impairment loss decreases in a subsequent period, the amount of the decrease is reversed and transferred to the income statement.

1.3.16.2.2 Available-for-sale financial assets

If there is a substantial, long-term decline in the fair value of available-for-sale assets, the unrealised loss is reclassified from equity to income. For debt instruments, impairment is only recorded in income when there is an indication of impairment associated with the counterparty. If the fair value of an available-for-sale financial asset rises in a subsequent period, the increase in value is included in equity when it concerns equity instruments, and leads to a reversal from previously-recorded impairment when it concerns debt instruments.

Different criteria for impairment apply to different types of available-for-sale financial assets.

For available-for-sale financial assets (other than dedicated assets) held by controlled companies, the Group generally uses the following criteria to assess impairment:

- 3 years as the threshold for assessment of long-term loss of value,
- a 50% decline from historical cost as indication of a significant loss of value.

For available-for-sale financial assets held as part of EDF's dedicated asset portfolio, the Group uses the following criteria to assess impairment:

- a 5-year period as the threshold for assessment of a long-term loss of value,
- a 40% decline from historical portfolio value as indication of a significant loss of value.

In assessing impairment of dedicated assets, the Group takes into consideration factors specific to their nature: legal and regulatory obligations associated with the funds concerned, the timing of the payments they are to finance, and long-term management of the funds.

1.3.16.3 Derecognition of financial assets and liabilities

The Group derecognises a financial asset when:

- the contractual rights to the cash flows generated by the asset expire, or
- the Group transfers the rights to receive contractual cash flows related to the financial asset through the transfer of substantially all of the risks and benefits associated with ownership of the asset.

Any interest created or retained by the Group in transferred financial assets is recorded as a separate asset or liability.

The Group derecognises a financial liability when its contractual obligations are extinguished, cancelled or expire. When a debt is renegotiated with a lender on substantially different terms, a new liability is recognised.

1.3.16.4 Securitisation operations

When it can be demonstrated that the Group has transferred substantially all the risks and benefits related to transfers of receivables, particularly the credit risk, the items concerned are derecognised.

Otherwise, the operation is considered as a financing operation, and the receivables remain in the balance sheet assets, with recognition of a corresponding financial liability.

1.3.17 Inventories

Inventories are recognised at the lower of acquisition cost or net realisable value, except for inventories held for trading activities, which are carried at market value. The cost of inventories is determined by the weighted average unit cost method.

Cost includes all direct material costs, labour costs, and a share of indirect production costs.

1.3.17.1 Nuclear fuel and materials

Inventory accounts include:

- nuclear materials, whatever their form during the fuel production cycle,
- fuel components in the warehouse or in the reactor.

The stated value of nuclear fuel and materials and work-in-progress is determined based on direct processing costs including materials, labour and subcontracted services (e.g. fluoration, enrichment, production, etc).

In accordance with regulatory obligations specific to each country, inventories of fuel (new or not entirely consumed) may also comprise expenses for spent fuel management and long-term radioactive waste management, with corresponding provisions or debts in the liabilities, or full and final payments made when the fuel is loaded.

Interest expenses incurred in financing inventories of nuclear fuels with a short-term production process are charged to expenses for the period.

Nuclear fuel consumption is determined as a proportion of the expected output when the fuel is loaded in the reactor. These quantities are valued at weighted average cost of inventories. Inventories are periodically corrected in view of forecast spent quantities based on neutronic measurements and physical inventories.

1.3.17.2 Other operating inventories

Other non-trading operating inventories are generally valued at weighted average cost including direct and indirect purchasing costs. Inventories held for trading are carried at market value.

Impairment of spare parts supplied under a maintenance programme depends on the turnover of these parts and the useful lives of the generation units.

Certificates issued under the various environmental schemes are also included in other inventories (see note 1.3.27).

1.3.18 Trade receivables

Trade receivables are initially recognised at the fair value of the consideration received or receivable. Impairment is recorded when, based on the probability of recovery assessed according to the type of receivable, their carrying amount falls below 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 the value of unbilled receivables for energy already supplied.

1.3.19 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".

1.3.20 Equity

1.3.20.1 Fair value adjustment of financial instruments

The fair value adjustment of financial instruments results from the restatement to fair value of available-for-sale financial assets and certain hedging instruments.

1.3.20.2 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.

1.3.20.3 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. Net gains or losses on disposals of treasury shares are directly included in equity and do not affect net income.

1.3.21 Provisions other than employee benefit provisions

The Group recognises provisions if the following three conditions are met:

- the Group has a present obligation (legal or constructive) towards a third party that arises from an 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.

Provisions mainly cover the following:

- back-end nuclear cycle expenses: provisions for spent fuel management and long-term radioactive waste management are established in accordance with the obligations and final contributions specific to each country;
- costs for decommissioning power plants and losses 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;
  - losses on energy sale agreements are measured by comparing the estimated income under the contractual terms with the cost of 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 based on discounted future cash flows.

The rate of inflation and the discount rate are based on the economic and regulatory parameters of the country where the economic entity is located.

The discount effect generated at each closing to reflect the passage of time is recorded under "Discount effect" in financial expenses.

A change in provisions resulting from a change in discount rates, a change in the disbursement schedule or a change in contractor quote are recorded:

- as a change in the corresponding assets if the provision was initially covered by balance sheet assets (decomissioning of plants still in operation, long-term management of the radioactive waste resulting from such decommissioning, and last cores);
- in the income statement in all other cases.

In extremely rare cases, description of a specific litigation covered by a provision may be omitted from the notes to the financial statements if such disclosure could cause serious prejudice to the Group.

If it is anticipated that all or part of the expenses covered by a provision will be reimbursed, the reimbursement is recognised under receivables if and only if the Group is virtually certain of receiving it.

In extremely rare situations, a provision cannot be booked due to lack of a reliable estimate. In such unusual cases, the obligation is mentioned in the notes as a contingent liability, unless there is little likelihood of an outflow of resources.

1.3.22 Provisions for employee benefits

The Group grants its employees post-employment benefits (pension plans, retirement indemnities, etc) and other long-term benefits (e.g. long-service awards) in compliance with the specific laws and measures in force in each country where it does business.

1.3.22.1 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 under all types of plan, taking into consideration each country's specific economic conditions and expected wage increases.

For 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, taking into account the longer employee contribution period to qualify for a full pension);
- forecast numbers of pensioners, determined based on employee turnover rates and mortality data available in each country;
- reversion pensions where relevant, taking into account both the life expectancy of the employee and his/her spouse and the marriage rate observed for the population of IEG (electricity and gas sector) status employees;
- a discount rate that depends on the geographical zone and the duration of the obligations; in compliance with IAS 19, this rate is determined as the market yield on high-quality corporate bonds or the year-end rate on government bonds with a similar duration to EDF's commitments to employees.

The provision reflects the value of the fund assets that cover post-employment obligations, which is deducted from the value of the benefit obligation.

Actuarial gains and losses on post-employment benefits generated by changes in actuarial assumptions (discount rate, mortality rate, retirement age, etc) are recognised immediately in the statement of net income and gains and losses recorded directly in equity, in application of the option allowed by IAS 19 (2008).

For other long-term benefits, actuarial gains and losses and the full past service cost are directly included in the provision.

The net expense booked during the year for employee benefit obligations includes:

- the net cost of additional vested benefits, and the financial discount cost on existing benefits;
- the income corresponding to the expected return on fund assets;
- the income or expense related to amendments/terminations of benefit plans or introduction of new plans;
- the change in actuarial gains and losses relating to long-term benefits.

1.3.22.2 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.

1.3.22.2.1 French subsidiaries covered by the IEG system

Subsidiaries belonging to the specific IEG (electricity and gas) sector system, namely EDF, ERDF, RTE Réseau de Transport d'Électricité (RTE), Électricité de Strasbourg and certain subsidiaries of the Tiru subgroup, are Group companies where almost all employees benefit from the IEG statutes, including the special pension system and other statutory benefits.

Since the financing reform for the IEG sector system took effect on 1 January 2005, the CNIEG (*Caisse Nationale des IEG*, the sector's specific pension body) has managed not only the special IEG pension system, but also the industrial accident, invalidity and death insurance system for the sector.
The CNIEG is a social security body governed by private law, formed by the law of 9 August 2004. It has legal entity status and reports to the French government, operating under the joint supervision of France's ministers for the Budget, Social Security and Energy. Under the funding arrangements introduced by the law, IEG companies establish pension provisions to cover entitlements not funded by France's standard systems (CNAV, AGIRC and ARRCO), to which the IEG system is affiliated, or by the CTA (*Contribution Tarifaire d'Acheminement*) levy on gas and electricity transmission and distribution services.

The provision for pensions thus includes:

- specific benefits of employees in the deregulated or competitive activities;
- specific benefits earned by employees from 1 January 2005 for the regulated activities (transmission and distribution) (past benefits are financed by the CTA levy);
- specific benefits of employees benefiting from early retirement before the standard legal retirement age.

CNIEG management expenses payable by EDF for the administration and payment of retired employees' pensions are also included.

In addition to pensions, other benefits are granted to IEG status former employees (not currently in active service), as detailed below:

- Benefits in kind: article 28 of the IEG national statutes entitles such employees and current employees to benefits in kind in the form of supplies of electricity or gas at the preferential "employee price". The EDF group's obligation for supplies of energy to EDF and GDF SUEZ 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 GDF SUEZ.
- Retirement gratuities: these are paid upon retirement to employees due to receive the statutory old-age pension, or to their dependants if the employee dies before reaching retirement. These obligations are almost totally covered by an insurance policy.
- Bereavement benefit: this is paid out upon the death of an inactive or disabled 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 three months' pension) or to a third party that has paid funeral costs (discretionary indemnity equal to the costs incurred).
- Bonus pre-retirement 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.
- Other benefits include cost of studies indemnities, additional retirement indemnities, time banking for pre-retirement leave, and pensions for personnel sent on secondment to subsidiaries not covered by the IEG system.

1.3.22.2.2 French and foreign subsidiaries not covered by the special IEG system

Pension obligations principally relate to the British, US and Belgian companies and are mostly covered by defined-benefit plans.

1.3.22.3 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. They include:

- annuities following incapacity, invalidity, 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, and invalidity and incapacity 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.

1.3.23 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 privatisation law of 1986 and article 26 of the law of 9 August 2004 require a share offer to be reserved for current and retired employees of the company. The company being privatised 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 recognised as such with a corresponding adjustment in equity.

Valuation of the benefit granted through a share offer reserved for current and former 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.

1.3.24 Special concession liabilities

These liabilities represent the contractual obligations specific to the concession rules for public electricity distribution concessions in France, recognised 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 unamortised 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 comprise:
  - depreciation recorded on the portion of assets financed by the grantor;
  - the provision for renewal, exclusively for assets due for renewal before the end of the concession.

When assets are replaced, the provision and amortisation 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.

In general, 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, are 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 year-end 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. Annual allocations to the provision are based on this difference, less any existing provisions, with the net amount spread over the residual useful life of the assets. Consequently, the expenses recognised for a given item increase over time,
  - based on the share of the asset's historical cost financed by the grantor for amortisation of the grantor's financing.

The Group considers that the obligations 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 obligations 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 present 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 5%;
- amortisation of the grantor's financing is also discounted at the rate of 5%.

The following table shows the impacts of this discounting for EDF and ERDF in 2012:

- Impacts on the income statement:

(in millions of Euros and before taxes)	**2012**
Operating profit	455
Financial result	(575)
Income before taxes of consolidated companies	(120)

- Impacts on the balance sheet - equity:

(in millions of Euros and before taxes)	**2012**
At opening date	2,440
At closing date	2,320

Valuation of concession liabilities under this method is subject to uncertainty over costs and disbursements, and is also sensitive to inflation and discount rates.

1.3.25 Investment subsidies

Investment subsidies received by Group companies are included in liabilities under the heading "Other current liabilities" and transferred to income as and when the economic benefits of the corresponding assets are utilised.

1.3.26 Assets classified as held for sale and associated liabilities, and discontinued operations

Assets that qualify as held for sale and associated liabilities 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. In the cash flow statement, net changes in cash and cash equivalents of discontinued activities are also reported separately on a specific line.

Impairment is booked when the realisable value is lower than the net book value.

1.3.27 Environment

1.3.27.1 Greenhouse gas emission rights

Since no IFRS specifically addresses the question, the Group has opted for the "net approach" accounting treatment: only purchases and sales of emission rights are recognised in the accounts, and a provision is booked if the entity expects to have an annual shortfall in emission rights.
The Group thus applies the following principles:

- purchased emission rights are recorded as intangible assets at acquisition cost; when they have been granted for nil consideration by the relevant State under the National Allocation Plan, they are not shown in the balance sheet (considered to have nil value);
- when a Group entity's actual emissions for the year are higher than the rights allocated by the State less completed transactions not subject to forward sale for rights still held in respect of that year, a provision is recorded to cover the excess emissions. This provision is equivalent to the acquisition cost up to the amount of rights acquired on the spot or forward markets, and based on market prices for the balance. The provision is cancelled when rights are surrendered to the State.

If the number of purchased emission rights recorded as intangible assets at the end of the year and not subject to forward sale is higher than the number of purchased rights that will be surrendered to the State for the year, an impairment test must be applied to the excess. If there is a significant negative differential on the purchased rights held, impairment must be booked, or partly or totally reversed where relevant.

Forward purchases/sales of emission rights 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.

1.3.27.2 Renewable energy certificates

Electricity produced from renewable energy sources (green energy) is measured in two ways:

- at the sale price, including costs associated with generation of this electricity;
- at the value of renewable energy certificates obtained.

The renewable energy certificate system thus applies to:

- non-obligated producers (because the obligation concerns energy sales: Poland, EDF Énergies Nouvelles);
- obligated producers (because the obligation concerns energy generation, or because they also sell energy and are subject to an energy sale obligation: Edison, Fenice, EDF Luminus, EDF Energy).

The EDF Group applies the following accounting treatments:

- for non-obligated electricity producers, certificates obtained based on generation output are recorded in "Other inventories" until they are sold on to suppliers;
- for obligated producers and an entity that both produces and supplies energy and is under an obligation to sell a specified quantity of renewable energy, the Group uses the following accounting treatments for certificates obtained based on generation output:
  - up to the level of the obligation, these certificates are not recognised,
  - certificates in excess of the obligation are recorded in "Other inventories",
  - in the specific situation when an entity is not in a position to meet its obligation at the year-end, the Group applies the following accounting treatment:
    - certificates acquired for a consideration in order to meet the obligation are recorded in intangible assets at acquisition cost; and
    - a provision is established equivalent to the shortfall in certificates compared to the obligation at the year-end. The value of this provision is based on the acquisition price of certificates already purchased on the spot or forward market, and market prices or penalty prices for the balance. The provision is cancelled when the certificates are surrendered to the State.

Forward purchases/sales of certificates related to trading activities are recorded in accordance with IAS 39, stated at fair value at the balance sheet date. The change in fair value is recorded in the income statement.

1.3.27.3 Energy savings certificates

In the general framework of an energy savings certificates system (of the kind introduced by the French law of 13 July 2005) EDF fulfils its obligations either by taking measures regarding its assets or action with its final customers that entitle it to energy savings certificates from the State, or by purchasing energy savings certificates directly.

Expenses incurred to meet a cumulative energy savings obligation are treated as:

- property, plant and equipment if the action taken by the entity concerns its own assets and the expenses qualify for recognition as an asset;
- expenses for the year incurred, if they do not meet the requirements for capitalisation or if the action taken is to encourage third parties to save energy;
- expenses incurred in excess of the cumulative obligation at the year-end are included in inventories until they are utilised to cover EDF's obligation.

Energy savings certificates acquired for resale are recorded as intangible assets.

1.3.27.4 Environmental expenses

Environmental expenses are identifiable 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 activities. These expenses are treated as follows:

- they are capitalised if they are incurred to prevent or reduce future damage or protect resources;
- they are booked as environmental liabilities and increases 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 representing economic benefits;
- they are recognised 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.

↗ Note 2. Comparability

2.1 Change in recognition of actuarial gains and losses related to post-employment benefits

Since 1 January 2012, the Group has recorded actuarial gains and losses related to post-employment defined benefit plans in the statement of net income and gains and losses recorded directly in equity, under the option allowed by IAS 19.

The Group has thus stopped using the "corridor" method and now recognises all actuarial gains and losses in full.

As this is a change of accounting method, comparative prior year figures resulting from retrospective application of this method are presented in compliance with IAS 8.

The impact on equity (EDF share) amounts to €(1,671) million at 1 January 2011 and €(2,087) million at 31 December 2011.

The impact at 1 January 2011 mainly concerns the France and United Kingdom segments (€(1,010) million and €(566) million respectively).

2.2 Impact on the income statement for 2011

(in millions of Euros)	2011 as published	Impacts of IAS 19 option	2011 restated
Sales	65,307	-	65,307
Fuel and energy purchases	(30,195)	-	(30,195)
Other external expenses	(9,931)	-	(9,931)
Personnel expenses	(10,917)	115	(10,802)
Taxes other than income taxes	(3,101)	-	(3,101)
Other operating income and expenses	3,661	-	3,661
Operating profit before depreciation and amortisation	**14,824**	**115**	**14,939**
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	(116)	-	(116)
Net depreciation and amortisation	(6,285)	-	(6,285)
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(221)	-	(221)
(Impairment)/reversals	(640)	-	(640)
Other income and expenses	724	51	775
Operating profit	**8,286**	**166**	**8,452**
Cost of gross financial indebtedness	(2,271)	-	(2,271)
Discount effect	(3,064)	-	(3,064)
Other financial income and expenses	1,555	-	1,555
Financial result	**(3,780)**	-	**(3,780)**
Income before taxes of consolidated companies	**4,506**	**166**	**4,672**
Income taxes	(1,305)	(31)	(1,336)
Share in income of associates	45	6	51
GROUP NET INCOME	**3,246**	**141**	**3,387**
EDF net income	**3,010**	**138**	**3,148**
Net income attributable to non-controlling interests	**236**	**3**	**239**

2.3 Impact on the statement of net income and gains and losses recorded directly in equity for 2011

(in millions of Euros)	2011 as published	Impacts of IAS 19 option	2011 restated
Group net income	3,246	141	3,387
Gross change in the fair value of available-for-sale financial assets	(660)	-	(660)
Related tax effect	176	-	176
Change in fair value of available-for-sale financial assets	*(484)*	-	*(484)*
Gross change in fair value of hedging instruments	(1,260)	-	(1,260)
Related tax effect	261	-	261
Change in the fair value of hedging instruments	*(999)*	-	*(999)*
Gross change in actuarial gains and losses on post-employment benefits	-	(791)	(791)
Related tax effect	-	270	270
Change in actuarial gains and losses on post-employment benefits (1)	-	*(521)*	*(521)*
Translation adjustments	*676*	*(63)*	*613*
Gains and losses recorded directly in equity	(807)	(584)	(1,391)
NET INCOME AND GAINS AND LOSSES RECORDED DIRECTLY IN EQUITY	**2,439**	**(443)**	**1,996**

(1) EDF's share €(500) million.

2.4 Impact on the balance sheet at 31 December 2011

ASSETS

(in millions of Euros)	31/12/2011 as published	Impacts of IAS 19 option	31/12/2011 restated
Goodwill	11,648	-	11,648
Other intangible assets	4,702	-	4,702
Property, plant and equipment operated under French public electricity distribution concessions	45,501	-	45,501
Property, plant and equipment operated under concessions for other activities	6,022	-	6,022
Property, plant and equipment used in generation and other tangible assets owned by the Group	60,445	-	60,445
Investments in associates	7,684	(140)	7,544
Non-current financial assets	24,517	(257)	24,260
Deferred tax assets	2,507	652	3,159
Non-current assets	**163,026**	**255**	**163,281**
Inventories	13,581	-	13,581
Trade receivables	20,908	-	20,908
Current financial assets	16,980	-	16,980
Current tax assets	459	-	459
Other receivables	10,309	-	10,309
Cash and cash equivalents	5,743	-	5,743
Current assets	**67,980**	**-**	**67,980**
Assets classified as held for sale	**701**	**-**	**701**
TOTAL ASSETS	**231,707**	**255**	**231,962**

EQUITY AND LIABILITIES

(in millions of Euros)	31/12/2011 as published	Impacts of IAS 19 option	31/12/2011 restated
Capital	924	-	924
EDF net income and consolidated reserves	29,646	(2,087)	27,559
Equity (EDF share)	**30,570**	**(2,087)**	**28,483**
Equity (non-controlling interests)	4,337	(148)	4,189
Total equity	**34,907**	**(2,235)**	**32,672**
Provisions related to nuclear generation – Back-end nuclear cycle, plant decommissioning and last cores	37,198	-	37,198
Provisions for decommissioning of non-nuclear facilities	809	-	809
Provisions for employee benefits	12,215	2,396	14,611
Other provisions	1,338	-	1,338
Non-current provisions	*51,560*	*2,396*	*53,956*
Special French public electricity distribution concession liabilities	41,769		41,769
Non-current financial liabilities	42,688	-	42,688
Other non-current liabilities	4,989	-	4,989
Deferred tax liabilities	4,479	-	4,479
Non-current liabilities	**145,485**	**2,396**	**147,881**
Current provisions	3,968	94	4,062
Trade payables	13,681	-	13,681
Current financial liabilities	12,789	-	12,789
Current tax liabilities	571	-	571
Other current liabilities	19,900	-	19,900
Current liabilities	**50,909**	**94**	**51,003**
Liabilities related to assets classified as held for sale	**406**	**-**	**406**
TOTAL EQUITY AND LIABILITIES	**231,707**	**255**	**231,962**

2.5 Impact on the balance sheet at 31 December 2010

ASSETS

(in millions of Euros)	31/12/2010 as published	Impacts of IAS 19 option	31/12/2010 restated
Goodwill	12,028	-	12,028
Other intangible assets	4,616	-	4,616
Property, plant and equipment operated under French public electricity distribution concessions	43,905	-	43,905
Property, plant and equipment operated under concessions for other activities	6,027	-	6,027
Property, plant and equipment used in generation and other tangible assets owned by the Group	57,268	-	57,268
Investments in associates	7,854	(107)	7,747
Non-current financial assets	24,921	(173)	24,748
Deferred tax assets	2,125	452	2,577
Non-current assets	**158,744**	**172**	**158,916**
Inventories	12,685	-	12,685
Trade receivables	19,524	-	19,524
Current financial assets	16,788	-	16,788
Current tax assets	525	-	525
Other receivables	9,319	-	9,319
Cash and cash equivalents	4,829	-	4,829
Current assets	**63,670**	**-**	**63,670**
Assets classified as held for sale	**18,145**	**20**	**18,165**
TOTAL ASSETS	**240,559**	**192**	**240,751**

EQUITY AND LIABILITIES

(in millions of Euros)	31/12/2010 as published	Impacts of IAS 19 option	31/12/2010 restated
Capital	924	-	924
EDF net income and consolidated reserves	30,393	(1,671)	28,722
Equity (EDF share)	**31,317**	**(1,671)**	**29,646**
Equity (non-controlling interests)	5,586	(121)	5,465
Total equity	**36,903**	**(1,792)**	**35,111**
Provisions related to nuclear generation – Back-end nuclear cycle, plant decommissioning and last cores	35,630	-	35,630
Provisions for decommissioning of non-nuclear facilities	753	-	753
Provisions for employee benefits	11,745	1,845	13,590
Other provisions	1,337	-	1,337
Non-current provisions	***49,465***	***1,845***	***51,310***
Special French public electricity distribution concession liabilities	41,161	-	41,161
Non-current financial liabilities	40,646	-	40,646
Other non-current liabilities	4,965	-	4,965
Deferred tax liabilities	4,894	-	4,894
Non-current liabilities	**141,131**	**1,845**	**142,976**
Current provisions	5,010	68	5,078
Trade payables	12,805	-	12,805
Current financial liabilities	12,766	-	12,766
Current tax liabilities	396	-	396
Other current liabilities	18,674	-	18,674
Current liabilities	**49,651**	**68**	**49,719**
Liabilities related to assets classified as held for sale	**12,874**	**71**	**12,945**
TOTAL EQUITY AND LIABILITIES	**240,559**	**192**	**240,751**

2.6 Impact on the statement of cash flows for 2011

(in millions of Euros)	2011 as published	Impacts of IAS 19 option	2011 restated
Operating activities:			
Income before taxes of consolidated companies	**4,506**	**166**	**4,672**
Impairment (reversals)	640	-	640
Accumulated depreciation and amortisation, provisions and change in fair value	7,325	(115)	7,210
Financial income and expenses	1,117	-	1,117
Dividends received from associates	334	-	334
Capital gains/losses	(686)	(51)	(737)
Change in working capital	(1,785)	-	(1,785)
Net cash flow from operations	*11,451*	-	*11,451*
Net financial expenses disbursed	(1,623)	-	(1,623)
Income taxes paid	(1,331)	-	(1,331)
Net cash flow from operating activities	**8,497**	-	**8,497**
Investing activities:			
Investments, net of cash acquired/transferred	3,624	-	3,624
Investments in intangible assets and property, plant and equipment	(11,134)	-	(11,134)
Net proceeds from sale of intangible assets and property, plant and equipment	497	-	497
Changes in financial assets	222	-	222
Net cash flow used in investing activities	**(6,791)**	-	**(6,791)**
Financing activities:			
Transactions with non-controlling interests	(1,324)	-	(1,324)
Dividends paid by parent company	(2,122)	-	(2,122)
Dividends paid to non-controlling interests	(261)	-	(261)
Purchases/sales of treasury shares	(14)	-	(14)
Cash flows with shareholders	*(3,721)*	-	*(3,721)*
Issuance of borrowings	5,846	-	5,846
Repayment of borrowings	(4,071)	-	(4,071)
Funding contributions received for assets operated under concessions	194	-	194
Investment subsidies received	161	-	161
Other cash flows from financing activities	*2,130*	-	*2,130*
Net cash flow used in financing activities	**(1,591)**	-	**(1,591)**
Net increase (decrease) in cash and cash equivalents	**115**	-	**115**
CASH AND CASH EQUIVALENTS - OPENING BALANCE	**5,567**	-	**5,567**
Net increase/(decrease) in cash and cash equivalents	115	-	115
Effect of currency fluctuations	54	-	54
Financial income on cash and cash equivalents	44	-	44
Effect of reclassifications	(37)	-	(37)
CASH AND CASH EQUIVALENTS - CLOSING BALANCE	**5,743**	-	**5,743**

Note 3. Significant events and transactions

3.1 Edison – takeover by the EDF group

3.1.1 Description of operations

Once the conditions were fulfilled, on 24 May 2012 the EDF group and its Italian partners finalised the takeover of the energy group Edison. The principles of the final agreement were consistent with the preliminary agreement signed by the parties on 26 December 2011.
The Group thus took control of Edison on 24 May 2012 by purchasing Delmi's entire investment (50%) in Transalpina di Energia (TdE) for a total of €784 million, corresponding to the negotiated price of €0.89 per Edison share.
Following this acquisition the Group held 78.96% of the capital and 80.64% of the voting rights in Edison.

At the same time as the EDF group took control of Edison, Delmi took control of Edipower by purchasing the investments in Edipower held by Edison (50%) and Alpiq (20%) for the total consideration of €884 million. Edison and Edipower also signed a long-term (6-year) gas supply contract to cover 50% of Edipower's gas requirements.

In compliance with Italian stock market regulations, on 2 July 2012 the EDF Group launched a mandatory tender offer for the remaining Edison shares, at the price of €0.89 per ordinary share. No offer was made for non-voting shares.
976,306,145 ordinary shares, corresponding to a total of €869 million, were tendered to the offer by minority shareholders by the closing date of 6 September 2012. The additional cost of raising this offer price from the €0.84 envisaged in the preliminary agreement of 26 December 2011 – a total increase of €48 million – was borne in equal shares by the EDF group and Delmi.

Between 2 and 30 November 2012, an offer was also made to Edison minority shareholders to convert their "saving shares", which carry no voting rights, into ordinary shares. As a result of this offer, 437,573 non-voting shares were converted into ordinary shares.

After the mandatory tender offer and the conversion offer for non-voting shares, the EDF group holds 97.40% of the capital and 99.48% of the voting rights of Edison at 31 December 2012.

Italian stock market regulations do not require the EDF group to buy the remaining Edison shares still held by minority shareholders after the mandatory tender offer.

In application of Italian law, ordinary shares in Edison have been delisted since 11 September 2012.

3.1.2 Accounting treatment of the operation

For accounting purposes this operation has been treated as two separate transactions:

- takeover of Edison and TdE by purchasing Delmi's investment in TdE;
- acquisition of minority interests in Edison through the mandatory public offer.

3.1.2.1 Accounting treatment of the takeover of Edison and TdE

The purchase of 50% of TdE from Delmi gave the EDF group control over the Edison group and TdE as of 24 May 2012. Although the mandatory tender offer for Edison shares launched on 2 July 2012 was an inevitable consequence of acquisition of TdE under Italian stock market regulations, for accounting purposes it is considered as a separate operation from the takeover of Edison, since:

- minority shareholders were free to accept or refuse the offer;
- control was acquired on 24 May 2012, independently of the number of shares tendered to the offer by minority shareholders, and cannot be called into question.

Consequently, as required by IFRS 3 (revised) (IFRS 3), the identifiable assets and liabilities acquired from Edison and TdE were recorded at fair value at the date control was acquired. The Group opted to state non-controlling interests at fair value in application of the "full goodwill" method.
In accordance with IFRS 3, the values determined are provisional and the Group has 12 months to finalise allocation of the acquisition price.
Delmi's share of the cost of the mandatory tender offer for Edison shares was considered as a purchase price adjustment clause for the investment in TdE/Edison.

Application of IFRS 3 to the takeover of Edison and TdE is therefore reflected in the following items in the Group's consolidated financial statements:

- a loss on sale of €(1,090) million resulting from remeasurement of the previous holding in Edison to "market participant[1]" fair value at the date control was acquired;
- negative goodwill of €1,023 million.

Since the price for the sale of Edison's investment in Edipower to Delmi was higher than defined in the preliminary agreement of 26 December 2011, a reversal of impairment of €39 million (EDF's share) has been booked in the 2012 income statement.
Finally, acquisition expenses amounting to €(30) million before taxes were recognised in 2012.

Overall, the takeover of Edison and TdE thus generated a €(58) million expense, recognised in the 2012 consolidated income statement under "Other income and expenses".

3.1.2.2 Accounting treatment of the acquisition of minority interests in Edison

In accounting terms, the acquisition of minority interests in the Edison group through the mandatory public offer is a separate transaction from the takeover of Edison (see 3.1.2.1). In accordance with IAS 27 (amended), it was therefore treated as a transaction between shareholders, and the difference between the price paid (including expenses related to the operation) and the share of net assets acquired was recorded in equity in the amount of €(24) million.

3.1.3 Determination of the loss on sale of the previously-held investment

In application of IFRS 3, a loss on sale has been recognised, equal to the difference between the net consolidated value and the "market participant" fair value of the Group's investment in the Edison and TdE subgroups at the date of the takeover.

The "market participant" fair value corresponds to the market price for Edison shares, i.e. the price applied for the transactions with Delmi and minority shareholders through the mandatory tender offer launched on 2 July 2012 (€0.89 per share).

1. *The "market participant" fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.*

The loss on the sale has been recorded under "Other income and expenses" in the 2012 consolidated financial statements. It was determined as follows.

(in millions of Euros)	
(A) "Market participant" fair value [(1)]	1,709
(B) Net book value of previously-held investment	2,804
(C) Effect of transfer to income of gains and losses recorded directly in equity	5
(A-B+C) LOSS ON SALE	**(1,090)**

(1) The "market participant" fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

3.1.4 Edison initial balance sheet items in the EDF group consolidation and determination of goodwill

3.1.4.1 Provisional initial balance sheet

The fair value of Edison's identifiable assets and liabilities is the Group's current best estimate, based on Edison's most recent available business plan (the 2012-2019 plan) and using standard valuation methods.

After determination of the fair values of the assets acquired and liabilities assumed, Edison's provisional initial balance sheet at 24 May 2012 (basis: 100%) is as follows.

ASSETS

(in millions of Euros)	Historical values	Fair value adjustments	Provisional initial values
Goodwill	2,859	(2,859)	- [(1)]
Other intangible assets	1,436	1,721	3,157 [(2)]
Property, plant and equipment	5,222	1,306	6,528 [(3)]
Investments in associates	49	-	49
Financial assets	815	-	815
Deferred tax assets	111	-	111
Inventories	324	-	324
Trade receivables	3,157	-	3,157
Current tax assets	24	-	24
Other receivables	575	-	575
Cash and cash equivalents	335	-	335
Assets classified as held for sale	1	-	1
TOTAL ASSETS	**14,908**	**168**	**15,076**

EQUITY AND LIABILITIES

(in millions of Euros)	Historical values	Fair value adjustments	Provisional initial values
Capital	5,292	-	5,292
EDF net income and consolidated reserves	1,660	(1,280)	380
Equity (EDF share)	**6,952**	**(1,280)**	**5,672**
Equity (non-controlling interests)	150	204	354 [(2)]
Total equity	**7,102**	**(1,076)**	**6,026**
Provisions	922	126	1,048 [(5)]
Financial liabilities	3,982	(39)	3,943 [(5)]
Deferred tax liabilities	371	1,157	1,528 [(4)]
Trade payables	1,928	-	1,928
Current tax liabilities	39	-	39
Other liabilities	564	-	564
TOTAL EQUITY AND LIABILITIES	**14,908**	**168**	**15,076**

The main restatements resulting from fair value adjustments of the assets acquired and liabilities assumed are:

(1) Cancellation of historical goodwill (€(2,859) million).

(2) Adjustment of the fair value of intangible assets (€1,721 million), comprising:

- Creation of intangible assets representing the Edison brand (€945 million) and customer relations (€190 million)

The brand has been valued by using the relief from royalty method and "scoring" based on a market study designed to position Edison in relation to its main competitors on the Italian market.

As the Edison brand is a very well-known brand in Italy and the Group intends to continue using it in the long term, its useful life has been considered indefinite.

The fair value assigned to the Edison brand is sensitive to changes in the following main assumptions:

  - royalty rates;
  - discount rates applied to future cash flows.

- Revaluation of hydropower concession assets (intangibles) (€1,165 million)

The fair value of hydropower concessions was determined by the discounted future cash flows method, based on the most recent available Edison business plan (the 2012-2019 plan) and assuming systematic renewal of current concessions for a 20-year duration from the renegotiation date, although on revised financial terms.
A conservative approach was taken, applying a risk premium to the rate used to discount cash flows, and limiting the assumed renewal of concessions to a 20-year duration. Italian regulations on such matters are currently in preparation, and 20 years is expected to be the minimum duration for future concessions.

This fair value is sensitive to changes in the following main assumptions:

  - occurrence, duration and terms of concession renewals;
  - electricity market prices in Italy;
  - cash flow discount rates.

Hydropower concession assets are depreciated over the assumed duration of the concession (26 years on average).

€204 million (net of taxes) of this revaluation of hydropower concession assets is attributable to minority interests.

- Revaluation of long-term gas supply contracts (€230 million)

Long-term gas supply contracts have been revalued using the discounted future cash flows method, based on the most recent available Edison business plan (the 2012-2019 plan).
This fair value is sensitive to changes in the following main assumptions:

  - gas and electricity market prices in Italy;
  - Edison's margin levels on contract renegotiations, both ongoing and future;
  - cash flow discount rates.

Intangible assets related to long-term supply contracts are amortised on the basis of volumes and contract durations (from 8 to 23 years).

- Reclassification of Exploration-Production assets as tangible assets (€(975) million)

In determining Edison's initial balance sheet, Exploration-Production assets, which were included in intangible assets in Edison's historical balance sheet in the amount of €975 million – mainly concerning Abu Qir in Egypt – were reclassified as tangible assets. A fair value for hydrocarbon reserves is thus visible in the balance sheet.

(3) Fair value adjustments of tangible assets, amounting to €1,306 million, mainly result from reclassification of Exploration-Production assets (see before) and revaluation of certain electricity generation assets (fossil-fired and wind power assets) and Exploration-Production assets.

(4) Deferred taxes (€(1,157) million)
Restatements of deferred taxes correspond solely to tax effects associated with fair value adjustments carried out for determination of the initial balance sheet.

(5) Other fair value adjustments
Other adjustments mainly concern contingent liabilities and financial liabilities.

Fair value adjustments of TdE assets and liabilities (excluding Edison shares) mainly result from remeasurement of financial liabilities to fair value (€5 million net of taxes).

No significant change has been made to the initial balance presented in the condensed half-year consolidated financial statements at 30 June 2012.

3.1.4.2 Determination of provisional goodwill

The provisional goodwill recognised on the operation is as follows:

(in millions of Euros)	
Fair value of previously-held investment	1,709
Acquisition price of the investment	784
Fair value of non-controlling interests [1]	991
Price adjustment clause/costs borne by Delmi	(24)
Purchase consideration transferred at 24 May 2012	**3,460**
Fair value of Edison net assets acquired	5,672
Fair value of TdE net assets acquired (excluding Edison shares) [2]	(1,189)
Fair value of assets acquired and liabilities assumed	**4,483**
PROVISIONAL NEGATIVE GOODWILL	**(1,023)**

(1) After application of the "full goodwill" method, based on the price of the mandatory tender offer to minority shareholders, i.e. €0.89 per Edison share.
(2) Excluding Edison shares, TdE's balance sheet mainly comprises financial liabilities.

In compliance with IFRS 3, the process for identifying items included in calculating the negative goodwill has been verified and validated to confirm the existence of this income, and the negative goodwill has been included as income in net income (EDF's share) for 2012.

3.1.5 Sensitivity analyses

The main assumptions to which assets and liabilities in the initial balance sheet are sensitive are:

- gas and electricity market prices in Italy;
- gas and electricity sales volumes included in the Edison business plan (the 2012-2019 plan);
- royalty rates used to value the Edison brand;
- financial terms of long-term gas supply contracts;
- assumptions concerning renewal of hydropower concessions (duration, financial terms, etc);
- discount rates by country.

In compliance with IFRS 3, the values of the assets acquired and the liabilities assumed are provisional, and the Group has 12 months to finalise allocation of the purchase price.

If the initial balance sheet is adjusted within the allocation deadline but after 31 December 2012, the fact that the goodwill is negative would lead to recognition of any impacts of the Edison takeover in the Group's income statement. A change in the fair values used would thus have an equivalent impact on the EDF Group's net income (a decline or increase in the value of the assets would lead respectively to a loss or gain).

3.1.6 Impact of the operation on the Group's net indebtedness at 31 December 2012

The takeover of Edison and TdE has the following impacts on consolidated net indebtedness at 31 December 2012.

(in millions of Euros)	
Acquisition price for the shares of TdE	784
Sale price for Edison's disposal of Edipower	(684)
Purchase price for Edison shares (mandatory public offer)	869
Net payments	**969**
Effects of changes in scope/Edison	2,217
Effects of changes in scope/TdE	634
Effects of changes in scope/sale of Edipower	(515)
Effects of fair value measurement of financial liabilities of TdE/Edison	(46)
Effects of fair value measurement of financial liabilities of TdE/Edison	**2,290**
INCREASE/(DECREASE) IN NET INDEBTEDNESS	**3,259**

3.1.7 Effects of the takeover of Edison on the Group's main income statement indicators in 2012

If the takeover of Edison had taken place at 1 January 2012, the impacts on the Group's main income statement indicators would have been as follows:

(in millions of Euros)	2012 as published	2012 as proforma [1]	Change
Sales	72,729	75,223	+2,494
EBITDA	16,084	16,201	+117
Net income (EDF share)	3,316	3,288	(28)

(1) Data for 2012 with full consolidation of Edison from 1 January 2012 (from 24 May 2012 in the published figures).

3.2 Edison – renegotiation of long-term gas supply contracts

During the second half of 2012, the Court of Arbitration of the ICC (International Chamber of Commerce) ruled in favour of Edison in the litigations over price revisions for the long-term gas supply contracts with Rasgas (Qatar) and ENI (Libya).

This generated a positive impact of €680 million (including €347 million for years prior to 2012), which is included in the EDF group's EBITDA for 2012.

An arbitration procedure is still in progress concerning the gas supply contract with Sonatrach (Algeria). The statements of position are expected to be submitted in 2013.

3.3 Developments relating to the Flamanville 3 EPR project

3.3.1 Flamanville 3

In December 2012 EDF announced that the cost of constructing the Flamanville 3 project was to be revised upwards by €2 billion from the cost (of around €6 billion at constant 2008 values) announced in July 2011. The first marketable electricity output is scheduled for 2016.

In addition to the "lead unit" effect, certain other factors have affected the full cost of construction: changes in the boiler design, additional engineering studies, incorporation of new regulatory requirements and the lessons learned from Fukushima. The revised cost also reflects the additional expenditure associated with industrial contingencies, such as replacement of the supports for the reactor building polar crane and its effect on the work schedule, as well as the financial impact of extending construction deadlines.

3.3.2 Termination of the overall nuclear partnership between EDF and ENEL

In November 2007, EDF and ENEL signed a series of agreements governing cooperation for nuclear operations, under the terms of which ENEL took a 12.5% stake in the Flamanville EPR project.

Given the changes in the economic environment and the project itself, as well as the discontinuation of the Italian nuclear revival programme following the June 2011 referendum, ENEL and EDF announced on 4 December 2012 that they were ending their cooperation. They consequently waived their respective options in each other's programmes, and ENEL withdrew from the Flamanville EPR project with effect from 19 December 2012. EDF therefore reimbursed ENEL's investment in the project, totalling €658 million including penalties. In return, EDF will have full rights to the electricity generated by Flamanville 3.

3.4 Significant events and transactions of 2011

3.4.1 Simplified alternative public cash or exchange offer for EDF Énergies Nouvelles

On 8 April 2011 the EDF group, which already owned 50% of EDF Énergies Nouvelles, launched a simplified alternative public offer to acquire all the shares in EDF Énergies Nouvelles, for a cash consideration or in exchange for shares.

The offer closed on 16 June 2011, and the Group acquired the shares tendered for the sum of €1,351 million, raising its ownership of EDF Énergies Nouvelles to 96.71%.

EDF then proceeded with a compulsory squeeze-out of shares not tendered to the offer, at the price of €40 per share.

After this operation, EDF Énergies Nouvelles remained fully consolidated, with the Group's percentage interest at 100% from 29 June 2011.

3.4.2 Sale of the investment in EnBW

The disposal of the Group's holding in EnBW was completed on 17 February 2011. On that date, in application of the agreements signed by the two parties on 6 December 2010, the sum of €4.5 billion was paid to the EDF group in addition to the €169 million downpayment received on 16 December 2010. The net gain on the sale is €304 million (€327 million before taxes, included in "Other income and expenses").

↗ Note 4. Regulatory events in France

4.1 Agreement on recovery of deficits related to the CSPE

The Contribution to the Public Electricity Service (*Contribution au Service Public de l'Électricité* or CSPE) is a contribution set by the State and collected directly from the end-user of electricity to compensate for certain public service charges borne by EDF. It is intended to finance the rise in renewable energies, social tariffs and tariff equalisation.

Since 2007, the amount of CSPE collected has been unable to cover these charges, despite a system of regular rises in the CSPE introduced by the French finance law of 2011, and the resulting shortfall was affecting Group indebtedness.

Under the agreement reached with the French authorities and announced on 14 January 2013, EDF is to receive reimbursement of the receivable consisting of the CSPE shortfall at 31 December 2012 (€4.3 billion) and the costs of bearing this shortfall for the Group (€0.6 billion). The final amount of the receivable will only be set in 2013 after the deliberations of the French Market Regulator CRE (*Commission de Régulation de l'Énergie*) for recognition of the 2012 public service expenses.

A progressive reimbursement schedule for this €4.9 billion receivable was validated in the agreement. It runs until 2018, and bears interest at market rates (1.72%) which will be included in financial income in the Group's consolidated financial statements.

Following conclusion of this agreement, the Group recorded financial income of €0.6 billion at 31 December 2012, and transferred the CSPE receivable from "Other receivables" to "Financial loans and receivables" at an amount of €4.3 billion.

4.2 "NOME" Law – European Commission decision

On 12 June 2012 the European Commission announced that subject to conditions, it approved the State aid contained in the regulated electricity tariffs in France. In 2007 the Commission had opened an investigation into the regulated tariffs for sales to business customers (the "yellow" and "green" tariffs and the TaRTAM transition tariff). Since then, France's NOME law on the new electricity market organisation has modified the French legislative and regulatory context by discontinuing the TaRTAM transition tariff, programming the end of the "yellow" and "green" tariffs for the end of 2015 and setting up a scheme for regulated access to nuclear power (named ARENH, for *Accès Régulé à l'Électricité Nucléaire Historique*) for all suppliers of customers located in France.

Following an inquiry, the European Commission concluded that the business tariffs constitute State aid, but are nevertheless compatible with European law provided:

- the ARENH price remains at €42/MWh until the Commission gives approval of the methodology used to set the ARENH price;
- there is a gradual move towards cost-based pricing every year from the summer of 2012, until the "yellow" and "green" tariffs cease to exist at the end of 2015.

This decision marks the end of the European Commission's investigation concerning State aid.

↗ Note 5. Changes in the scope of consolidation

In addition to the EDF group's takeover of Edison as described in note 3.1, the main changes in the scope of consolidation during 2012 concern the following entities.

5.1 Poland

The purchase of EnBW's investments in subsidiaries ERSA, Kogeneracja and EDF Polska was completed on 16 February 2012 for the sum of €301 million. Following this transaction EDF now owns 97.4% of ERSA and 50% plus one share in Kogeneracja. Kogeneracja and Zielona Gora are again fully consolidated as of 16 February 2012, having been proportionally consolidated since 17 February 2011 after the sale of EnBW (EDF's holdings were respectively 33.4% and 32.9% at 31 December 2011).

The acquisition of minority interests in ERSA is treated as a transaction between shareholders in accordance with IAS 27 (amended), and as a result has an impact of €(124) million on equity in the Group's consolidated financial statements.

In application of IFRS 3 (revised), a €(10) million loss on sale was also recorded in 2012 corresponding to the previous ownership share in Zielona Gora and Kogeneracja. The additional goodwill associated with this operation is below €1 million.

5.2 Photowatt/PV Alliance

EDF's offer for the activities of Photowatt was accepted on 27 February 2012. Via its subsidiary EDF Énergies Nouvelles Réparties (EDF ENR), the Group took possession of the assets of Photowatt and took control of PV Alliance on 1 March 2012. This takeover of business has no significant impact on the Group's consolidated financial statements at 31 December 2012.

5.3 Enerest

On 1 April 2012 Électricité de Strasbourg acquired 100% of Enerest, the longstanding gas supplier to the economic region of Strasbourg. The acquisition price was €139 million. Following establishment of a provisional initial balance sheet, intangible assets (principally concerning customer relations and the "Gaz de Strasbourg" brand) were valued at €38 million before tax effects.
The provisional goodwill on this operation recorded in the consolidated financial statements at 31 December 2012 amounts to €89 million.

↗ Note 6 Segment reporting

6.1 Reporting by operating segment

Segment reporting presentation complies with IFRS 8, "Operating segments".

Segment reporting is determined before inter-segment eliminations. Inter-segment transactions take place at market prices.

In accordance with IFRS 8, the breakdown used by the EDF group corresponds to the operating segments as regularly reviewed by the Management Committee. The Group uses the following segments:

- "**France**": EDF, RTE Réseau de Transport d'Électricité and ERDF, comprising the deregulated activities (mainly Generation and Supply), network activities (Distribution and Transmission) and island activities;
- "**United Kingdom**": the entities of the EDF Energy subgroup including EDF Energy Nuclear Generation Ltd and EDF Development Company Ltd;
- "**Italy**": all the entities located in Italy, principally the Edison subgroup, TdE and Fenice;
- "**Other international**": EDF International and the other gas and electricity entities located in continental Europe, the US, Latin America and Asia;
- "**Other activities**": all the group's other investments, including EDF Trading, EDF Énergies Nouvelles, Dalkia, Tiru, Électricité de Strasbourg and EDF Investissements Groupe.

No segments have been merged.

6.1.1 At 31 December 2012

(in millions of Euros)	France	United Kingdom	Italy	Other international	Other activities	Inter-segment eliminations	**Total**
External sales	39,120	9,739	10,098	7,976	5,796	-	72,729
Inter-segment sales	585	-	-	212	632	(1,429)	-
TOTAL SALES	**39,705**	**9,739**	**10,098**	**8,188**	**6,428**	**(1,429)**	**72,729**
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTISATION	**9,930**	**2,054**	**1,019**	**1,067**	**2,014**	**-**	**16,084**
OPERATING PROFIT	**5,566**	**972**	**265**	**86**	**1,356**	**-**	**8,245**
Balance sheet:							
Intangible assets and property, plant and equipment	86,077	13,206	10,017	8,784	11,783	-	129,867
Investments in associates	4,786	25	51	2,111	582	-	7,555
Goodwill	-	8,339	-	605	1,468	-	10,412
Other segment assets (1)	27,627	4,332	4,102	1,825	7,310	-	45,196
Assets classified as held for sale	-	240	1	-	-	-	241
Other non-allocated assets							56,847
TOTAL ASSETS	**118,490**	**26,142**	**14,171**	**13,325**	**21,143**	**-**	**250,118**
Other information:							
Investments in intangible assets and property, plant and equipment	8,235	1,643	438	490	2,580	-	13,386
Net depreciation and amortisation	(4,186)	(888)	(644)	(590)	(541)	-	(6,849)
Impairment	-	(234)	(44)	(389)	(85)	-	(752)

(1) Other segment assets include inventories, trade receivables and other receivables.

6.1.2 At 31 December 2011

(in millions of Euros)	France	United Kingdom	Italy	Other international	Other activities	Inter-segment eliminations	Total
External sales	37,171	8,568	6,552	7,501	5,515	-	65,307
Inter-segment sales	578	8	-	185	620	(1,391)	-
TOTAL SALES	**37,749**	**8,576**	**6,552**	**7,686**	**6,135**	**(1,391)**	**65,307**
OPERATING PROFIT BEFORE DEPRECIATION AND AMORTISATION	**9,196**	**1,942**	**592**	**1,280**	**1,929**	**-**	**14,939**
OPERATING PROFIT	**5,461**	**1,026**	**(155)**	**997**	**1,123**	**-**	**8,452**
Balance sheet:							
Intangible assets and property, plant and equipment	80,537	12,682	3,965	8,966	10,520	-	116,670
Investments in associates	4,620	25	24	2,302	573	-	7,544
Goodwill	-	8,260	1,400	599	1,389	-	11,648
Other segment assets [1]	27,604	4,647	1,837	1,792	8,918	-	44,798
Assets classified as held for sale	-	-	700	1	-	-	701
Other non-allocated assets							50,601
TOTAL ASSETS	**112,761**	**25,614**	**7,926**	**13,660**	**21,400**	**-**	**231,962**
Other information:							
Investments in intangible assets and property, plant and equipment	7,378	1,179	318	437	1 822	-	11,134
Net depreciation and amortisation	(3,899)	(966)	(427)	(528)	(465)	-	(6,285)
Impairment	-	-	(320)	(53)	(267)	-	(640)

(1) Other segment assets include inventories, trade receivables and other receivables.

6.2 Sales to external customers, by product and service group

The Group's sales are broken down by product and service group as follows:

- "**Generation/Supply**": energy generation and energy sales to industry, local authorities, small businesses and residential consumers. This segment also includes commodity trading activities;
- "**Distribution**": management of the low and medium-voltage public distribution network;
- "**Other**": energy services (district heating, thermal energy services, etc) for industry and local authorities, and new businesses 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	Other	Eliminations [1]	**Total**
At 31 December 2012:					
External sales:					
– France	25,330	14,194	159	(563)	39,120
– Rest of the world	29,264	431	3,914	-	33,609
TOTAL SALES	**54,594**	**14,625**	**4,073**	**(563)**	**72,729**
At 31 December 2011:					
External sales:					
– France	24,535	13,099	123	(586)	37,171
– Rest of the world	24,092	432	3,612	-	28,136
TOTAL SALES	**48,627**	**13,531**	**3,735**	**(586)**	**65,307**

(1) Eliminations between deregulated activities: €(31) million for 2012, €(30) million for 2011.

Income statements

Note 7 Sales

Sales are comprised of:

(in millions of Euros)	**2012**	2011
Sales of energy and energy-related services	67,538	60,143
Other sales of goods and services	4,388	4,247
Trading	803	917
SALES	**72,729**	**65,307**

As well as the organic growth resulting from price and volume effects, the sales growth of 2012 was the effect of changes in the scope of consolidation (chiefly Edison) and favourable foreign exchange effects, largely due to the rise of the pound sterling against the Euro.

Note 8 Fuel and energy purchases

Fuel and energy purchases comprise:

(in millions of Euros)	**2012**	2011
Fuel purchases used - power generation	(13,815)	(9,922)
Energy purchases	(15,279)	(13,957)
Transmission and delivery expenses	(8,191)	(6,841)
Gain/loss on hedge accounting	73	274
(Increase)/decrease in provisions related to nuclear fuels and energy purchases	114	251
FUEL AND ENERGY PURCHASES	**(37,098)**	**(30,195)**

Fuel purchases used include costs relating to raw materials for energy generation (coal, biomass, oil, propane, fissile materials, nuclear fuels and gas), purchases of services related to the nuclear fuel cycle, and costs associated with environmental schemes (mainly CO_2 emission rights and renewable energy certificates).

Energy purchases include energy generated by third parties, including energy derived from cogeneration intended for resale.

The rise in fuel and energy purchases in 2012 is explained by the same factors as the rise in sales.

Note 9 Other external expenses

Other external expenses comprise:

(in millions of Euros)	**2012**	2011
External services	(11,948)	(10,710)
Other purchases (excluding external services, fuel and energy)	(3,223)	(3,638)
Change in inventories and capitalised production	4 864	4,147
(Increase)/decrease in provisions on other external expenses	220	270
OTHER EXTERNAL EXPENSES	**(10,087)**	**(9,931)**

Note 10 Personnel expenses

10.1 Personnel expenses

Personnel expenses comprise:

(in millions of Euros)	**2012**	2011
Wages and salaries	(7,400)	(7,119)
Social contributions	(1,641)	(1,346)
Employee profit sharing	(211)	(211)
Other contributions related to personnel	(372)	(375)
Other expenses linked to short-term benefits	(229)	(206)
Short-term benefits	**(9,853)**	**(9,257)**
Expenses under defined-contribution plans	(795)	(730)
Expenses under defined-benefit plans	(692)	(697)
Post-employment benefits	**(1,487)**	**(1,427)**
Other long-term expenses	(282)	(116)
Termination payments	(2)	(2)
Other personnel expenses	**(284)**	**(118)**
PERSONNEL EXPENSES	**(11,624)**	**(10,802)**

10.2 Average workforce

	2012	2011
IEG status	98,783	96,385
Other	55,947	55,419
AVERAGE WORKFORCE	**154,730**	**151,804**

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 18,967 full-time employees at 31 December 2012 (22,504 full-time equivalent employees at 31 December 2011).

Note 11 Taxes other than income taxes

Taxes other than income taxes break down as follows:

(in millions of Euros)	**2012**	2011
Payroll taxes	(221)	(209)
Energy taxes	(1,435)	(1,396)
Other non-income taxes	(1,631)	(1,496)
TAXES OTHER THAN INCOME TAXES	**(3,287)**	**(3,101)**

↗ Note 12 Other operating income and expenses

Other operating income and expenses comprise:

(in millions of Euros)	Notes	2012	2011
Operating subsidies	12.1	4,824	3,679
Net income/(expense) associated with the TaRTAM transition tariff system	12.2	93	(132)
Net income on deconsolidation		75	140
Gains on disposal of property, plant and equipment	12.3	116	79
Net increase in provisions on current assets		(235)	(54)
Net increase in provisions for operating contingencies and losses	12.4	119	217
Other items	12.5	459	(268)
OTHER OPERATING INCOME AND EXPENSES		**5,451**	**3,661**

12.1 Operating subsidies

This item mainly comprises the subsidy received or receivable by EDF in respect of the Contribution to the Public Electricity Service (CSPE), reflected in the financial statements through recognition of income of €4,687 million for 2012 (€3,556 million for 2011). The difference is largely attributable to the higher volumes of purchase obligations, essentially for photovoltaic and wind power, and fuel purchases in non-interconnected zones.

12.2 Net income/(expense) associated with the TaRTAM transition tariff system

Other operating income and expenses in 2012 include €93 million of income resulting from the CRE's decision of 9 October 2012 setting the final charge for the TaRTAM transition tariff sytem.

In 2011, other operating income and expenses included a net expense of €(132) million for the TaRTAM system. This net amount includes €(170) million resulting from the decision of 4 July 2011 issued after the CRE's re-estimation of the cost based on information provided by the suppliers concerned.

12.3 Gains on disposal of property, plant and equipment

In 2012 this item chiefly results from gains on sales of real estate assets in France, amounting to €270 million.
In 2011 it mainly reflected gains on sales of real estate assets in France and the United Kingdom.

12.4 Net increase in provisions for operating contingencies and losses

In 2012, the net increase in provisions for operating contingencies and losses includes €139 million corresponding to reversals of fair value on British Energy commodity sales contracts recognised at the acquisition date of 5 January 2009, following their settlement (€318 million in 2011).

12.5 Other items

In 2012, Other items include €347 million corresponding to the effects of the rulings in Edison's favour in the litigations over price revisions for the long-term gas supply contracts with Rasgas (Qatar) and ENI (Libya).

↗ Note 13 Impairment/reversals

13.1 Impairment by category of asset

Details of impairment recognised and reversed are as follows:

(in millions of Euros)	Notes	**2012**	2011
Impairment of goodwill	18	(52)	(655)
Impairment of other intangible assets	19	(27)	(88)
Impairment of tangible assets and discontinued operations [(1)]	21-22-46	(727)	(620)
Reversal of the provision in respect of operations in Italy		54	723
IMPAIRMENT NET OF REVERSALS		**(752)**	**(640)**

(1) Including €(74) million for discontinued operations in 2012.

13.2 Impairment tests on goodwill and other assets and recognition of impairment

The following tables give details of impairment tests carried out on the main goodwill, intangible assets with indefinite useful lives and other Group assets in 2012, and the key assumptions used.

Impairment of goodwill and intangible assets with indefinite useful lives

Operating segment	Cash-Generating Unit or asset	WACC after tax	Growth rate beyond medium term plan	**Impairment 2012** *(in millions of Euros)*
United Kingdom	EDF Energy – nuclear	7.2%	-	-
United Kingdom	EDF Energy – ESCS	7.2%	1.9%	-
Italy	Edison – Edison brand	7.5 to 7.8%	2%	-
Other international	EDF Luminus	6.6%	2%	-
Other activities	EDF Énergies Nouvelles CGU	12.3%	-	(37)
Other activities	Dalkia International	8.1%	2%	-
Other impairment of goodwill				(15)
TOTAL				**(52)**

Impairment of other assets

Operating segment	Cash-Generating Unit or asset	Impairment indicators	WACC after tax	Growth rate beyond medium term plan	**Impairment 2012** *(in millions of Euros)*
United Kingdom	EDF Energy – ESCS	Decline in sparkspreads (West Burton B plant) and sale of Sutton Bridge plant	7.2%	-	(234)
Italy	Edison CGU	Economic situation in Greece	15%	-	(44)
Other international	CENG	Decline in long-term electricity price scenarios	6.6%	-	(396)
Other impairment of assets					(26)
TOTAL					**(700)**

In 2011, impairment totalled €(640) million and mainly concerned Edison (€(320) million, principally relating to the sale of Edipower to Delmi) and Dalkia International (€(151) million, principally on renewable energy activities in Italy).

United Kingdom

EDF Energy's goodwill amounts to €8,339 million at 31 December 2012. Impairment testing is based on two different Cash Generating Units (CGUs):

- Nuclear activities, including power plants in operation and plans to develop new EPRs;
- Energy Sourcing and Customer Supply (ESCS), including development of the West Burton plant.

The recoverable value of the nuclear activities is estimated based on discounted future net cash flows from the generation units over their estimated useful life, taking into consideration the probable extension of the useful lives of the AGRs (Advanced Gas Reactors) and Sizewell B. The approval of the 7-year extensions for the Hinkley Point B and Hunterston B reactors in December 2012 confirms the validity of the assumptions adopted by the Group. The assumptions regarding electricity price movements in the United Kingdom take account of the need to develop new generation facilities to meet demand from 2020, especially due to retirement of existing coal-fired plants, and a recovery in nuclear power over the same horizon. The greenhouse gas emission rights prices used for the impairment tests were determined on a basis that reflects application of energy market reforms.

The recoverable value of the Nuclear CGU is sensitive to assumptions regarding long-term movements in electricity prices and WACC, mainly as a result of the operating lifetimes of nuclear plants, but using a WACC one half-point higher would not lead to impairment on this CGU. Also, if the number of EPRs constructed was reduced from 4 to 2 the recoverable value of the CGU would remain higher than its book value.

The recoverable value of ESCS is based on the value in use, determined by reference to the entity's 3-year medium-term plan. Terminal value is determined using an after-tax growth rate to infinity of 1.9%.

When it acquired British Energy in 2009, EDF Energy made a commitment to the European Commission to dispose of its investment in the Sutton Bridge gas plant. A sale agreement subject to conditions was signed in December 2012. The Sutton Bridge plant is recorded as discontinued operations at 31 December 2012 at its sale price less selling expenses, leading to recognition of impairment amounting to €74 million.

The West Burton plant is a 1,305 MW combined cycle gas plant scheduled to begin commercial operation in the first half of 2013. In view of the substantial decline in sparkspreads in 2012, the plant was subjected to an impairment test. Its recoverable value is estimated based on discounted cash flows over its expected useful life. Impairment testing on these bases led to recognition of impairment of €160 million in 2012.

Italy – Edison

After the takeover of Edison, finalised on 24 May 2012, and determination of the initial balance sheet for the purposes of the operation, the EDF group's consolidated financial statements no longer record any goodwill associated with the Edison subgroup (see note 3.1). However, since that date, an intangible asset with indefinite useful life of €945 million representing the Edison brand has been recognised in the consolidated financial statements.

In application of the Group's accounting policies as presented in note 1.3.15, the Edison brand was subjected to an impairment test that did not lead to recognition of any impairment. This test was based on cash flows from the medium-term plan, using an after-tax discount rate of 7.5% to 7.8%.

Impairment of €44 million was recorded in respect of other Edison assets in 2012 (including €20 million for fossil-fired generation assets in Greece).

Other international

EDF Luminus

EDF Luminus' goodwill amounted to €383 million at 31 December 2012. For the purposes of impairment testing EDF Luminus is considered as a single cash-generating unit. The recoverable value is based on its value in use, determined using cash flows over 20 years and a terminal value.

Under the plan to withdraw from civil nuclear energy, confirmed by the Belgian government in July 2012, Belgian nuclear power plants are to close by 2025. For the purposes of determining cash flows, it was thus considered that the nuclear plants in which EDF Luminus holds investments will close by 2025, and that the electricity generated by those plants will be replaced by power from a combined cycle gas plant. The impairment test also assumes that electricity sale prices will decrease due to greater competition.

Impairment testing on these bases did not lead to recognition of any impairment in 2012.

CENG

The recoverable value of CENG's assets is estimated based on future cash flows over the estimated useful life of generation facilities. In the United States, the decline in gas prices as shale gas operations expanded caused a significant downturn in long-term electricity prices, which is an indication of impairment. The impairment test was based on the economic assumptions that basic energy generation in the United States will be based on gas, obsolete power plants will be shut down and greenhouse gas regulation will remain at a modest level. On these bases, the impairment test led to recognition of impairment of €396 million in respect of CENG's assets.

Other activities

Dalkia International

Dalkia International's goodwill amounted to €800 million at 31 December 2012. The recoverable value of assets is estimated based on values in use taken from the 5-year medium-term plan and a terminal value.

The impairment test did not lead to recognition of any impairment in 2012.

EDF Énergies Nouvelles

At 1 March 2012 EDF ENR Photowatt and PV Alliance joined EDF Énergies Nouvelles' scope of consolidation. It was decided to write off these companies' assets in full in the opening balance sheet due to the negative cash flows reflected in the medium-term plans.

Also, due to the macroeconomic situation in Greece, development activities in the country were halted until conditions improve. Goodwill for Greece has therefore been fully impaired.

↗ Note 14 Other income and expenses

Other income and expenses in 2012 include:

- income of €160 million concerning ERDF, resulting from reversal of a provision for renewal following a change in estimate for the useful life of high/low voltage transformers (extended from 30 years to 40 years);
- the effects of the Group's takeover of Edison, amounting to €(58) million. Details of the impacts of this operation are presented in note 3.1;
- a net expense of €(70) million associated with revision of the estimated costs for decommissioning permanently shut-down nuclear power plants in France (UNGG power plants, Creys-Malville, Brennilis and Chooz A), and the revision of certain costs associated with interim storage of spent fuel – see note 29.1.

Other income and expenses in 2011 included:

- income of €414 million corresponding to reversals from provisions for renewal of ERDF's concession assets, following a change in estimate for the useful life of low-voltage twisted overhead pipes (extended from 40 to 50 years);
- income of €327 million corresponding to the gain on sale of EnBW.

↗ Note 15 Financial result

15.1 Cost of gross financial indebtedness

Details of the components of the cost of gross financial indebtedness are as follows:

(in millions of Euros)	**2012**	2011
Interest expenses on financing operations	(2,538)	(2,284)
Change in the fair value of derivatives and hedges of liabilities	39	(5)
Transfer to income of changes in the fair value of cash flow hedges	(39)	(3)
Net foreign exchange gain on indebtedness	95	21
COST OF GROSS FINANCIAL INDEBTEDNESS	**(2,443)**	**(2,271)**

The rise in interest expenses in 2012 reflects the higher average gross financial indebtedness over the year.

15.2 Discount effect

The discount effect primarily concerns provisions for the back-end nuclear cycle, decommissioning and last cores, and long-term and post-employment employee benefits.

Details of this expense are as follows:

(in millions of Euros)	**2012**	2011
Provisions for long-term and post-employment employee benefits	(1,392)	(1,337)
Provisions for back-end nuclear cycle, decommissioning and last cores	(1,889)	(1,554)
Other provisions and advances	(4)	(173)
DISCOUNT EFFECT	**(3,285)**	**(3,064)**

The higher discount effect in 2012 on provisions for back-end nuclear cycle, decommissioning and last cores generated a €(244) million expense related to revision of the discount rate for France (see note 29.1.5).

Following termination of the industrial nuclear partnership between EDF and ENEL, the discount effect on other provisions and advances in 2012 includes income of €101 million resulting from reversal of discount expenses on advances received from ENEL, which were reimbursed at the end of the year.

15.3 Other financial income and expenses

Other financial income and expenses comprise:

(in millions of Euros)	**2012**	2011
Financial income on cash and cash equivalents	38	44
Gains (losses) on available-for-sale financial assets	708	137
Gains (losses) on other financial assets	968	568
Changes in financial instruments carried at fair value with changes in fair value included in income	(70)	86
Other financial expenses	(245)	(95)
Foreign exchange gain/loss on financial items other than debts	(93)	(36)
Return on hedging assets	635	597
Capitalised borrowing costs	425	254
OTHER FINANCIAL INCOME AND EXPENSES	**2,366**	**1,555**

Gains net of expenses on available-for-sale financial assets include gains on disposals, interest income, and dividends.

The gain on other financial assets at 31 December 2012 includes an amount of €629 million for accumulated prior costs borne in connection with the CSPE system (see note 4.1).

The fair value of Veolia Environnement shares at 31 December 2011 was more than 50% lower than their historical value, and as a result impairment of €(340) million was recorded against available-for-sale financial assets.

In 2011, "Gains (losses) on other financial assets" included income of €232 million resulting from a debt waiver by the CEA (French Atomic Energy commission), relating to a loan from the CEA to EDF for construction of the Creys-Malville plant.

↗ Note 16 Income taxes

16.1 Breakdown of tax expense

Details are as follows:

(in millions of Euros)	**2012**	2011
Current tax expense	(1,619)	(1,690)
Deferred taxes	33	354
TOTAL	**(1,586)**	**(1,336)**

In 2012, €(1,058) million of the current tax expense relates to EDF's tax consolidated group in France, and €(561) million relates to other subsidiaries (€(1,005) million and €(685) million respectively in 2011).

16.2 Reconciliation of the theoretical and effective tax expense (tax proof)

(in millions of Euros)	**2012**	2011
Income of consolidated companies before tax	4,883	4,672
Income tax rate applicable to the parent company	36.10%	36.10%
Theoretical tax expense	(1,763)	(1,687)
Differences in tax rate	349	329
Permanent differences	(62)	65
Taxes without basis	49	(78)
Depreciation of deferred tax assets	(167)	36
Other	8	(1)
ACTUAL TAX EXPENSE	**(1,586)**	**(1,336)**
EFFECTIVE TAX RATE	**32.48%**	**28.60%**

The effective tax rate for 2012 and 2011 was driven up by impairment. After adjustment for this factor, the effective tax rate is 29.1% and 26.4% respectively for 2012 and 2011.

The main factors explaining the difference between the theoretical tax rate and the effective rate are:

- 2012:
  - the positive impact of differences in tax rates applicable to foreign subsidiaries (€349 million), including €177 million related to the 2-point drop in tax rates in the UK.
- 2011:
  - the positive impact of differences in tax rates applicable to foreign subsidiaries (€329 million), including €177 million related to the 2-point drop in tax rates in the UK;
  - the positive effect of reversals of depreciation of deferred tax assets (€119 million), mainly in the French tax consolidation group.

16.3 Change in deferred tax assets and liabilities

(in millions of Euros)	**2012**	2011
Deferred tax assets	3,159	2,577
Deferred tax liabilities	(4,479)	(4,894)
NET DEFERRED TAXES AT 1 JANUARY	**(1,320)**	**(2,317)**
Change in net income	34	354
Change in equity	506	671
Translation adjustments	(53)	(64)
Changes in scope of consolidation	(1,357)	(18)
Other movements	76	54
NET DEFERRED TAXES AT 31 DECEMBER	**(2,114)**	**(1,320)**
Deferred tax assets	3,487	3,159
Deferred tax liabilities	(5,601)	(4,479)

€550 million of the change in 2012 in deferred tax assets included in equity results from the change in actuarial gains and losses on post-employment benefits (€251 million in 2011).

16.4 Breakdown of deferred tax assets and liabilities by nature

(in millions of Euros)	**31/12/2012**	31/12/2011
Deferred tax assets:		
Differences between depreciation recorded for accounting and tax purposes	185	83
Non-deductible provisions for pension obligations	6,318	4,804
Other non-deductible provisions	731	546
Other deductible temporary differences	1,257	1,214
Revaluations, revaluation surplus and elimination of intercompany profit	656	622
Tax losses and unused tax credits	872	720
Netting of deferred tax assets and liabilities	(3,793)	(3,338)
Deferred tax assets	**6,226**	**4,651**
Unrecorded deferred tax assets	(2,739)	(1,492)
Deferred tax assets in balance sheet	**3,487**	**3,159**
Deferred tax liabilities:		
Differences between depreciation recorded for accounting and tax purposes	(5,570)	(5,785)
Other taxable temporary differences	(849)	(510)
Revaluations, revaluation surplus and elimination of intercompany profit	(2,975)	(1,522)
Netting of deferred tax assets and liabilities	3,793	3,338
Deferred tax liabilities in balance sheet	**(5,601)**	**(4,479)**
NET DEFERRED TAXES	**(2,114)**	**(1,320)**

At 31 December 2012, unrecorded deferred tax assets represent a potential tax saving of €2,739 million (€1,492 million at 31 December 2011). Of the potential tax saving in 2012, €1,831 million relates to deferred tax assets, mainly on employee benefits in France. This is significantly higher than in 2011 (€734 million) due to the change in actuarial gains and losses recorded in equity in 2012.

Note 17 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 31 December 2012, there are no dilutive instruments in the EDF group.

The following table shows the reconciliation of the basic and diluted earnings used to calculate earnings per share (basic and diluted), and the variation in the weighted average number of shares used in calculating basic and diluted earnings per share:

(in millions of Euros)	**2012**	2011
Net income attributable to ordinary shares	3,316	3,148
Effect of dilutive instruments	-	-
Net income used to calculated diluted earnings per share	3,316	3,148
Average weighted number of ordinary shares outstanding during the year	1,847,342,956	1,847,318,156
Average weighted number of diluted shares outstanding during the year	1,847,342,956	1,847,318,156
Earnings per share (in Euros):		
EARNINGS PER SHARE	**1.80**	**1.70**
DILUTED EARNINGS PER SHARE	**1.80**	**1.70**

OPERATING ASSETS AND LIABILITIES, EQUITY

↗ Note 18 Goodwill

18.1 Changes in goodwill

Goodwill on consolidated entities comprises the following:

(in millions of Euros)	**31/12/2012**	31/12/2011
Net book value at opening date	11,648	12,028
Acquisitions	129	21
Disposals	-	(14)
Impairment (note 13)	(52)	(655)
Translation adjustments	209	239
Changes in scope of consolidation and other	(1,522)	29
NET BOOK VALUE AT CLOSING DATE	**10,412**	**11,648**
Gross value at closing date	11,079	12,775
Accumulated impairment at closing date	(667)	(1,127)

The changes in goodwill in 2012 primarily relate to:

- acquisitions, including €89 million recognised after the takeover of Enerest by Électricité de Strasbourg (see note 5.3);
- translation adjustments of €209 million, largely due to the rise of the Pound sterling against the Euro;
- changes in the scope of consolidation, including €(1,400) million for the derecognition of Edison's historical goodwill following determination of the fair value of the assets acquired and liabilities assumed in the takeover operation of 24 May 2012.

The changes in goodwill in 2011 primarily related to:

- impairment amounting to €(655) million, mainly concerning Edison and Dalkia;
- translation adjustments of €239 million, largely due to the rise of the pound sterling against the Euro.

18.2 Goodwill by operating segment

The breakdown of goodwill is as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
EDF Energy	8,339	8,260
Total United Kingdom	8,339	8,260
Edison	-	1,400
Total Italy	-	1,400
EDF Luminus (Belgium)	383	378
ESTAG (Austria)	112	112
Other	110	109
Total Other International	605	599
Dalkia International	800	799
EDF Énergies Nouvelles	195	209
Other	473	381
Total Other activities	1,468	1,389
GROUP TOTAL	**10,412**	**11,648**

↗ Note 19 Other intangible assets

The net value of other intangible assets breaks down as follows:

At 31 December 2012

(in millions of Euros)	31/12/2011	Acquisitions	Disposals	Translation adjustments	Changes in scope	Other movements	**31/12/2012**
Software	1,665	251	(149)	(3)	(21)	29	1,772
Positive fair value of commodity contracts acquired in a business combination	704	-	(29)	(1)	245	(46)	873
Greenhouse gas emission rights – green certificates	366	681	(597)	3	65	(2)	516
Other intangible assets	2,926	220	(9)	34	1,658	203	5,032
Intangible assets in development	1,303	357	-	(1)	-	112	1,771
Gross values	**6,964**	**1,509**	**(784)**	**32**	**1,947**	**296**	**9,964**
Accumulated amortisation and impairment	(2,262)	(659)	160	(6)	626	(198)	(2,339)
NET VALUES	**4,702**	**850**	**(624)**	**26**	**2,573**	**98**	**7,625**

Changes in scope mainly concern the effects of the takeover of the Edison group, particularly recognition of the Edison brand at the value of €945 million, and intangible assets related to hydropower concessions for an amount of €1,165 million. For more details, see note 3.1.4.

Impairment of €(27) million was recorded in respect of other intangible assets in 2012.

At 31 December 2011 *(in millions of Euros)*	31/12/2010	Acquisitions	Disposals	Translation adjustments	Changes in scope	Other movements	31/12/2011
Gross values	6,509	1,216	(777)	25	(8)	(1)	6,964
Accumulated amortisation and impairment	(1,893)	(493)	183	(6)	13	(66)	(2,262)
NET VALUES	**4,616**	**723**	**(594)**	**19**	**5**	**(67)**	**4,702**

Impairment of €(88) million was booked on other intangible assets in 2011.

EDF's research and development expenses recorded in the income statement total €527 million for 2012 (€518 million for 2011).

↗ Note 20 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

(in millions of Euros)	**31/12/2012**	31/12/2011
Property, plant and equipment	45,919	44,342
Property, plant and equipment in progress	1,303	1,159
PROPERTY, PLANT AND EQUIPMENT OPERATED UNDER FRENCH PUBLIC ELECTRICITY DISTRIBUTION CONCESSIONS	**47,222**	**45,501**

20.2 Movements in property, plant and equipment operated under French public electricity distribution concessions (excluding assets in progress)

(in millions of Euros)	Land and buildings	Networks	Other installations, plant, machinery, equipment & other	Total
Gross value at 31/12/2011	2,138	72,345	3,158	77,641
Increases [(1)]	99	3,452	303	3,854
Decreases	(18)	(431)	(129)	(578)
Other movements	(5)	1	(1)	(5)
Gross value at 31/12/2012	**2,214**	**75,367**	**3,331**	**80,912**
Depreciation and impairment at 31/12/2011	(1,164)	(30,066)	(2,069)	(33,299)
Net depreciation	(37)	(184)	(129)	(350)
Disposals	16	344	127	487
Other movements [(2)]	(6)	(1,736)	(89)	(1,831)
Depreciation and impairment at 31/12/2012	**(1,191)**	**(31,642)**	**(2,160)**	**(34,993)**
Net values at 31/12/2011	974	42,279	1,089	44,342
NET VALUES AT 31/12/2012	**1,023**	**43,725**	**1,171**	**45,919**

(1) Increases also include facilities provided by the concession grantors.
(2) Other movements mainly concern depreciation of assets operated under concessions, booked against amortisation recorded in the special concession liabilities.

Note 21 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

The net value of property, plant and equipment operated under concessions for other activities breaks down as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
Property, plant and equipment	6,256	5,326
Property, plant and equipment in progress	926	696
PROPERTY, PLANT AND EQUIPMENT OPERATED UNDER CONCESSIONS FOR OTHER ACTIVITIES	**7,182**	**6,022**

21.2 Movements in property, plant and equipment operated under concessions for other activities (excluding assets in progress)

(in millions of Euros)	Land and buildings	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery, equipment & other	Total
Gross value at 31/12/2011	1,240	9,234	524	1,187	12,185
Increases	32	338	38	42	450
Decreases	(3)	(22)	(5)	(9)	(39)
Translation adjustments	2	(6)	37	5	38
Changes in the scope of consolidation	41	142	-	(1)	182
Other movements	10	(20)	-	(1)	(11)
Gross value at 31/12/2012	**1,322**	**9,666**	**594**	**1,223**	**12,805**
Depreciation and impairment at 31/12/2011	(787)	(5,091)	(261)	(720)	(6,859)
Net depreciation	(24)	(270)	(20)	(46)	(360)
Impairment net of reversals	(1)	(8)	-	-	(9)
Disposals	2	17	5	8	32
Translation adjustments	-	2	(18)	1	(15)
Changes in the scope of consolidation	17	616	-	4	637
Other movements	(1)	25	-	1	25
Depreciation and impairment at 31/12/2012	**(794)**	**(4,709)**	**(294)**	**(752)**	**(6,549)**
Net value at 31/12/2011	453	4,143	263	467	5,326
NET VALUE AT 31/12/2012	**528**	**4,957**	**300**	**471**	**6,256**

At 31 December 2012, property, plant and equipment operated under concessions other than French public electricity distribution concessions comprise concession facilities mainly located in France (hydropower) and Italy.

Changes in the scope of consolidation in 2012 concern the takeover of Edison.

↗ Note 22 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

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)	**31/12/2012**	31/12/2011
Property, plant and equipment	51,392	47,184
Property, plant and equipment in progress	16,130	12,951
Finance-leased property, plant and equipment	316	310
PROPERTY, PLANT AND EQUIPMENT USED IN GENERATION AND OTHER TANGIBLE ASSETS OWNED BY THE GROUP	**67,838**	**60,445**

At 31 December 2012, property, plant and equipment in progress primarily concern EPR construction projects in France and the United Kingdom. Impairment of €(10) million was also recorded in 2012 in respect of property, plant and equipment in progress (€(29) million in 2011).

22.2 Movements in property, plant and equipment used in generation and other tangible assets owned by the Group (excluding assets in progress and finance-leased assets)

(in millions of Euros)	Land and buildings	Nuclear power plants	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery & equipment & other	Total
Gross value at 31/12/2011	11,581	63,043	14,904	821	13,173	103,522
Increases	231	2,195	1,165	51	2,844	6,486
Decreases	(275)	(818)	(104)	(3)	(269)	(1,469)
Translation adjustments	96	155	196	-	1	448
Changes in the scope of consolidation	272	-	1,565	(2)	(535)	1,300
Other movements	23	(371)	143	-	(307)	(512)
Gross value at 31/12/2012	**11,928**	**64,204**	**17,869**	**867**	**14,907**	**109,775**
Depreciation and impairment at 31/12/2011	(6,275)	(35,785)	(8,734)	(430)	(5,114)	(56,338)
Net depreciation	(319)	(2,081)	(691)	(27)	(863)	(3,981)
Impairment net of reversals	(4)	(357)	(198)	-	(75)	(634)
Disposals	109	647	93	3	250	1,102
Translation adjustments	(38)	(30)	(116)	-	(32)	(216)
Changes in the scope of consolidation	12	-	1,083	1	18	1,114
Other movements	15	568	(84)	4	67	570
Depreciation and impairment at 31/12/2012	**(6,500)**	**(37,038)**	**(8,647)**	**(449)**	**(5,749)**	**(58,383)**
Net value at 31/12/2011	5,306	27,258	6,170	391	8,059	47,184
NET VALUE AT 31/12/2012	**5,428**	**27,166**	**9,222**	**418**	**9,158**	**51,392**

Changes in the scope of consolidation in 2012 mainly concern the takeover of Edison during the year.

The lower level of depreciation on nuclear generation facilities in 2012 is primarily explained by the 5-year and 7-year extensions of the operating lifetimes of certain nuclear power plants in the United Kingdom.

In France, the amount of property, plant and equipment rose due to expenses incurred to improve the performance of nuclear units. The reinforced management plan also enhanced monitoring of general maintenance expenditure and scheduled checks carried out at regular intervals. These checks qualify as major inspections and the related costs are capitalised.

22.3 Finance lease contracts

	31/12/2012				31/12/2011
	Total	Maturity			Total
(in millions of Euros)		< 1 year	1 to 5 years	> 5 years	
Future minimum lease payments receivable as lessor	**58**	16	35	7	60
Future minimum lease payments payable as lessee	**478**	39	130	309	149

The Group is the lessor in agreements classified as finance leases under IFRIC 4 and IAS 17, which account for almost all of its finance lease commitments as lessor.
The Group is bound as lessee 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.

Note 23 Investments in associates

Investments in associates are as follows:

(in millions of Euros)	Principal activity [1]	31/12/2012 Ownership %	31/12/2012 Share of net equity	31/12/2012 Share of net income	31/12/2011 Share of net equity	31/12/2011 Share of net income
RTE Réseau de Transport d'Électricité	T	100.00	4,786	407	4,620	272
Alpiq	G	25.00	1,203	(201)	1,396	(276)
Taishan	G	30.00	693	-	688	-
Dalkia Holding	O	34.00	422	(1)	443	23
NTPC	G	40.00	123	27	125	23
Other investments in associates			328	28	272	9
TOTAL			**7,555**	**260**	**7,544**	**51**

(1) G = generation, T= transmission, O = Other.

23.1 RTE Réseau de transport d'Électricite (RTE)

23.1.1 RTE - Financial indicators

The key financial indicators for RTE for 2012 are as follows:

(in millions of Euros)	
Operating profit before depreciation and amortisation	1,610
Net income	407
Equity at 31 December 2012	4,786
Balance sheet total at 31 December 2012	15,625
Net indebtedness at 31 December 2012	6,875

23.1.2 Transactions between the EDF group and RTE

At 31 December 2012 the main transactions between the EDF group and RTE were as follows:

Sales

ERDF uses RTE's high-voltage and very high-voltage networks to convey energy from its point of generation to the distribution networks. This service generated €3,239 million in sales revenues for RTE from ERDF over 2012.

In executing its responsibility to ensure balance in the electricity system, during 2012 RTE also undertook:

- energy purchases and sales with EDF, amounting to €181 million and €205 million respectively;
- system service purchases from EDF amounting to €285 million.

Other transactions

The EDF group contributes to financing of RTE through loans amounting to a total of €1,174 million at 31 December 2012 (€1,400 million at 31 December 2011). RTE recorded a total of €65 million in interest expenses on this loan in 2012.

RTE is also included in the EDF group tax consolidation, under a tax consolidation agreement between the two companies.

23.2 Alpiq

23.2.1 Published financial indicators

The main published indicators by the Alpiq group for 2011 were as follows:

(in millions of Euros)	
2011 Sales	11,334
2011 Net income	(1,093)
Equity at 31 December 2011	5,104
Balance sheet total at 31 December 2011	14,352

23.2.2 Impairment

On 14 December 2012, Alpiq announced that further adjustments would be necessary in view of the difficult market conditions and significant changes in the European energy environment, leading it to step up its cost-cutting programme and recognise additional impairment of €(248) million (EDF's share) in 2012. This impairment is recorded by Alpiq and particularly concerns assets in Switzerland and Italy.

This announcement followed Alpiq's move to refocus business on Switzerland and certain international sectors, initiated in 2011. Impairment of €(320) million (EDF's share) was recognised in investments in associates in the Group's 2011 consolidated financial statements. It was recorded by Alpiq in its consolidated accounts, and mainly concerned its investments in Romande Énergie in Switzerland, and Edipower and A2A in Italy.

↗ Note 24 Inventories

The carrying value of inventories, broken down by nature, is as follows:

	31/12/2012			31/12/2011		
(in millions of Euros)	Gross value	Provisions	Net value	Gross value	Provisions	Net value
Nuclear fuel	10,297	(15)	10,282	9,848	(13)	9,835
Other fuel	2,104	(4)	2,100	1,963	(8)	1,955
Other raw materials	1,298	(217)	1,081	1,095	(196)	899
Work-in-progress for production of goods and services	216	(30)	186	553	(11)	542
Other inventories	625	(61)	564	378	(28)	350
TOTAL INVENTORIES	**14,540**	**(327)**	**14,213**	**13,837**	**(256)**	**13,581**

The long-term portion (more than one year) mainly concerns nuclear fuel inventories amounting to €7,591 million at 31 December 2012 (€6,778 million at 31 December 2011).
The value of EDF Trading's inventories stated at market value is €764 million at 31 December 2012 (€943 million at 31 December 2011).

↗ Note 25 Trade receivables

Details of net trade receivables are as follows:

(in millions of Euros)	31/12/2012	31/12/2011
Trade receivables, gross value – excluding EDF Trading	20,518	17,962
Trade receivables, gross value – EDF Trading	2,927	3,613
Impairment	(948)	(667)
TRADE RECEIVABLES, NET VALUE	**22,497**	**20,908**

Most trade receivables mature within one year.

The credit risk on trade receivables is shown below:

	31/12/2012			31/12/2011		
(in millions of Euros)	Gross value	Impairment	Net values	Gross value	Impairment	Net values
TRADE RECEIVABLES	**23,445**	**(948)**	**22,497**	**21,575**	**(667)**	**20,908**
overdue by up to 6 months	2,144	(251)	1,893	2,019	(193)	1,826
overdue by 6-12 months	688	(211)	477	506	(125)	381
overdue by more than 12 months	1,046	(408)	638	670	(278)	392
Trade receivables due	3,878	(870)	3,008	3,195	(596)	2,599
Trade receivables not yet due	19,567	(78)	19,489	18,380	(71)	18,309

The changes observed in 2012 include the effect of full consolidation of Edison since 24 May 2012.

The Group undertook securitisation of trade receivables for a total of €1,185 million in December 2012, including €774 by the Edison group.
As most securitisation operations are carried out on a recurrent, without-recourse basis, the corresponding receivables are not carried in the Group's consolidated balance sheet.

↗ Note 26 Other receivables

Details of other receivables are as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
Prepaid expenses	1,621	621
CSPE	997	3,821
VAT receivables	2,001	1,869
Other tax receivables	678	595
Other operating receivables	3,189	3,403
OTHER RECEIVABLES	**8,486**	**10,309**
Gross value	8,583	10,363
Impairment	(97)	(54)

Most other receivables mature within one year.

Prepaid expenses in 2012 include past payments for future spent fuel management services, with a corresponding entry in provisions for nuclear generation (see note 29).

At 31 December 2012, the CSPE receivable included in "Other receivables" mainly corresponds to the CSPE to be collected on energy supplied but not yet billed. Under the agreement signed with the French authorities, an amount of €4,250 million corresponding to the shortfall in CSPE compensation at 31 December 2012 has been reclassified as a financial asset (see note 4.1).

↗ Note 27 Equity

27.1 Share capital

At 31 December 2012, the share capital amounted to €924,433,331, comprising 1,848,866,662 fully subscribed and paid-up shares with nominal value of €0.50 each, owned 84.4% by the French State, 13.6% by the public (institutional and private investors) and 1.9% by current and retired Group employees, with 0.1% held by EDF as treasury shares.

Article 24 of the law of 9 August 2004 requires the State to hold more than 70% of the capital of EDF at all times.

27.2 Treasury shares

A share repurchase program authorised by the General Shareholders' Meeting of 9 June 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 was 18 months, renewed for 12 months then by tacit agreement every year.

Under this share repurchase program, for which a liquidity contract exists as required by the market regulator AMF, 8,398,898 shares were acquired during 2012 for a total of €134 million, and 7,413,159 shares were sold for a total of €119 million.

At 31 December 2012, treasury shares deducted from consolidated equity represent 2,161,333 shares with total value of €33 million.

27.3 Dividends

The General Shareholders' Meeting of 24 May 2012 decided to distribute a dividend of €1.15 per share in circulation in respect of 2011. Interim dividends of €0.57 per share had been paid out on 16 December 2011, and the balance of €0.58 per share amounting to a total of €1,072 million was paid out on 6 June 2012.

On 22 November 2012, the Board of Directors decided to distribute an interim dividend of €0.57 per share or a total of €1,053 million for 2012, paid out in cash on 17 December 2012.

In keeping with the amendment to the company's articles of association proposed at the General Shareholders' Meeting of 24 May 2011, shareholders who have held their shares continuously for at least 2 years at the year-end date and still hold them at the dividend distribution date are entitled to a 10% increase in their dividends. The number of shares eligible for this increase cannot be more than 0.5% of the company's capital for a single shareholder. This amendment will take effect for the payment in 2014 of the dividend for the year 2013.

Note 28 Provisions

The breakdown between current and non-current provisions is as follows:

(in millions of Euros)	Notes	31/12/2012 Current	31/12/2012 Non-current	31/12/2012 Total	31/12/2011 Current	31/12/2011 Non-current	31/12/2011 Total
Provisions for back-end nuclear cycle		1,094	18,431	19,525	1,302	17,528	18,830
Provisions for decommissioning and last cores		225	20,754	20,979	173	19,670	19,843
Provisions related to nuclear generation	29	**1,319**	**39,185**	**40,504**	**1,475**	**37,198**	**38,673**
Provisions for decommissioning of non-nuclear facilities	30	**45**	**1,090**	**1,135**	**41**	**809**	**850**
Provisions for employee benefits	31	**912**	**19,540**	**20,452**	**940**	**14,611**	**15,551**
Other provisions	32	**1,618**	**1,873**	**3,491**	**1,606**	**1,338**	**2,944**
TOTAL PROVISIONS		**3,894**	**61,688**	**65,582**	**4,062**	**53,956**	**58,018**

Note 29 Provisions related to nuclear generation – back-end nuclear cycle, plant decommissioning and last cores

Provisions related to nuclear generation comprise provisions for back-end nuclear cycle expenses (management of spent fuel and radioactive waste), provisions for plant decommissioning and provisions for last cores.

Provisions are estimated under the principles presented in note 1.3.2.1.

Obligations can vary noticeably depending on each country's legislation and regulations, and the technologies and industrial practices used in each company.

The movement in provisions for back-end nuclear cycle, provisions for decommissioning and provisions for last cores breaks down as follows:

(in millions of Euros)	31/12/2011	Increases	Decreases: Utilisations	Decreases: Reversals	Changes in scope	Other movements	31/12/2012
Provisions for spent nuclear fuel management	11,530	337	(647)	(21)	-	618	11,817
Provisions for long-term radioactive waste management	7,300	511	(150)	-	-	47	7,708
Provisions for back-end nuclear cycle	**18,830**	**848**	**(797)**	**(21)**	-	**665**	**19,525**
Provisions for nuclear plant decommissioning	16,430	1,262	(234)	-	-	(30)	17,428
Provisions for last cores	3,413	167	-	-	-	(29)	3,551
Provisions for decommissioning and last cores	**19,843**	**1,429**	**(234)**	-	-	**(59)**	**20,979**
PROVISIONS RELATED TO NUCLEAR GENERATION	**38,673**	**2,277**	**(1,031)**	**(21)**	-	**606**	**40,504**

Other changes in provisions related to nuclear generation principally reflect the following effects:

- €(289) million corresponding to the change in amounts reimbursable by the NLF (Nuclear Liabilities Fund) and the British government for coverage of EDF Energy's long-term nuclear obligations (see note 36.4) of which €(616) million result from the 5-year and 7-year extensions to certain nuclear plants' operating lifetimes in 2012;
- €665 million in provisions for spent fuel management relating to future services, with a corresponding entry in prepaid expenses (net income for the period is unaffected).

The breakdown of provisions by company is shown below:

	EDF	EDF Energy	CENG	Other entities	Total
(in millions of Euros)	Note 29.1	Note 29.2	Note 29.3	Note 29.4	
Provisions for spent fuel management	9,498	2,319	-	-	11,817
Provisions for long-term radioactive waste management	7,113	594	-	1	7,708
PROVISIONS FOR BACK-END NUCLEAR CYCLE AT 31/12/2012	**16,611**	**2,913**	**-**	**1**	**19,525**
Provisions for back-end nuclear cycle at 31/12/2011	15,865	2,962	-	3	18,830
Provisions for nuclear plant decommissioning	12,578	4,180	498	172	17,428
Provisions for last cores	2,193	1,309	49	-	3,551
PROVISIONS FOR DECOMMISSIONING AND LAST CORES AT 31/12/2012	**14,771**	**5,489**	**547**	**172**	**20,979**
Provisions for decommissioning and last cores at 31/12/2011	13,378	5,791	519	155	19,843

The decline in EDF Energy's provisions for decommissioning and last cores over 2012 results from the 5-year and 7-year extensions to certain nuclear plants' operating lifetime (€(616) million for decommissioning and €(185) million for last cores).

29.1 Nuclear provisions in France

In France, EDF's provisions are calculated in accordance with the instructions of the law of 28 June 2006 and its implementing provisions.

In compliance with the regulation on secure financing of nuclear expenses:

- EDF books provisions to cover all obligations related to the nuclear facilities it operates;
- EDF is building up a portfolio of dedicated assets for secure financing of long-term obligations (see note 48).

The relevant expenses are estimated based on the economic conditions of the year-end, then spread over a forecast disbursement schedule and adjusted to Euros of the year of payment through application of a forecast long-term inflation rate. To determine the provisions, these amounts are discounted to present value using a nominal discount rate.

29.1.1 Provisions for spent fuel management

These provisions cover services in connection with the following:

- removal of spent fuel from EDF's generation centres, as well as reception and interim storage;
- processing, including conditioning and storage of recyclable matter and waste resulting from this processing.

Processing expenses exclusively concern spent fuel that can be recycled in existing facilities, including the portion in reactors but not yet irradiated.

Expenses are calculated based on forecast physical flows at the closing date. Valuation is based on the contracts signed with AREVA.

At 31 December 2012, the provision for spent fuel management includes the favourable effects of revision of certain costs for interim storage of spent fuel.

29.1.2 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 packages resulting from spent fuel processing at La Hague;
- long-term and direct storage of spent fuel that cannot be recycled on an industrial scale in existing installations: plutonium or uranium fuel derived from enriched processing, fuel from Creys-Malville and Brennilis;
- 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 existing packages of waste and all waste to be conditioned, resulting from plant decommissioning or spent fuel processing at La Hague (based on all fuel in reactors at 31 December irradiated or otherwise). These volumes are regularly reviewed, in keeping with the data declared for the purposes of the national waste inventory undertaken by the French agency for radioactive waste management ANDRA *(Agence nationale pour la gestion des déchets radioactifs)*.

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 28 June 2006 on the sustainable management of radioactive materials and waste has confirmed the assumption of geological storage used by EDF in calculating these provisions.

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'Énergie et des Matières Premières* – DGEMP, which has since become the French department for Energy and Climate - *Direction Générale de l'Énergie et du Climat* or DGEC) comprising members representing the relevant government departments (DGEMP, the State investment agency APE and the Budget Department), ANDRA and the producers of waste (EDF, AREVA, CEA). The approach applied by EDF to the working group's conclusions is reasonable and coherent with information available internationally.

In 2011 ANDRA and waste producers set up a partnership aiming to facilitate completion of the geological storage project by levering on all the skills of the French nuclear industry. This partnership encompasses joint studies on targeted issues and an interface between the ANDRA project team and nuclear operators to help them make well-informed, relevant contributions to governance of the project. ANDRA has drawn up specifications for early conceptional studies, taking into consideration many of the design options proposed by the waste producers, either as the benchmark or as variations. It should be able to propose an estimate of storage costs by the late 2013 at the earliest, after including the recommendations of the French Nuclear Safety Authority (*Autorité de Sûreté Nucléaire* or ASN), the National Evaluation Commission (*Commission Nationale d'Évaluation* or CNE) and the public debate. After consulting waste producers and the ASN, France's minister for Energy is due to decide on the value of these costs and make a public announcement.

Regarding the provision for long-life low-level waste, the search for a storage site has been suspended following withdrawal of two sites selected by ANDRA. ANDRA is due to submit a report to the French government with various proposals for management of this type of waste, and the conditions for resuming the search for a site. Despite significant delays and the financial risks involved, the calculation method for the provision for storage of long-life low-level waste remains unchanged and should cover most of the alternative scenarios that are currently being examined jointly by EDF and ANDRA.

29.1.3 Decommissioning provisions for nuclear power plants

These provisions concern the decommissioning of pressurised water reactor (PWR) nuclear power plants currently in operation, and nuclear power plants that have been permanently shut down.

They are estimated on the assumption that once decommissioning is complete, the sites will be returned to their original state and the land reused for industry.

- For nuclear power plants currently in operation (PWR plants with 900 MW, 1,300 MW and N4 reactors)

Provisions are estimated based on a 1991 study by the French Ministry of Trade and Industry, which set an estimated benchmark cost in €/MW, confirming the assumptions defined in 1979 by the PEON commission. This estimate was confirmed by a further study carried out by EDF in 1999 focusing on a specific site, and a subsequent valuation in 2009 involving the following steps:

- measurement of the decommissioning cost for a PWR plant with four 900 MW units, taking into consideration the most recent developments in regulations, past experience in decommissioning of shut-down plants and recommendations issued by the ASN;
- a review of the schedule for decommissioning operations over time;
- determination of the rules for extrapolation of costs for the entire fleet of PWR plants in operation.

International intercomparison studies carried out with a non-Group specialist firm support the results of this study.

The study resulted in a figure for decommissioning costs that confirms the amount of the provision booked to date, and validates the benchmark costs used, expressed in €/MW.

- For permanently shut-down nuclear power plants (UNGG power plants, Creys-Malville, Brennilis and Chooz A)

The provision is based on contractor quotes for decommissioning, newly updated in 2012. The costs and schedule have been revised to reflect industrial experience, contingencies and changes in regulations. This update has led to a €610 million increase in the provision for decommissioning of nuclear power plants, which is included in expenses for 2012 under "Other income and expenses".

The new valuation is based on the following key assumptions:

- that decommissioning will take place as soon as possible (this is unchanged from the previous quote);
- that long-life medium-level waste will be stored in a packaging and interim storage installation for radioactive waste (ICEDA) due to open in 2015 (rather than 2013 as previously estimated), until it can be placed in deep underground storage for which the assumptions are unchanged;
- that the facility for storing graphite waste will be available from 2025 (instead of 2019 as previously estimated);
- that the decree for full decommissioning of Brennilis will be obtained by the end of 2018.

29.1.4 Provision for last cores

This provision covers the future expenses resulting from scrapping fuel that will only be partially used when the reactor is shut down. It is measured based on:

- the cost of the loss on fuel in the reactor that is not totally spent at the time of final reactor shutdown and cannot be reused due to technical and regulatory constraints;
- the cost of fuel processing, disposal and waste storage operations. These costs are valued in a similar way to provisions for spent fuel management and long-term radioactive waste management.

These unavoidable costs are components of the cost of nuclear reactor shutdown and decommissioning. As such, they are fully covered by provision from the commissioning date and an asset associated with the provision is recognised.

29.1.5 Discounting of provisions related to nuclear generation and sensitivity analyses

29.1.5.1 Discount rate

Since 31 December 2012, EDF has applied a nominal discount rate of 4.8% to calculate its provisions, together with assumed inflation of 1.9% (previously, the nominal discount rate applied was 5.0% with assumed inflation of 2.0%).

- 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 benchmark used to determine the discount rate is the sliding 10-year average of the return on French treasury bonds over the longest time horizons, plus the spread of corporate bonds rated A to AA, which include EDF.

The assumed inflation rate is determined in line with the forecasts provided by consensus and expected inflation based on the returns on inflation-linked bonds. In response to changes in these criteria, the Group adjusted its assumed inflation to 1.9% at 31 December 2012.

- Revision of the discount rate and regulatory limit

The methodology used to determine the discount rate gives priority to long-term trends in rates, in keeping with the long-term horizon for disbursements. The discount rate is therefore revised in response to structural developments in the economy leading to medium and long-term changes.

The discount rate applied must also comply with the two limits laid down by the decree of 23 February 2007 and the decision of 21 March 2007. This means it must be lower than:

- 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 the expected rate of return on assets covering the liability (dedicated assets).

In order to respect the regulatory limit, the discount rate was reduced to 4.8% at 31 December 2012.

29.1.5.2 Analyses of sensitivity to macro-economic assumptions

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 year-end economic conditions with the present value of the amount.

	31/12/2012		31/12/2011	
(in millions of Euros)	Costs based on year-end economic conditions	Amounts in provisions at present value	Costs based on year-end economic conditions	Amounts in provisions at present value
Spent fuel management	15,250	9,498	14,844	9,143
Long-term radioactive waste management	24,562	7,113	23,801	6,722
BACK-END NUCLEAR CYCLE	**39,812**	**16,611**	**38,645**	**15,865**
Decommissioning provisions for nuclear power plants	22,174	12,578	21,108	11,366
Provisions for last cores	3,887	2,193	3,888	2,012
PROVISION FOR DECOMMISSIONING AND LAST CORES	**26,061**	**14,771**	**24,996**	**13,378**

This approach can be complemented by estimating the impact of a change in the discount rate on the present value.

In application of article 11 of the decree of 23 February 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			
			2012		2011	
(in millions of Euros)	**2012**	2011	+0.20%	-0.20%	+0.25%	-0.25%
Back-end nuclear cycle:						
- spent fuel management	9,498	9,143	(165)	174	(200)	213
- long-term radioactive waste management	7,113	6,722	(361)	403	(412)	471
Decommissioning and last cores:						
- decommissioning of nuclear power plants	12,578	11,366	(458)	479	(544)	576
- last cores	2,193	2,012	(66)	70	(81)	87
TOTAL	**31,382**	**29,243**	**(1,050)**	**1,126**	**(1,237)**	**1,347**

29.2 EDF energy's nuclear provisions

The specific financing terms for long-term nuclear obligations related to EDF Energy are reflected as follows in the EDF group's financial statements:

- the obligations are reported in liabilities in the form of provisions amounting to €8,402 million at 31 December 2012;
- in the assets, EDF reports receivables corresponding to the amounts payable under the restructuring agreements by the NLF, for non-contracted obligations or decommissioning obligations, and by the British Government for contracted obligations (or historical liabilities).

These receivables are discounted at the same real rate as the obligations they are intended to finance. They are included in "Financial assets" in the consolidated balance sheet (see note 36.3) at the amount of €6,920 million at 31 December 2012 (€7,209 million at 31 December 2011).

29.2.1 Regulatory and contractual framework

Amendments signed with the Nuclear Liabilities Fund (NLF - an independent trust set up by the UK Government as part of the restructuring of British Energy) following the EDF group's acquisition of British Energy have a limited impact on the contractual financing commitments made to British Energy by the UK Secretary of State and the NLF under the "Restructuring Agreements". These agreements were entered into by British Energy on 14 January 2005 as part of the restructuring led by the UK Government from 2005 in order to stabilise British Energy's financial position. British Energy Generation Limited changed its name to EDF Energy Nuclear Generation Limited on 1 July 2011 and replaced British Energy in these agreements and amendments.

Under the terms of the Restructuring Agreements:

- the NLF agreed to fund, to the extent of its assets: (i) qualifying contingent and/or latent nuclear liabilities (including liabilities for management of spent fuel from the Sizewell B power station); and (ii) qualifying decommissioning costs for EDF Energy's existing nuclear power stations;
- the Secretary of State agreed to fund: (i) qualifying contingent and/or latent nuclear liabilities (including liabilities for the management of spent fuel from the Sizewell B power station) and qualifying decommissioning costs related to EDF Energy's existing nuclear power stations, to the extent that they exceed the assets of the NLF; and (ii) Subject to a cap of £2,185 million (in December 2002 monetary values, adjusted accordingly), qualifying known existing liabilities for EDF Energy's spent fuel (including liabilities for management of spent fuel from plants other than Sizewell B loaded in reactors prior to 15 January 2005);
- EDF Energy is responsible for funding certain excluded or disqualified liabilities (e.g. those defined as EDF Energy liabilities), and additional liabilities which could be created as a result of failure by EDF Energy to meet minimum performance standards under applicable law. The obligations of EDF Energy to the NLF and the Secretary of State are guaranteed by the assets of the principal members of EDF Energy.

EDF Energy has also undertaken commitments to pay:

- annual decommissioning contributions for a period limited to the useful lives of the plants as at the date of the "Restructuring Agreements"; the corresponding provision amounts to €186 million at 31 December 2012;
- £150,000 (indexed to inflation) per tonne of uranium loaded in the Sizewell B reactor after the date of the "Restructuring Agreements".

Furthermore, EDF Energy has entered into a separate contract with the Nuclear Decommissioning Authority (NDA) for management of AGR spent fuel and associated radioactive waste resulting from operation of power plants other than Sizewell B after 15 January 2005, and bears no responsibility for this fuel and waste once it is transferred to the processing site at Sellafield. The corresponding costs of £150,000 (indexed to inflation) per tonne of loaded uranium - plus a rebate / surcharge dependent on market electricity price and electricity generated in the year - are included in inventories (see note 1.3.17.1).

29.2.2 Provisions for the back-end nuclear cycle

Spent fuel from the Sizewell B PWR (pressurized water reactor) plant is stored on site. Spent fuel from other plants is transferred to Sellafield for storage and reprocessing.

EDF Energy's provisions for the back-end nuclear cycle concern obligations for reprocessing and storage of spent fuel and long-term storage of radioactive waste, required by the existing regulations in the UK approved by the Nuclear Decommissioning Authority (NDA). Their amount is based on contractual agreements or if this is not possible, on the most recent technical estimates.

	31/12/2012		31/12/2011	
(in millions of Euros)	Costs based on year-end economic conditions	Amounts in provisions at present value	Costs based on year-end economic conditions	Amounts in provisions at present value
Spent fuel management	3,820	2,319	3,860	2,385
Long-term radioactive waste management	4,188	594	3,969	577
BACK-END NUCLEAR CYCLE	**8,008**	**2,913**	**7,829**	**2,962**

29.2.3 Decommissioning provisions

Provisions for decommissioning of nuclear plants result from management's best estimates. They cover the full cost of decommissioning and are measured on the basis of existing techniques and methods that are most likely to be used for application of current regulations. The current costs are based on Baseline Decommissioning Plans produced in 2008 and assume that plants will be decommissioned and the land will ultimately be reused.

	31/12/2012		31/12/2011	
(in millions of Euros)	Costs based on year-end economic conditions	Amounts in provisions at present value	Costs based on year-end economic conditions	Amounts in provisions at present value
PLANT DECOMMISSIONING	**12,887**	**3,994**	**12,213**	**4,239**

The table above only concerns decommissioning obligations excluding the present value of decommissioning contributions payable to the NLF (€186 million, see note 29.2.1).

29.3 CENG'S nuclear provisions

In the U.S., the obligations concerning spent fuel management, waste disposal and plant decommissioning are governed primarily by the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE). Additionally, certain waste transport obligations are governed by the U.S. Department of Transportation.

29.3.1 Provisions for back-end nuclear cycle

In accordance with current regulations, spent fuel is not reprocessed but instead is placed in temporary storage until the DOE takes charge of its final transportation and permanent storage in a national repository. For this service, CENG pays a quarterly fee to the DOE of approximately $1/MWh of electricity generated.

29.3.2 Decommissioning provisions

CENG is obligated to decommission its three nuclear power plants (five nuclear generation units) when they cease operations, in accordance with NRC regulations and relevant state regulations for site restoration (greenfielding requirements). In the U.S., all decommissioning activities are required by the NRC to be completed within 60 years following cessation of plant operations.

Decommissioning provisions mainly comprise decontamination, dismantlement, disposal and site restoration activities. These activities encompass costs such as internal and external personnel expenses, materials and equipment, energy, insurance, property taxes, temporary on-site storage of spent nuclear fuel, transportation, and waste disposal.

Estimated decommissioning costs are calculated individually for each site based on technical studies that are regularly updated.

29.3.3 Funding of nuclear obligations

NRC-approved funding options provide for the establishment of external investment trust funds reserved for each unit, to cover its decommissioning obligations. These trust funds are currently invested in debt and equity instruments. They are treated as available-for-sale assets, and carried at fair value.

CENG's Investment Committee determines the general investment strategy, including the allocation of investments among asset types. CENG periodically undertakes a comprehensive asset-liability management study to adjust and optimise the asset allocation, given strategic objectives, liability duration, long-term capital market conditions, and the magnitude of such projected obligations. None of the funds are permitted to be invested directly in companies that own nuclear power plants.

The NRC sets minimum funding assurance guidelines to provide for radiological decommissioning activities and requires all plant owners to submit a report biennially in odd-numbered years that demonstrates adequate funding assurance for each unit. If a shortfall is observed, the NRC may require additional financial assurance measures in the form of cash, letters of credit or parent company guarantees. In March 2012, in connection with the merger between Exelon and Constellation Energy, CENG submitted an off-cycle assurance financial report. That report did not indicate any shortfall, and no additional funding assurance was required by the NRC. The next biennal report is required to be submitted by March 2013.

29.4 Other subsidiaries' nuclear provisions

Other subsidiaries' provisions for the back-end of the nuclear cycle and decommissioning mostly concern nuclear plants in Belgium.

Note 30 Provisions for decommissioning of non-nuclear facilities

The breakdown by company is as follows:

(in millions of Euros)	EDF	EDF Energy	Edison	Other entities	Total
PROVISIONS FOR DECOMMISSIONING OF NON-NUCLEAR FACILITIES AT 31/12/2012	**522**	**71**	**416**	**126**	**1,135**
Provisions for decommissioning of non-nuclear facilities at 31/12/2011	477	50	189	134	850

Provisions for decommissioning of non-nuclear facilities principally concern fossil-fired power plants.

The costs of decommissioning fossil-fired power plants are calculated using 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.

The provision recorded at 31 December 2012 reflects the most recent known contractor quotes and commissioning of new generation assets.

Note 31 Provisions for employee benefits

31.1 EDF GROUP

(in millions of Euros)	**31/12/2012**	31/12/2011
Provisions for employee benefits – current portion	912	940
Provisions for employee benefits – non-current portion	19,540	14,611
PROVISIONS FOR EMPLOYEE BENEFITS	**20,452**	**15,551**

31.1.1 Breakdown of the change in the provisions

(in millions of Euros)	Obligations	Fund assets	Obligations net of fund assets	Unrecognised past service cost	Provision in the balance sheet
Balances at 31/12/2011	**28,267**	**(12,594)**	**15,673**	**(122)**	**15,551**
Net expense for 2012	2,353	(635)	1,718	13	1,731
Change in actuarial gains and losses	5,476	(866)	4,610	-	4,610
Employer's contributions to funds	-	(706)	(706)	-	(706)
Employees' contributions to funds	24	(24)	-	-	-
Benefits paid	(1,353)	555	(798)	-	(798)
Unvested past service cost	74	-	74	(74)	-
Translation adjustment	142	(111)	31	-	31
Changes in scope of consolidation	36	-	36	-	36
Other movements	23	(27)	(4)	1	(3)
BALANCES AT 31/12/2012	**35,042**	**(14,408)**	**20,634**	**(182)**	**20,452**

31.1.2 Post-employment and long-term employee benefit expenses

(in millions of Euros)	**31/12/2012**	31/12/2011
Current service cost	(743)	(686)
Interest expense (discount effect)	(1,392)	(1,337)
Expected return on fund assets	635	597
Past service cost	36	(25)
Change in actuarial gains and losses – long-term benefits	(271)	(100)
Effect of plan curtailment or settlement	4	(2)
POST-EMPLOYMENT AND OTHER LONG-TERM EMPLOYEE BENEFIT EXPENSES	**(1,731)**	**(1,553)**
including:		
Operating expense	(974)	(813)
Financial expense	(757)	(740)

31.1.3 Provisions for employee benefits by operating segment

(in millions of Euros)	France	United Kingdom	Italy	Other international	Other activities	Total
Obligations at 31/12/2011	21,454	6,027	37	462	287	28,267
Net expense for 2012	1,789	500	5	44	15	2,353
Change in actuarial gains and losses	5,685	(333)	-	42	82	5,476
Employees' contributions to funds	-	23	-	-	1	24
Benefits paid	(1,123)	(196)	(2)	(25)	(7)	(1,353)
Unvested past service cost	74	-	-	-	-	74
Translation adjustment	-	142	-	(2)	2	142
Changes in scope of consolidation	-	-	19	6	11	36
Other movements	-	3	(9)	2	27	23
OBLIGATIONS AT 31/12/2012	**27,879**	**6,166**	**50**	**529**	**418**	**35,042**
Fair value of fund assets	(8,280)	(5,755)	-	(207)	(166)	(14,408)
Unrecognised past service cost	(178)	-	-	(3)	(1)	(182)
PROVISIONS FOR EMPLOYEE BENEFITS AT 31/12/2012	**19,421**	**411**	**50**	**319**	**251**	**20,452**

(in millions of Euros)	France	United Kingdom	Italy	Other international	Other activities	Total
Obligations at 31/12/2011	21,454	6,027	37	462	287	28,267
Fair value of fund assets	(7,306)	(4,978)	-	(181)	(129)	(12,594)
Unrecognised past service cost	(117)	-	-	(3)	(2)	(122)
PROVISIONS FOR EMPLOYEE BENEFITS AT 31/12/2011	**14,031**	**1,049**	**37**	**278**	**156**	**15,551**

31.2 France

The "France" segment mainly comprises EDF SA and ERDF. Almost all of the employees of these companies benefit from IEG status including the special pension system and other IEG benefits, described in note 1.3.22.

31.2.1 Details of changes in the provision

(in millions of Euros)	Obligations	Fund assets	Obligations net of fund assets	Unrecognised past service cost	Provision in the balance sheet
Balances at 31/12/2011	**21,454**	**(7,306)**	**14,148**	**(117)**	**14,031**
Net expense for 2012	1,789	(353)	1,436	13	1,449
Change in actuarial gains and losses	5,685	(617)	5,068	-	5,068
Employer's contributions to funds	-	(345)	(345)	-	(345)
Employees' contributions to funds	-	-	-	-	-
Benefits paid	(1,123)	341	(782)	-	(782)
Unvested past service cost	74	-	74	(74)	-
Other movements	-	-	-	-	-
BALANCES AT 31/12/2012	**27,879**	**(8,280)**	**19,599**	**(178)**	**19,421**

The change in actuarial gains and losses mainly relates to the lower discount rate for long-term obligations to employees, which was reduced to 3.5% at 31 December 2012 (5.0% at 31 December 2011).

31.2.2 Post-employment and long-term employee benefit expenses

(in millions of Euros)	**31/12/2012**	31/12/2011
Current service cost	(507)	(501)
Interest expense (discount effect)	(1,070)	(1,030)
Expected return on fund assets	353	330
Past service cost	40	(13)
Change in actuarial gains and losses – long-term benefits	(266)	(98)
Effect of plan curtailment or settlement	1	-
POST-EMPLOYMENT AND OTHER LONG-TERM EMPLOYEE BENEFIT EXPENSES	**(1,449)**	**(1,312)**
including:		
Operating expense	(732)	(612)
Financial expense	(717)	(700)

31.2.3 Provisions for employee benefits by nature

At 31 December 2012:

(in millions of Euros)	Obligations	Fund assets	Unrecognised past service cost	Provision in the balance sheet
Provisions for post-employment benefits at 31/12/2012	**26,591**	**(8,280)**	**(178)**	**18,133**
Comprising:				
Pensions	20,859	(7,668)	-	13,191
Benefits in kind (electricity/gas)	3,923	-	-	3,923
Retirement gratuities	861	(598)	(102)	161
Other	948	(14)	(76)	858
Provisions for long-term employee benefits at 31/12/2012	**1,288**	-	-	**1,288**
Comprising:				
Annuities following work-related accident and illness, and invalidity	1,096	-	-	1,096
Long service awards	155	-	-	155
Other	37	-	-	37
PROVISIONS FOR EMPLOYEE BENEFITS AT 31/12/2012	**27,879**	**(8,280)**	**(178)**	**19,421**

At 31 December 2011:

(in millions of Euros)	Obligations	Fund assets	Unrecognised past service cost	Provision in the balance sheet
Provisions for post-employment benefits at 31/12/2011	**20,362**	**(7,306)**	**(117)**	**12,939**
Comprising:				
Pensions	16,138	(6,762)	-	9,376
Benefits in kind (electricity/gas)	2,912	-	-	2,912
Retirement gratuities	744	(531)	(114)	99
Other	568	(13)	(3)	552
Provisions for long-term employee benefits at 31/12/2011	**1,092**	-	-	**1,092**
Comprising:				
Annuities following work-related accident and illness, and invalidity	917	-	-	917
Long service awards	141	-	-	141
Other	34	-	-	34
PROVISIONS FOR EMPLOYEE BENEFITS AT 31/12/2011	**21,454**	**(7,306)**	**(117)**	**14,031**

31.2.4 Fund assets

For France, these assets amount to €8,280 million at 31 December 2012 (€7,306 million at 31 December 2011) and concern retirement gratuities (with target coverage of 100%) and the specific benefits of the special pension system. They consist of insurance contracts.

Investments under these contracts break down as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
FUND ASSETS	**8,280**	**7,306**
Assets funding special pension benefits	*7,668*	*6,762*
(%)		
Equities	29%	26%
Bonds and monetary instruments	71%	74%
Assets funding retirement gratuities	*598*	*531*
(%)		
Equities	31%	39%
Bonds and monetary instruments	69%	61%
Other fund assets	*14*	*13*

31.2.5 Actuarial assumptions

(in %)	**31/12/2012**	31/12/2011
Discount rate	3.50%	5.00%
Expected return on fund assets	3.80%	4.70%
Wage increase rate	2.00%	2.00%

In France, the discount rate for long-term obligations to employees is determined based on the return on a government bond of comparable duration – the 2035 French Treasury bond, which has a duration of 14 years consistent with the duration of employee benefit obligations – plus a spread calculated on the leading non financial companies, also over a comparable duration.

In view of changes in the economic and market parameters used, the Group revised the discount rate to 3.50% for 2012.

31.2.6 Sensitivity analysis

(in %)	**31/12/2012**	31/12/2011
Impact of a 25bp increase or decrease in the discount rate:		
■ On the amount of the obligation	-4.0%/ +4.3%	-3.4%/ +3.6%
■ On the service cost for Y+1	-6.4%/ +7.1%	-5.3%/ +5.7%

31.3 United kingdom

EDF Energy sponsors three defined benefit 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 British Energy Generation Group ("BEGG") of the Electricity Supply Pension Scheme ("ESPS"), of which the majority of members are employees in Nuclear Generation. BEGG was closed to new members in August 2012; and
- the EDF Energy Generation and Supply Group ("EEGS") of the ESPS which was established in December 2010 for the employees remaining with EDF Energy following the transfer of the former Group to UK Power Networks as part of the sale of Networks. EEGS is closed to new members.

Each pension scheme is financially independent from the others. With the exception of EEPS all of the above schemes are part of the industry wide ESPS.

31.3.1 Details of the change in the provision

(in millions of Euros)	Obligations	Fund assets	Obligations net of fund assets	Unrecognised past service cost	Provision in the balance sheet
Balances at 31/12/2011	6,027	(4,978)	1,049	-	1,049
Net expense for 2012	500	(261)	239	-	239
Change in actuarial gains and losses	(333)	(238)	(571)	-	(571)
Employer's contributions to funds	-	(337)	(337)	-	(337)
Employees' contributions to funds	23	(23)	-	-	-
Benefits paid	(196)	196	-	-	-
Unvested past service cost	-	-	-	-	-
Translation adjustment	142	(114)	28	-	28
Changes in scope of consolidation	-	-	-	-	-
Other movements	3	-	3	-	3
BALANCES AT 31/12/2012	**6,166**	**(5,755)**	**411**	**-**	**411**

31.3.2 Post-employment and long-term employee benefit expenses

(in millions of Euros)	**31/12/2012**	31/12/2011
Current service cost	(209)	(160)
Interest expense (discount effect)	(289)	(281)
Expected return on fund assets	261	255
Effect of plan curtailment or settlement	(2)	(3)
POST-EMPLOYMENT AND OTHER LONG-TERM EMPLOYEE BENEFIT EXPENSES	**(239)**	**(189)**
including:		
Operating expense	(211)	(163)
Financial expense	(28)	(26)

31.3.3 Fund assets

Pension obligations in the United Kingdom are partly covered by external funds with a present value of €5,755 million at 31 December 2012 (€4,978 million at 31 December 2011). These funds break down as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
FUND ASSETS	**5,755**	**4,978**
Comprising (%):		
Real estate assets	7%	6%
Equities	33%	34%
Bonds and monetary instruments	49%	52%
Other	11%	8%

31.3.4 Actuarial assumptions

(in %)	**31/12/2012**	31/12/2011
Discount rate	4.50%	4.70%
Expected return on fund assets	4.70%	5.10%
Wage increase rate	3.10%	4.70%

31.3.5 Sensitivity analyses

(in %)	**31/12/2012**	31/12/2011
Impact of a 25bp increase or decrease in the discount rate:		
■ On the amount of the obligations	-4.7%/+4.9%	-4.8%/+5.0%
■ On the past service cost for Y+1	-6.0%/+6.6%	-7.3%/+7.3%

↗ Note 32 Other provisions

Details of changes in other provisions are as follows:

	31/12/2011	Increases	Decreases		Changes in scope	Other changes	**31/12/2012**
(in millions of Euros)			Utilisations	Reversals			
Provisions for contingencies related to investments	194	70	(54)	(18)	-	-	192
Provisions for tax liabilities	266	38	(3)	(38)	148	3	414
Provisions for litigation (1)	563	98	(42)	(75)	71	(11)	604
Provisions for onerous contracts	808	104	(204)	-	-	(5)	703
Provisions related to environmental schemes (2)	466	703	(612)	-	16	8	581
Other provisions	647	545	(288)	(74)	170	(3)	997
TOTAL	**2,944**	**1,558**	**(1,203)**	**(205)**	**405**	**(8)**	**3,491**

(1) Provisions for litigation include a provision relating to a dispute with social security bodies.
(2) Provisions related to environmental schemes include provisions for greenhouse gas emission rights and renewable energy certificates (see note 50).

Provisions for onerous contracts include the fair value of:

- British Energy sales contracts, amounting to €27 million at 31 December 2012 (€130 million at 31 December 2011);
- CENG long-term sales contracts (2011-2012), amounting to €461 million at 31 December 2012 (€491 million at 31 December 2011). Reversals from provisions relating to these contracts result from the difference over the year between contractualised income and income valued on the basis of market prices at the acquisition date.

Note 33 Special French public electricity distribution concession liabilities

The changes in special concession liabilities for existing assets and assets to be replaced are as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
Value in kind of assets	41,702	40,307
Unamortised financing by the operator	(20,182)	(19,383)
Rights in existing assets – net value	**21,520**	**20,924**
Amortisation of financing by the grantor	10,453	9,923
Provisions for renewal	10,578	10,922
Rights in assets to be replaced	**21,031**	**20,845**
SPECIAL FRENCH PUBLIC ELECTRICITY DISTRIBUTION CONCESSION LIABILITIES	**42,551**	**41,769**

Note 34 Trade payables

(in millions of Euros)	**31/12/2012**	31/12/2011
Trade payables – excluding EDF Trading	11,027	9,358
Trade payables – EDF Trading	3,616	4,323
TRADE PAYABLES	**14,643**	**13,681**

Note 35 Other liabilities

Details of other liabilities are as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
Advances and progress payments received	6,491	6,696
Liabilities related to property, plant and equipment	2,699	2,404
Tax liabilities	4,922	4,213
Social charges	3,166	2,889
Deferred income related to long-term contracts	4,004	4,825
Other deferred income	996	1,110
Other	2,977	2,752
OTHER LIABILITIES	**25,255**	**24,889**
Non-current portion	4,218	4,989
Current portion	21,037	19,900

35.1 Advances and progress payments received

At 31 December 2012 advances and progress payments received include monthly standing order payments by EDF's residential and business customers amounting to €5,558 million (€5,145 million at 31 December 2011). The increase over 2012 is mainly explained by the growing number of customers that opt to pay their bills this way.

35.2 Tax liabilities

At 31 December 2012 tax liabilities mainly include an amount of €747 million for the CSPE income to be collected by EDF on energy supplied but not yet billed (€579 million at 31 December 2011).

35.3 Deferred income related to long-term contracts

EDF's deferred income related to long-term contracts at 31 December 2012 comprises €2,183 million (€2,818 million at 31 December 2011) of partner advances made under the nuclear plant financing plans.

The change over the year includes the reimbursement by the EDF group in December 2012 of the advance paid by ENEL (€613 million) following termination of the two Groups' industrial partnership for the Flamanville EPR (see note 3.3.2). This advance was recorded at the value of €513 million at 31 December 2011.

Deferred income on long-term contracts also include an advance paid to EDF in 2010 under the agreement with the Exeltium consortium.

FINANCIAL ASSETS AND LIABILITIES

Note 36 Current and non-current financial assets

36.1 Breakdown between current and non-current financial assets

Current and non-current financial assets break down as follows:

(in millions of Euros)	31/12/2012 Current	31/12/2012 Non-current	31/12/2012 Total	31/12/2011 Current	31/12/2011 Non-current	31/12/2011 Total
Financial assets carried at fair value with changes in fair value included in income	3,167	12	**3,179**	4,482	12	**4,494**
Available-for-sale financial assets	11,208	16,045	**27,253**	10,413	13,915	**24,328**
Held-to-maturity investments	9	14	**23**	3	16	**19**
Positive fair value of hedging derivatives	825	1,596	**2,421**	914	1,862	**2,776**
Loans and financial receivables	1,224	12,804	**14,028**	1,168	8,455	**9,623**
CURRENT AND NON-CURRENT FINANCIAL ASSETS [1]	**16,433**	**30,471**	**46,904**	**16,980**	**24,260**	**41,240**

(1) Including impairment of €(1,111) million at 31 December 2012 (€(1,141 million) at 31 December 2011).

36.2 Details of financial assets

36.2.1 Financial assets carried at fair value with changes in fair value included in income

(in millions of Euros)	31/12/2012	31/12/2011
Derivatives - positive fair value	3,162	4,478
Fair value of derivatives held for trading	5	4
Financial assets carried at fair value under IAS 39 option	12	12
FINANCIAL ASSETS CARRIED AT FAIR VALUE WITH CHANGES IN FAIR VALUE INCLUDED IN INCOME	**3,179**	**4,494**

Financial assets carried at fair value with changes in fair value included in income mainly concern EDF Trading.

36.2.2 Available-for-sale financial assets

(in millions of Euros)	31/12/2012 Equities [1]	31/12/2012 Debt securities	31/12/2012 Total	31/12/2011 Equities [1]	31/12/2011 Debt securities	31/12/2011 Total
EDF dedicated assets	7,328	7,890	**15,218**	5,801	7,510	**13,311**
Liquid assets	3,715	6,574	**10,289**	2,782	6,242	**9,024**
Other securities	1,676	70	**1,746**	1,918	75	**1,993**
AVAILABLE-FOR-SALE FINANCIAL ASSETS	**12,719**	**14,534**	**27,253**	**10,501**	**13,827**	**24,328**

(1) Equities or investment funds.

Changes in the fair value of available-for-sale financial assets were recorded in equity (EDF share) over the period as follows:

(in millions of Euros)	2012 Gross changes in fair value recorded in equity [(1)]	2012 Gross changes in fair value transferred to income [(2)]	2011 Gross changes in fair value recorded in equity [(1)]	2011 Gross changes in fair value transferred to income [(2)]
EDF dedicated assets	1,237	236	(448)	(77)
Liquid assets	48	28	27	35
Other securities	(76)	8	(319)	(38)
AVAILABLE-FOR-SALE FINANCIAL ASSETS	**1,209**	**272**	**(740)**	**(80)**

(1) + / ( ) : increase / (decrease) in equity (EDF's share).
(2) + / ( ) : increase / (decrease) in income (EDF's share).

Gross changes in fair value included in equity in 2012 (EDF's share) principally concern EDF (€1,247 million, including €1,237 million for dedicated assets).

No significant impairment was recorded in 2012.

Gross changes in fair value over 2011 mainly concern EDF (€(843) million), including:

- €(448) million for dedicated assets;
- €(272) million for Veolia Environnement shares and €(149) million for AREVA shares included in "Other securities".

In 2011 the fair value of the Veolia Environnement shares, based on the year-end stock market price, fell to below 50% of their historical value, and impairment of €(340) million was recorded in the financial result.

36.2.2.1 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, and are managed according to a liquidity-oriented policy.

EDF's monetary investment funds, included in liquid assets, amount to €3,249 million at 31 December 2012 (€2,187 million at 31 December 2011).

36.2.2.2 Other securities

At 31 December 2012, other securities mainly include:

- At CENG, €607 million of available-for-sale financial assets related to decommissioning trust funds (reserved for financing of nuclear plant decommissioning);
- At EDF, shares in Areva (€110 million) and Veolia Environnement (€202 million).

In 2012, the Group sold all its shares in Exelon for the sum of €361 million. A gain on sale of €32 million was booked in the financial result for 2012, resulting partly from conversion of CEG shares to Exelon shares as part of finalisation of the merger between the two companies on 12 March 2012, and partly from the sale of Exelon shares during the year.

36.3 Fair value of financial assets recorded at amortised cost

(in millions of Euros)	31/12/2012 Fair value	31/12/2012 Net book value	31/12/2011 Fair value	31/12/2011 Net book value
Held-to-maturity investments	23	23	19	19
Loans and financial receivables – amounts receivable from the NLF	6,920	6,920	7,209	7,209
Loans and financial receivables – CSPE	4,879	4,879	-	-
Loans and financial receivables – other	2,368	2,229	2,567	2,414
FINANCIAL ASSETS RECORDED AT AMORTISED COST	**14,190**	**14,051**	**9,795**	**9,642**

Loans and financial receivables include amounts representing reimbursements receivable from the NLF and the British government for coverage of long-term nuclear obligations, totalling €6,920 million at 31 December 2012 (€7,209 million at 31 December 2011), discounted at the same rate as the provisions they finance.

Following the agreement reached with the French authorities, the receivable corresponding to the CSPE shortfall at 31 December 2012 has been transferred from "other receivables" to "loans and financial receivables" (€4,250 million, see note 4.1). The €629 million financial income corresponding to the costs borne by the Group for the CSPE system is also recorded under the same heading.

Other loans and financial receivables include EDF's loans to RTE, amounting to €1,174 million at 31 December 2012 (€1,400 million at 31 December 2011).

36.4 Change in financial assets other than derivatives

The variation in financial assets is as follows:

36.4.1 At 31 December 2012

(in millions of Euros)	**31/12/2011**	Net Increases	Changes in fair value	Changes in scope	Other	**31/12/2012**
Available-for-sale financial assets	**24,328**	1,887	937	114	(13)	**27,253**
Held-to-maturity investments	**19**	10	-	(6)	-	**23**
Loans and financial receivables	**9,623**	330	-	60	4,015	**14,028**

Other changes in loans and financial receivables reflect the transfer of the receivable corresponding to the CSPE shortfall (€4,250 million), and the change in the receivable representing reimbursements due from the NLF and the British government for coverage of long-term nuclear obligations, totalling €(289) million.

36.4.2 At 31 December 2011

(in millions of Euros)	**31/12/2010**	Net Increases	Changes in fair value	Changes in scope	Other	**31/12/2011**
Available-for-sale financial assets	**25,035**	(320)	(517)	75	55	**24,328**
Held-to-maturity investments	**25**	(3)	-	-	(3)	**19**
Loans and financial receivables	**9,348**	(380)	-	49	606	**9,623**

Other changes in loans and financial receivables reflect the change in the receivable representing reimbursements due from the NLF and the British government for coverage of long-term nuclear obligations, totalling €596 million.

↗ Note 37 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)	**31/12/2012**	31/12/2011
Cash	3,090	2,018
Cash equivalents (1)	2,584	3,502
Financial current accounts	200	223
CASH AND CASH EQUIVALENTS	**5,874**	**5,743**

(1) Items stated at fair value amount to €2,507 million at 31 December 2012.

Note 38 Current and non-current financial liabilities

38.1 Breakdown between current and non-current financial liabilities

Current and non-current financial liabilities break down as follows:

(in millions of Euros)	**31/12/2012** Non-current	Current	**Total**	31/12/2011 Non-current	Current	**Total**
Loans and other financial liabilities	45,891	14,041	**59,932**	41,989	8,045	**50,034**
Negative fair value of derivatives held for trading	-	2,290	**2,290**	-	3,433	**3,433**
Negative fair value of hedging derivatives	1,089	1,190	**2,279**	699	1,311	**2,010**
FINANCIAL LIABILITIES	**46,980**	**17,521**	**64,501**	**42,688**	**12,789**	**55,477**

38.2 Loans and other financial liabilities

38.2.1 Changes in loans and other financial liabilities

(in millions of Euros)	Bonds	Loans from financial institutions	Other financial liabilities	Loans related to finance-leased assets	Accrued Interest	**Total**
Balances at 31/12/2010	**35,499**	**5,404**	**5,486**	**373**	**1,015**	**47,777**
Increases	1,810	3,275	663	-	81	5,829
Decreases	(1,023)	(3,228)	(302)	(16)	(7)	(4,576)
Translation adjustments	366	34	145	-	1	546
Changes in scope of consolidation	(11)	(29)	(334)	(4)	-	(378)
Other changes	883	25	(91)	18	1	836
Balances at 31/12/2011	**37,524**	**5,481**	**5,567**	**371**	**1,091**	**50,034**
Increases	6,000	1,984	4,400	-	256	12,640
Decreases	(802)	(3,944)	(382)	(17)	(18)	(5,163)
Translation adjustments	126	(5)	(19)	-	-	102
Changes in scope of consolidation	894	1,444	(25)	43	(5)	2 351
Other changes	127	(52)	(153)	30	16	(32)
BALANCES AT 31/12/2012	**43,869**	**4,908**	**9,388**	**427**	**1,340**	**59,932**

Other changes in loans and other financial liabilities reflect changes in fair value amounting to €86 million at 31 December 2012 (€826 million at 31 December 2011).

EDF received funds from the following bond issues:

- €2 billion from a 10-year bond with annual coupon of 3.875%, on 18 January 2012;
- €1 billion from a 15-year bond with annual coupon of 4.125%, and £500 million from a 25-year bond with annual coupon of 5.5%, on 27 March 2012;
- €2 billion from a 10.5-year bond with annual coupon of 2.75%, on 10 September 2012.

Loans and other financial liabilities of the Group's main entities are as follows:

(in millions of Euros)	**31/12/2012**	31/12/2011
EDF and other affiliated subsidiaries [1]	42,384	35,407
EDF Energy [2]	6,786	5,965
EDF Énergies Nouvelles	3,700	4,572
Edison [3]	3,474	1,861
Other	3,588	2,229
LOANS AND OTHER FINANCIAL LIABILITIES	**59,932**	**50,034**

(1) ERDF, PEI, EDF International, EDF Investissements Groupe.
(2) Including holding companies.
(3) Edison excluding TdE.

At 31 December 2012, none of these entities was in default on any borrowing.

The Group's principal borrowings at 31 December 2012 are as follows:

Type of borrowing *(in millions of currencies)*	Entity	Issue [1]	Maturity	Issue amount	Currency	Rate
Euro MTN	EDF	11/2008	01/2013	2,000	EUR	5.60%
Bond	EDF	12/2008	12/2013	1,350	CHF	3.38%
Bond	EDF	01/2009	01/2014	1,250	USD	5.50%
Euro MTN	EDF	07/2009	07/2014	3,269	EUR	4.50%
Euro MTN	EDF	01/2009	01/2015	2,000	EUR	5.10%
Euro MTN	EDF	10/2001	10/2016	1,100	EUR	5.50%
Euro MTN	EDF	02/2008	02/2018	1,500	EUR	5.00%
Bond	EDF	01/2009	01/2019	2,000	USD	6.50%
Bond	EDF	01/2010	01/2020	1,400	USD	4.60%
Euro MTN	EDF	05/2008	05/2020	1,200	EUR	5.40%
Euro MTN	EDF	01/2009	01/2021	2,000	EUR	6.30%
Euro MTN	EDF	01/2012	01/2022	2,000	EUR	3.88%
Euro MTN	EDF	09/2012	03/2023	2,000	EUR	2.75%
Euro MTN	EDF	09/2009	09/2024	2,500	EUR	4.60%
Euro MTN	EDF	11/2010	11/2025	750	EUR	4.00%
Euro MTN	EDF	03/2012	03/2027	1,000	EUR	4.13%
Euro MTN	EDF	04/2010	04/2030	1,500	EUR	4.60%
Euro MTN	EDF	07/2001	07/2031	650	GBP	5.88%
Euro MTN	EDF	02/2003	02/2033	850	EUR	5.60%
Euro MTN	EDF	06/2009	06/2034	1,500	GBP	6.10%
Bond	EDF	01/2009	01/2039	1,750	USD	7.00%
Euro MTN	EDF	11/2010	11/2040	750	EUR	4.50%
Euro MTN	EDF	10/2011	10/2041	1,250	GBP	5.50%
Euro MTN	EDF	09/2010	09/2050	1,000	GBP	5.10%

(1) Date funds were received.

38.2.2 Maturity of loans and other financial liabilities

At 31 December 2012:

(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	3,848	1,940	6,998	37	1,218	**14,041**
From one to five years	10,590	791	1,627	126	61	**13,195**
More than five years	29,431	2,177	763	264	61	**32,696**
LOANS AND OTHER FINANCIAL LIABILITIES AT 31 DECEMBER 2012	**43,869**	**4,908**	**9,388**	**427**	**1,340**	**59,932**

At 31 December 2011:

(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	790	1,207	4,920	37	1,091	**8,045**
From one to five years	12,760	1,964	520	101	-	**15,345**
More than five years	23,974	2,310	127	233	-	**26,644**
LOANS AND OTHER FINANCIAL LIABILITIES AT 31 DECEMBER 2011	**37,524**	**5,481**	**5,567**	**371**	**1,091**	**50,034**

38.2.3 Breakdown of loans and other financial liabilities by currency

	31/12/2012			31/12/2011		
(in millions of Euros)	Initial debt structure	Impact of hedging instruments (1)	Debt structure after hedging	Initial debt structure	Impact of hedging instruments (1)	Debt structure after hedging
Euro (EUR)	35,709	1,485	37,194	29,479	(3,129)	26,350
American dollar (USD)	11,621	(6,240)	5,381	8,890	(2,401)	6,489
Pound sterling (GBP)	7,927	5,773	13,700	6,822	7,559	14,381
Other	4,675	(1,018)	3,657	4,843	(2,029)	2,814
LOANS AND OTHER FINANCIAL LIABILITIES	**59,932**	**-**	**59,932**	**50,034**	**-**	**50,034**

(1) Hedges of liabilities and net assets of foreign subsidiaries.

38.2.4 Breakdown of loans by type of interest rate, before and after swaps

	31/12/2012			31/12/2011		
(in millions of Euros)	Initial debt structure	Impact of derivatives	Final debt structure	Initial debt structure	Impact of derivatives	Final debt structure
Fixed rates	52,306	(4,844)	47,462	42,614	(2,630)	39,984
Floating rates	7,626	4,844	12,470	7,420	2,630	10,050
LOANS AND OTHER FINANCIAL LIABILITIES	**59,932**	**-**	**59,932**	**50,034**	**-**	**50,034**

The breakdown of loans and financial liabilities by interest rate includes the impact of all derivatives classified as hedges in accordance with IAS 39.

38.2.5 CREDIT LINES

At 31 December 2012, the Group has unused credit lines with various banks totalling €8,598 million (€10,179 million at 31 December 2011).

	31/12/2012				31/12/2011
	Total	Maturity			Total
(in millions of Euros)		< 1 year	1 to 5 years	> 5 years	
CONFIRMED CREDIT LINES	**8,598**	**637**	**7,961**	**-**	**10,179**

The decrease in credit lines observed in 2012 mainly relates to EDF's credit lines with maturities shorter than one year.

38.2.6 Early repayment clauses

Project financing loans to EDF Énergies Nouvelles from non-Group parties generally include early repayment clauses, mainly applicable when the borrower fails to maintain a minimum Debt Service Coverage Ratio (DSCR). In general, early repayment clauses are activated when this ratio falls below 1.

No early repayment took place in 2012 as a result of any Group entity's failure to comply with contractual clauses concerning loans.

38.2.7 Fair value of loans and other financial liabilities

	31/12/2012		31/12/2011	
(in millions of Euros)	Fair value	Net book value	Fair value	Net book value
LOANS AND OTHER FINANCIAL LIABILITIES	**71,671**	**59,932**	**53,196**	**50,034**

38.3 Net indebtedness

Net indebtedness is not defined in the accounting standards and is not directly presented in the consolidated balance sheet. It 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.

Net indebtedness includes loans by the Group to RTE, which has been accounted for under the equity method since 31 December 2010, and loans to joint ventures for which contra entries are recognised in loans and other financial liabilities.

38.3.1 Net indebtedness

(in millions of Euros)	Notes	**31/12/2012**	31/12/2011
Loans and other financial liabilities	38.2.1	59,932	50,034
Derivatives used to hedge liabilities		(797)	(834)
Cash and cash equivalents	37	(5,874)	(5,743)
Liquid assets (1)	36.2	(10,289)	(9,024)
Loan to RTE and joint ventures (2)		(1,397)	(1,400)
Net indebtedness of assets held for sale		-	252
NET INDEBTEDNESS		**41,575**	**33,285**

(1) Available-for-sale financial assets: €10,289 million at 31 December 2012 (€9,024 million at 31 December 2011).
(2) Including €1,174 million of loans to RTE at 31 December 2012.

The investments in Edison and TdE in 2012, resulting in full consolidation of those companies in the EDF group's consolidated financial statements, led to a €3,259 million increase in net financial indebtedness at 31 December 2012 (see note 3.1.6).

↗ Note 39 Fair value of financial instruments

The following tables show the breakdown of financial assets and liabilities carried at fair value in the balance sheet, by level.

39.1 At 31 December 2012

(in millions of Euros)	**Closing value**	Level 1 Quoted prices	Level 2 Observable Data	Level 3 Internal Models
Financial assets carried at fair value with changes in fair value included in income [1]	**3,179**	16	2,942	221
Available-for-sale financial assets	**27,253**	4,363	22,275	615
Positive fair value of hedging derivatives	**2,421**	-	2,421	-
Cash equivalents carried at fair value	**2,507**	-	2,507	-
Financial assets carried at fair value in the balance sheet	**35,360**	**4,379**	**30,145**	**836**
Negative fair value of hedging derivatives	**2,279**	9	2,269	1
Negative fair value of trading derivatives	**2,290**	11	2,093	186
Financial liabilities carried at fair value in the balance sheet	**4,569**	**20**	**4,362**	**187**

(1) Including €3,162 million for the positive fair value of trading derivatives.

Level 3 available-for-sale financial assets are principally unconsolidated investments carried at historical value.

Cash equivalents, which principally take the form of negotiable debt instruments and short-term investments, are generally valued using rate curves, and therefore observable market data.

39.2 At 31 December 2011

(in millions of Euros)	Closing value	Level 1 Quoted prices	Level 2 Observable data	Level 3 Internal Models
Financial assets carried at fair value with changes in fair value included in income [1]	4,494	24	4,180	290
Available-for-sale financial assets	24,328	5,171	18,628	529
Positive fair value of hedging derivatives	2,776	-	2,776	-
Cash equivalents carried at fair value	3,246	40	3,206	-
Financial assets carried at fair value in the balance sheet	**34,844**	**5,235**	**28,790**	**819**
Negative fair value of hedging derivatives	2,010	-	2,009	1
Negative fair value of trading derivatives	3,433	17	3,177	239
Financial liabilities carried at fair value in the balance sheet	**5,443**	**17**	**5,186**	**240**

(1) Including €4,478 million for the positive fair value of trading derivatives.

↗ Note 40 Management of financial risks

As an operator in the energy sector worldwide, the EDF group is exposed to financial market risks, energy market risks and counterparty risks. All these risks are potential sources of volatility for the financial statements.

- Financial market risks

The main financial market risks to which the Group is exposed are the liquidity risk, the foreign exchange risk, the interest rate risk and the equity risk.

The objective of the Group's liquidity risk management is to seek resources at optimum cost and ensure their constant accessibility.

The foreign exchange risk relates to the diversification of the Group's businesses and geographical locations, and results from exposure to the risk of exchange rate fluctuations. These fluctuations can affect the Group's translation differences, balance sheet items, financial expenses, equity and net income.

The interest rate risk results from exposure to the risk of rate fluctuations in interest rates that can affect the value of assets invested by the Group, or its financial expenses.

The Group is exposed to equity risks, particularly through its dedicated asset portfolio held for secure financing of long-term nuclear commitments, through external pension funds, and to a lesser extent through its cash assets and directly-held investments.

A more detailed description of these risks can be found in chapter 9.5.1 of the operating and financial review.

- Energy market risks

With the opening of the end customer market, development of the wholesale markets and international business expansion, the EDF group is exposed to price variations on the energy market which can have a significant impact on its financial statements.

A more detailed description of these risks can be found in chapter 9.5.2 of the operating and financial review.

- Counterparty risks

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 failed to perform its contractual obligations.

A more detailed description of these risks can be found in sections 9.5.1.7 of the operating and financial review.

Regarding the risk of customer default, which is another component of the counterparty risk, a statement of receivables not yet due and overdue is shown in note 25.

The sensitivity analyses required by IFRS 7 are presented in the operating and financial review:

- Foreign exchange risks: section 9.5.1.3;
- Interest rate risks on financing issued and financial assets: section 9.5.1.4;
- Equity risk on financial assets: sections 9.5.1.5 and 9.5.1.6.

The principal information on financial assets and liabilities is described by theme in the following notes and sections:

- Liquidity risks:
  - maturity of loans and other financial liabilities: note 38.2.2 to notes to the consolidated financial statements,
  - credit lines: note 38.2.5 to notes to the consolidated financial statements,
  - early repayment clauses for borrowings: note 38.2.6 to notes to the consolidated financial statements,
  - off balance sheet commitments: note 44 to notes to the consolidated financial statements.
- Foreign exchange risks:
  - Breakdown of loans by currency and interest rate: notes 38.2.3 and 38.2.4 to notes to the consolidated financial statements.
- Equity risks (in the operating and financial review – sections 9.5.1.5 and 9.5.1.6):
  - coverage of nuclear obligations: notes 44.1.1 and 29.1.5 to notes to the consolidated financial statements,
  - coverage of social obligations: notes 31.2.4 and 31.3.3 to notes to the consolidated financial statements,
  - long-term cash management,
  - direct investments.
- Interest rate risks:
  - discount rate for nuclear provisions: calculation method and sensitivity: note 29.1.5.1 to notes to the consolidated financial statements,
  - discount rate used for employee benefits: notes 31.2.5 and 31.3.4 to notes to the consolidated financial statements,
  - breakdown of loans by currency and interest rate: notes 38.2.3 and 38.2.4 to notes to the consolidated financial statements.
- Balance sheet treatment of financial and market risks:
  - derivatives and hedge accounting: note 41 to notes to the consolidated financial statements, and the statement of changes in equity,
  - derivatives not classified as hedges: note 42 to notes to the consolidated financial statements.

Note 41 Derivatives and hedge accounting

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.

The fair value of hedging derivatives reported in the balance sheet breaks down as follows:

(in millions of Euros)	Notes	**31/12/2012**	31/12/2011
Positive fair value of hedging derivatives	36.1	2,421	2,776
Negative fair value of hedging derivatives	38.1	(2,279)	(2,010)
FAIR VALUE OF HEDGING DERIVATIVES		**142**	**766**
Interest rate hedging derivatives	41.4.1	675	337
Exchange rate hedges	41.4.2	(80)	679
Commodity-related cash flow hedges	41.4.3	(431)	(231)
Commodity-related fair value hedges	41.5	(22)	(19)

41.1 Fair value hedges

The EDF group hedges the exposure to changes in the fair value of fixed-rate 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. Fair value hedges also include currency hedging instruments on certain firm purchase commitments.

In 2012, the ineffective portion of fair value hedges represents a gain of €41 million (gain of €4 million in 2011), included in the financial result.

41.2 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 cross currency swaps;
- to hedge future cash flows related to expected sales and purchases of electricity, gas, and coal, using futures, forwards and swaps.

The EDF group also hedges the currency risk associated with fuel and commodity purchases.

In 2012, the ineffective portion of cash flow hedges represents a loss of €1 million (loss of €9 million in 2011).

41.3 Hedges of net investments in foreign entities

Hedging of net foreign investment 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.

41.4 Impact of hedging derivatives on equity

Changes during the period in the fair value of hedging instruments included in equity (EDF share) are detailed below:

(in millions of Euros)	2012 Gross changes in fair value recorded in equity [1]	2012 Gross changes in fair value transferred to income – Recycling [2]	2012 Gross changes in fair value transferred to income – Ineffectiveness	2011 Gross changes in fair value recorded in equity [1]	2011 Gross changes in fair value transferred to income – Recycling [2]	2011 Gross changes in fair value transferred to income – Ineffectiveness
Interest rate hedging	(42)	4	-	(156)	(1)	(9)
Exchange rate hedging	(608)	(264)	7	254	317	6
Net foreign investment hedging	(420)	-	-	(508)	-	-
Commodity hedging	(538)	(566)	-	(1,270)	(693)	-
HEDGING DERIVATIVES	**(1,608)**	**(826)**	**7**	**(1,680)**	**(377)**	**(3)**

(1) + / ( ): increase / (decrease) in equity (EDF's share).
(2) + / ( ): increase / (decrease) in income (EDF's share).

41.4.1 Interest rate hedging derivatives

Interest rate hedging derivatives break down as follows:

(in millions of Euros)	Notional at 31/12/2012 < 1 year	Notional at 31/12/2012 1 to 5 years	Notional at 31/12/2012 > 5 years	Notional at 31/12/2012 Total	Notional at 31/12/2011 Total	Fair value 31/12/2012	Fair value 31/12/2011
Purchases of CAP contracts	50	20	-	70	98	-	-
Purchases of options	45	25	-	70	120	(1)	(1)
Interest rate transactions	**95**	**45**	-	**140**	**218**	**(1)**	**(1)**
Fixed rate payer/floating rate receiver	539	1,151	1,273	2,963	3,833	(342)	(304)
Floating rate payer/fixed rate receiver	613	1,865	5,539	8,017	5,991	1,172	705
Variable/variable	1,177	272	38	1,487	1,520	-	16
Fixed/Fixed	1,320	3,323	4,514	9,157	10,141	(154)	(79)
Interest rate swaps	**3,649**	**6,611**	**11,364**	**21,624**	**21,485**	**676**	**338**
INTEREST RATE HEDGING DERIVATIVES	**3,744**	**6,656**	**11,364**	**21,764**	**21,703**	**675**	**337**

The fair value of interest rate/exchange rate cross-currency swaps comprises the interest rate effect only.

The notional value of cross-currency swaps is included both in this note and the note on Exchange rate hedging derivatives (41.4.2).

41.4.2 Exchange rate hedging derivatives

Exchange rate hedging derivatives break down as follows:

At 31 December 2012

(in millions of Euros)	Notional amount to be received				Notional amount to be given				Fair value
	< 1 year	1 to 5 years	> 5 years	Total	< 1 year	1 to 5 years	> 5 years	Total	31/12/2012
Forward exchange transactions	3,415	1,341	-	**4,756**	3,428	1,356	-	**4,784**	(22)
Swaps	14,617	5,875	4,690	**25,182**	14,603	5,694	4,956	**25,253**	(58)
Options	-	-	-	-	-	-	-	-	-
EXCHANGE RATE HEDGING DERIVATIVES	**18,032**	**7,216**	**4,690**	**29,938**	**18,031**	**7,050**	**4,956**	**30,037**	**(80)**

At 31 December 2011

(in millions of Euros)	Notional amount to be received				Notional amount to be given				Fair value
	< 1 year	1 to 5 years	> 5 years	Total	< 1 year	1 to 5 years	> 5 ans	Total	31/12/2011
Forward exchange transactions	4,704	1,755	-	**6,459**	4,656	1,744	-	**6,400**	75
Swaps	7,253	7,861	5,254	**20,368**	7,232	7,326	5,223	**19,781**	600
Options	90	-	-	**90**	93	-	-	**93**	4
EXCHANGE RATE HEDGING DERIVATIVES	**12,047**	**9,616**	**5,254**	**26,917**	**11,981**	**9,070**	**5,223**	**26,274**	**679**

The notional value of cross-currency swaps shown in this note is also included in the note on interest rate hedging derivatives (note 41.4.1).

41.4.3 Commodity-related cash flow hedges

For commodities, changes in fair value are mainly explained by:

(in millions of Euros)	**31/12/2012**	31/12/2011
Electricity hedging contracts	(142)	(489)
Gas hedging contracts	(73)	(62)
Coal hedging contracts	(371)	(591)
Oil product hedging contracts	104	42
CO_2 emission rights hedging contracts	(56)	(170)
CHANGES IN FAIR VALUE BEFORE TAXES	**(538)**	**(1,270)**

The main components of the amount transferred to income in respect of commodity hedges terminated during the year are:

(in millions of Euros)	**31/12/2012**	31/12/2011
Electricity hedging contracts	(296)	(530)
Gas hedging contracts	12	90
Coal hedging contracts	(280)	(348)
Oil product hedging contracts	35	106
CO_2 emission rights hedging contracts	(37)	(11)
CHANGES IN FAIR VALUE BEFORE TAXES	**(566)**	**(693)**

Details of commodity-related cash flow hedges are as follows:

(in millions of Euros)	Units of measure	31/12/2012 Net notional < 1 year	31/12/2012 Net notional 1 to 5 years	31/12/2012 Net notional > 5 years	31/12/2012 Net notional Total	31/12/2012 Fair value	31/12/2011 Net notional Total	31/12/2011 Fair value
Swaps		-	-	-	-	-	1	2
Forwards/futures		3	(3)	-	-	(5)	14	(195)
Electricity	**TWh**	**3**	**(3)**	**-**	**-**	**(5)**	**15**	**(193)**
Swaps		(296)	8	-	(288)	1	92	(9)
Forwards/futures		685	1,282	-	1,967	(39)	1,487	(72)
Gas	**Millions of therms**	**389**	**1,290**	**-**	**1,679**	**(38)**	**1,579**	**(81)**
Swaps		21,801	5,907	-	27,708	45	7,046	130
Oil products	**Thousands of barrels**	**21,801**	**5,907**	**-**	**27,708**	**45**	**7,046**	**130**
Swaps		10	4	-	14	(168)	12	39
Coal	**Millions of tonnes**	**10**	**4**	**-**	**14**	**(168)**	**12**	**39**
Forwards/futures		29,356	7,365	-	36,721	(265)	16,391	(127)
CO_2	**Thousands of tonnes**	**29,356**	**7,365**	**-**	**36,721**	**(265)**	**16,391**	**(127)**
Other commodities						**-**		**1**
COMMODITY-RELATED CASH FLOW HEDGES						**(431)**		**(231)**

41.5 Commodity-related fair value hedges

Details of commodity-related fair value hedges are as follows:

(in millions of Euros)	Units of measure	31/12/2012 Net notional	31/12/2012 Fair value	31/12/2011 Net notional	31/12/2011 Fair value
Gas (swaps)	Millions of therms	49	-	52	1
Coal and freight	Millions of tonnes	(32)	(22)	(15)	(20)
COMMODITY-RELATED FAIR VALUE HEDGES			**(22)**		**(19)**

Note 42 Derivatives not classified as hedges

Details of the fair value of trading derivatives reported in the balance sheet are as follows:

(in millions of Euros)	Notes	31/12/2012	31/12/2011
Positive fair value of trading derivatives	36.2	3,162	4,478
Negative fair value of trading derivatives	38.1	(2,290)	(3,433)
FAIR VALUE OF TRADING DERIVATIVES		**872**	**1,045**
Interest rate derivatives held for trading	42.1	(92)	(42)
Currency derivatives held for trading	42.2	(21)	(35)
Non-hedging commodity derivatives	42.3	985	1,122

42.1 Interest rate derivatives held for trading

Interest rate derivatives held for trading break down as follows:

	Notional at 31/12/2012				Notional at 31/12/2011	Fair value	
(in millions of Euros)	< 1 year	1 to 5 years	> 5 years	Total	Total	31/12/2012	31/12/2011
Fixed rate payer/floating rate receiver	2,369	904	573	3,846	4,562	(248)	(279)
Floating rate payer/fixed rate receiver	2,738	823	351	3,912	3,957	182	242
Variable/variable	200	725	-	925	355	(26)	(5)
INTEREST RATE DERIVATIVES HELD FOR TRADING	**5,307**	**2,452**	**924**	**8,683**	**8,874**	**(92)**	**(42)**

42.2 Currency derivatives held for trading

Currency derivatives held for trading break down as follows:

- **At 31 December 2012**

	Notional amount to be received				**Notional amount to be given**				**Fair value**
(in millions of Euros)	< 1 year	1 to 5 years	> 5 years	Total	< 1 year	1 to 5 years	> 5 years	Total	31/12/2012
Forward transactions	4,060	425	49	4,534	4,085	433	52	4,570	(32)
Swaps	6,446	131	-	6,577	6,435	133	-	6,568	11
Options	-	-	-	-	-	-	-	-	-
CURRENCY DERIVATIVES HELD FOR TRADING	**10,506**	**556**	**49**	**11,111**	**10,520**	**566**	**52**	**11,138**	**(21)**

- **At 31 December 2011**

(in millions of Euros)	Notional amount to be received < 1 year	1 to 5 years	> 5 years	Total	Notional amount to be given < 1 year	1 to 5 years	> 5 years	Total	Fair value 31/12/2012
Forward transactions	3,177	461	26	**3,664**	3,165	475	32	**3,672**	(10)
Swaps	2,171	144	11	**2,326**	2,175	144	12	**2,331**	(25)
Options	33	-	-	**33**	37	-	-	**37**	-
CURRENCY DERIVATIVES HELD FOR TRADING	**5,381**	**605**	**37**	**6,023**	**5,377**	**619**	**44**	**6,040**	**(35)**

42.3 Non-hedging commodity derivatives

Details of commodity derivatives not classified as hedges are as follows:

(in millions of Euros)	Units of measure	31/12/2012 Net notional	31/12/2012 Fair value	31/12/2011 Net notional	31/12/2011 Fair value
Swaps		3	715	(5)	485
Options		76	53	36	31
Forwards/futures		(42)	250	(14)	663
Electricity	TWh	**37**	**1,018**	**17**	**1,179**
Swaps		4,023	(10)	6	12
Options		25,118	-	16,022	81
Forwards/futures		(2,002)	(363)	591	(263)
Gas	Millions of therms	**27,139**	**(373)**	**16,619**	**(170)**
Swaps		64	10	133	17
Options		(187)	(1)	1	-
Forwards/futures		(218)	(1)	(81)	-
Oil products	Millions of barrels	**(341)**	**8**	**53**	**17**
Swaps		(45)	(170)	(48)	(632)
Forwards/futures		123	110	87	607
Freight		31	157	15	46
Coal and freight	Millions of tonnes	**109**	**97**	**54**	**21**
Swaps		(386)	27	(561)	-
Options		(546)	(2)	3,370	(2)
Forwards/futures		49,117	212	9,007	115
CO_2	Thousands of tonnes	**48,185**	**237**	**11,816**	**113**
Swaps			(6)		(40)
Other			**(6)**		**(40)**
Embedded commodity derivatives			**4**		**2**
NON-HEDGING COMMODITY DERIVATIVES			**985**		**1,122**

These mainly include contracts included in EDF Trading's portfolio.

CASH FLOWS AND OTHER INFORMATION

Note 43 Cash flows

43.1 Change in working capital

(in millions of Euros)	**2012**	2011
Change in inventories	(508)	(1,031)
Change in the CSPE receivable	(1,426)	(1,009)
Change in trade receivables	(510)	(567)
Change in trade payables	(27)	(5)
Change in other receivables and payable (excluding CSPE)	81	827
CHANGE IN WORKING CAPITAL	**(2,390)**	**(1,785)**

43.2 Investments in intangible assets and property, plant and equipment

(in millions of Euros)	**2012**	2011
Acquisitions of intangible assets	(817)	(544)
Acquisitions of tangible assets	(12,798)	(10,790)
Change in payables to suppliers of fixed assets	229	200
INVESTMENTS IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT	**(13,386)**	**(11,134)**

Note 44 Off-balance sheet commitments

This note presents off balance sheet commitments given and received by the Group at 31 December 2012. The changes observed in 2012 include the effect of full consolidation of Edison since 24 May 2012. The amounts of commitments correspond to non-discounted contractual values.

44.1 Commitments given

The table below shows off-balance sheet commitments given by the Group that have been valued at 31 December 2012. Other commitments are described separately in the detailed notes.

(in millions of Euros)	Notes	**31/12/2012**	31/12/2011
Fuel and energy purchase commitments	44.1.1	30,931	29,718
Operating contract performance commitments	44.1.2	20,529	19,791
Operating lease commitments as lessee	44.1.3	4,165	2,525
Investment commitments given	44.1.4	367	629
Financing commitments given	44.1.5	5,449	3,906
TOTAL COMMITMENTS GIVEN		**61,441**	**56,569**

44.1.1 Fuel and energy purchase commitments

In the course of its ordinary 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 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.

At 31 December 2012, fuel and energy purchase commitments mature as follows:

	31/12/2012					31/12/2011
	Total	Maturity				Total
(in millions of Euros)		< 1 year	1 to 5 years	5 to 10 years	> 10 years	
Electricity purchases and related services	7,676	2,060	2,482	1,119	2,015	9,467
Other energy and commodity purchases (1)	1,458	683	761	14	-	1,553
Nuclear fuel purchases	21,797	2,675	6,991	6,760	5,371	18,698
FUEL AND ENERGY PURCHASE COMMITMENTS	**30,931**	**5,418**	**10,234**	**7,893**	**7,386**	**29,718**

(1) Excluding gas purchases.

Most of the changes result from the increase in commitments to purchase nuclear fuel, partially offset by the lower level of electricity purchase contracts, especially at EDF.

44.1.1.1 Electricity purchases and related services

Electricity purchase commitments mainly concern EDF, and are mostly for Island Energy Systems (IES), which has made commitments to purchase the electricity generated using bagasse and coal, ERDF and EDF Energy.

In addition to the obligations reported above and under article 10 of the Law of 10 February 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, photovoltaic power, 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'Électricité* or CSPE). These purchase obligations total 36 TWh for 2012 (33 TWh for 2011), including 10 TWh for co-generation (12 TWh for 2011),14 TWh for wind power (12 TWh for 2011), 4 TWh for photovoltaic power (2 TWh for 2011) and 3 TWh for hydropower (3 TWh for 2011).

44.1.1.2 Other energy and commodity purchases

Purchase commitments for other energies and commodities mainly concern coal and oil used to operate the fossil-fired plants.

44.1.1.3 Nuclear fuel purchases

Commitments for purchases of nuclear fuel arise from supply contracts for the nuclear plants intended to cover the EDF group's needs for uranium and fluoration, enrichment and fuel assembly production services.

The increase in these commitments mainly results from the signature of new contracts or amendments in 2012, amounting to €4.8 billion.

44.1.1.4 Gas purchases and related services

Gas purchase commitments are principally undertaken by Edison.

Edison has entered into agreements to import natural gas from Russia, Libya, Algeria and Qatar, for total supplies of 14.4 billion m^3 per year. These contracts contain "take-or-pay" clauses committing the buyer to pay for a minimum volume of gas every year, whether or not it actually takes delivery of that volume. At 31 December 2012, off-balance sheet commitments under Edison's take-or-pay clauses amount to €414 million, corresponding to the value of the volumes of gas not withdrawn at that date, for which delivery is deferred to a subsequent period.

Under the contract with Terminale GNL Adriatico, a gas liquefaction unit in operation since October 2009 in which Edison has a 7.3% holding, Edison also benefits from approximately 80% of the terminal's regasification capacities until 2034, for an annual premium of approximately €100 million.

Gas purchase commitments have also been given by EDF, in connection with its expanding gas supply business, and by subsidiaries for which these commitments are generally covered by electricity sale agreements which include "pass-through" clauses allowing almost all fluctuations in supply source costs to be passed on to the customer.

44.1.2 Operating contract performance commitments given

(in millions of Euros)	31/12/2012 Total	Maturity < 1 year	Maturity 1 to 5 years	Maturity > 5 years	31/12/2011 Total
Satisfactory performance, completion and bid guarantees	486	157	186	143	566
Commitments related to orders for operating items [1]	4,379	2,620	1,253	506	4,354
Commitments related to orders for fixed assets	11,657	5,962	5,080	615	12,083
Other operating commitments	4,007	2,138	1,131	738	2,788
OPERATING CONTRACT PERFORMANCE COMMITMENTS GIVEN	**20,529**	**10,877**	**7,650**	**2,002**	**19,791**

(1) Excluding fuel and energy.

In the course of its business, the Group provides contract performance guarantees, generally through the intermediary of banks.

Satisfactory performance, completion and bid guarantees at 31 December 2012 mainly consist of guarantees given by EDF Énergies Nouvelles in connection with its development projects and Dalkia International.

At 31 December 2012, commitments related to orders for operating items and fixed assets break down as follows:

(in millions of Euros)	31/12/2012 Commitments related to orders for operating items	31/12/2012 Commitments related to orders for fixed assets	31/12/2012 Total	31/12/2011 Commitments related to orders for operating items	31/12/2011 Commitments related to orders for fixed assets	31/12/2011 Total
EDF SA	2,420	7,908	10,328	2,410	6,882	9,292
ERDF	426	930	1,356	427	800	1,227
EDF Énergies Nouvelles	611	600	1,211	670	1,538	2,208
EDF Energy	622	603	1,225	509	758	1,267
PEI [1]	-	414	414	-	844	844
Dunkerque LNG [2]	-	656	656	-	783	783
Other entities	300	546	846	338	478	816
COMMITMENTS RELATED TO ORDERS	**4,379**	**11,657**	**16,036**	**4,354**	**12,083**	**16,437**

(1) Principally commitments related to construction of fossil-fired plants.
(2) Principally commitments related to construction of the methane terminal at Dunkirk.

The decrease in orders for fixed assets by EDF Énergies Nouvelles essentially concerns orders for turbines, particularly in the USA and Canada, and solar panels in France.

Other operating commitments mainly concern EDF SA (€1,017 million compared to €728 million in 2011) and Edison (€1,292 million, compared to €683 million in 2011). At Edison, the change in consolidation method explains €713 million of the rise in commitments at 31 December 2012.

44.1.3 Operating lease commitments as lessee

At 31 December 2012, operating lease commitments as lessee break down as follows:

	31/12/2012				31/12/2011
	Total	Maturity			Total
(in millions of Euros)		< 1 year	1 to 5 years	> 5 years	
OPERATING LEASE COMMITMENTS AS LESSEE	**4,165**	**514**	**1,784**	**1,867**	**2,525**

The Group is bound as lessee by irrevocable operating lease contracts, principally for premises, equipment and vehicles used in the course of its business and maritime freight contracts for trading activities. The corresponding rents are subject to renegotiation at intervals defined in the contracts. Operating leases mainly concern EDF, EDF Énergies Nouvelles and EDF Trading.

The change in the year essentially relates to new contracts for real estate commitments undertaken by EDF.

44.1.4 Investment commitments given

At 31 December 2012, commitments related to investments are as follows:

	31/12/2012				31/12/2011
	Total	Maturity			Total
(in millions of Euros)		< 1 year	1 to 5 years	> 5 years	
Investment commitments	333	281	13	39	427
Other commitments related to investments	34	28	4	2	202
INVESTMENT COMMITMENTS GIVEN	**367**	**309**	**17**	**41**	**629**

44.1.4.1 Investment commitments

Investment commitments at 31 December 2011 included the commitment to purchase EnBW's holdings in Polish entities for €301 million. The Group undertook these purchases on 16 February 2012.

At 31 December 2012, these commitments include the share purchase commitments related to EDF Énergies Nouvelles' takeover of Iberdrola's French onshore wind farms, and shares in the Electranova Capital fund.

The residual commitments principally concern the following operations:

- 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.
- Commitment by EDF Energy to Centrica
  Centrica has a 20% investment in the project company in charge of constructing four EPRs in the United Kingdom. EDF Energy holds the other 80%.
  At 31 December 2012, Centrica had a put option to sell this investment to EDF, to be triggered by criteria related to the pre-development budget, or exercised just before the final investment decision for the first EPR. On 4 February 2013, Centrica announced its decision to exercise this put option (see note 51.2), which due to its value does not constitute a significant commitment for the Group.
- In connection with the formation of EDF Investissements Groupe, C3 (a wholly-owned EDF subsidiary) signed unilateral promises with NBI (Natixis Belgique Investissement, a subsidiary of the Natixis group) 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 net asset value of EDF Investisssements Groupe until 2030. At 31 December 2012, C3's option to sell its total investment to NBI expired.

44.1.4.2 Other commitments related to investments

At 31 December 2011, these commitments essentially comprised Dalkia International's obligation to invest in the Warsaw network (as part of the acquisition of Spec).

44.1.5 Financing commitments given

Financing commitments given by the Group at 31 December 2012 comprise the following:

	31/12/2012				31/12/2011
	Total	Maturity			Total
(in millions of Euros)		< 1 year	1 to 5 years	> 5 years	
Security interests in real property	4,906	193	1,389	3,324	3,449
Guarantees related to borrowings	218	11	40	167	158
Other financing commitments	325	170	83	72	299
FINANCING COMMITMENTS GIVEN	**5,449**	**374**	**1,512**	**3,563**	**3,906**

Security interests and assets provided as guarantees mainly concern pledges or mortgages of tangible assets 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 €4,906 million at 31 December 2012 (€3,449 million in 2011), up by €1,457 million.

Most financing commitments were given by EDF Énergies Nouvelles. The increase in these commitments over 2012 primarily reflects the financing of new fleets in the US and UK.

44.2 Commitments received

The table below shows off-balance sheet commitments received by the Group that have been valued at 31 December 2012. Other commitments are described separately in the detailed notes.

		31/12/2012				31/12/2011
	Notes	Total	Maturity			Total
(en millions d'euros)			< 1 year	1 to 5 years	> 5 years	
Operating commitments	44.2.1	1,557	1,096	358	103	1,871
Operating lease commitments as lessor	44.2.3	1,379	289	748	342	1,268
Investment commitments received	44.2.4	17	-	17	-	18
Financing commitments received	44.2.5	129	25	9	95	239
TOTAL COMMITMENTS RECEIVED (1)		**3,082**	**1,410**	**1,132**	**540**	**3,396**

(1) Excluding electricity supply commitments detailed in note 44.2.2 and credit lines presented in note 38.2.5.

44.2.1 Operating commitments received

Operating commitments received essentially concern EDF at 31 December 2012.

44.2.2 Electricity supply commitments

In the course of its business, the EDF group has signed long-term contracts to supply electricity as follows:

- Long-term contracts with a number of European electricity operators, for a specific plant or for a defined group of plants in the French nuclear generation fleet, corresponding to installed power capacity of 3.5 GW. 26.2 TWh were supplied under these contracts in 2012.
- In execution of France's NOME law on organisation of the French electricity market, EDF has a commitment to sell some of the energy generated by its "traditional" nuclear power plants to other suppliers. This covers volumes of up to 100 TWh each year until 31 December 2025 (66.4 TWh for 2012).
- In the United Kingdom, EDF made a commitment in 2009 to supply an additional 18 TWh of electricity to Centrica at market prices for a 5-year period starting in 2011. This relates to an obligation to put certain volumes of electricity on the market between 2012 and 2015, required by the European Commission on 22 December 2008 as a condition for the EDF group's acquisition of British Energy. The residual commitment at 31 December 2012 concerns a volume of 12.8 TWh.
- EDF is still committed to supplying the residual volumes of 12 TWh by March 2015, in application of the rights acquired at VPP or Virtual Power Plant capacity auctions, which ended in 2011.

In France, a ruling by the French competition authorities (*Conseil de la concurrence*) on 10 December 2007 required EDF to tender a significant capacity of electricity (1,500 MW, i.e. approximately 10 TWh per year for 15 years) to alternative energy suppliers at prices enabling them to compete effectively with EDF's offers on the deregulated mass market. All of these contracts have been terminated by the subscribing counterparties, and EDF no longer has any related electricity supply commitments at 31 December 2012.

44.2.3 Operating lease commitments as lessor

The Group has commitments as lessor in operating leases amounting to €1,379 million.

Most of these commitments derive from contracts classified as operating leases under IFRIC 4, "Determining whether an arrangement contains a lease". They mainly concern the Asian Independant Power Projects (IPPs).

44.2.4 Investment commitments received

No significant investment commitment received exists at 31 December 2012.

44.2.5 Financing commitments received

No significant financing commitment received exists at 31 December 2012.

Note 45 Contingent liabilities

45.1 Proceedings by the Baden-Württemberg region/EnBW

In February 2012, EDF International received a request for arbitration filed with the International Chamber of Commerce by the German company Neckarpri GmbH, the vehicle for the Baden-Württemberg region's acquisition of the EDF group's stake in EnBW, which was agreed on 6 December 2010 and completed on 17 February 2011.

Neckarpri claims that the price paid for the EDF group's investment in EnBW was excessive and therefore constitutes illegal State aid. On those grounds, it is claiming reimbursement of the allegedly excess portion of the price. This was initially estimated at €2 billion in the request for arbitration, but was re-estimated at €834 million in July 2012 in an independent report on the valuation of EnBW commissioned by Baden-Württemberg. As an alternative Neckarpri is seeking cancellation of the sale of the EDF group's stake in EnBW.

The arbitration procedure is currently in process. EDF considers this claim unfounded and a misuse of law, and intends to sue for damages for all the kinds of prejudices caused by this action.

45.2 General network – rejection of the European Commission's appeal

On 15 December 2009, the European Union Court cancelled the European Commission's decision of 16 December 2003 that had classified the tax treatment of provisions created for the renewal of the General Network at the time of EDF's capital increase in 1997 as state aid, and ordered repayment to the French State of the updated value, i.e. €1,224 million (paid by EDF in February 2004). The State therefore reimbursed this amount to EDF on 30 December 2009, then in February 2010 the European Commission filed an appeal before the Court of Justice of the European Union.

On 5 June 2012, the Court of Justice of the European Union issued a decision rejecting the European Commission's appeal and upheld the European Union Court's decision of 15 December 2009.

45.3 Tax inspections

EDF

In 2008 and 2009 EDF underwent a tax inspection covering the tax years 2004, 2005 and 2006.

One of the grounds for reassessment concerns the tax-deductibility of the provision for annuities following work-related accidents and illness; as this is an issue that relates to the special gas and electricity (IEG) statutes, it also concerns RTE, ERDF and Électricité de Strasbourg. The Group is contesting the tax authorities' position on the deductibility of this provision. In late 2011 the National Commission of direct taxes and sales taxes issued an opinion supporting EDF's position on the principal grounds for reassessment arising from the inspection of the years 2004 to 2006, notably confirming the deductibility of the provision for annuities following work-related accidents and illness. If the outcome of this dispute is unfavourable, the financial risk for the Group (payment of back income taxes) could amount to some €250 million. The reassessment demand was sent to the Company in late 2011. A complaint applying for suspension of this demand was sent to the tax administration in 2012 to initiate the formal dispute procedure, but no answer had been received by the end of the year.

During 2010, a further inspection was begun of the years 2007 and 2008, and in late 2011 EDF was notified of a proposed rectification for 2008. EDF is contesting most of the tax reassessments, amounting to approximately €900 million, concerning deductibility of certain long-term liabilities. The administration confirmed these reassessments in 2012. The Company considers it is likely to win this dispute, and no provision has been established for the principal grounds for tax reassessment.

The tax administration has also proposed a reassessment following inspections of 2008 and 2009, concerning an interest-free advance made by EDF to its indirect subsidiary Lake Acquisitions Ltd in connection with the acquisition of British Energy. EDF is contesting this reassessment.

Finally, another inspection has started in 2012 related to years 2009 and 2010. Late in the year the Company received a proposed rectification, of a non-significant amount, for 2009. EDF is contesting this proposed rectification.

EDF International

The tax inspection of EDF International for the years 2008 and 2009 led to a proposed rectification received in late 2011. Two main reassessments amounting to some €135 million concerned the amount of the loss on the contribution of CEG shares to the American subsidiary EDF Inc. which arose in late 2009 and was deducted from EDF International's income, and the valuation of the bond convertible into shares issued to refinance the acquisition of British Energy. In 2012 EDF International contested these reassessments, and considers it has good chances of winning the dispute. In late 2012 EDF International began amicable proceedings, involving France and the USA and based on the US-France tax treaty concerning the valuation of CEG shares at the time of the contribution.

45.4 Labour litigation

EDF is party to a number of labour lawsuits with employees and employment inspectors, primarily regarding calculation and implementation of legislation regarding working hours. 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 concern a large number of EDF's employees in France, any increase in such litigations could present a risk with a potentially significant, negative impact on the Group's financial results. The number of these litigation cases is nonetheless small at the time of preparing this report.

45.5 ERDF – appeal against the TURPE 3 tariff decisions

On 28 November 2012, the Council of State announced the cancellation of the decisions of 5 May and 5 June 2009 setting the TURPE 3 distribution network access tariff.

The grounds for cancellation concerned the method used to calculate weighted average cost of capital (WACC): the Council of State judged this method "an error in law" because it does not take account of "the special concession accounts, which correspond to the grantor's rights to recover concession assets for no consideration at the end of the contract (…) and the provisions for renewal of assets".

This cancellation will be effective from 1 June 2013. In the meantime, the CRE (French market regulator) must propose new distribution tariffs for approval by the Ministers of the Economy and Energy, taking into account the decision of the Council of State, and these tariffs will replace the cancelled tariffs retroactively. The new tariff decision is currently in preparation.

EDF does not expect this decision to have any significant consequences for the Group's results.

45.6 ERDF - litigation with photovoltaic producers

Photovoltaic installations benefit from an obligation incumbent on EDF (or local distribution companies) to purchase the electricity they generate on terms defined by public regulations that have so far provided an incentive for photovoltaic energy. This system encouraged early development of photovoltaic power in France, but the resulting pace of growth in the sector was considered too fast, and the French government followed up a series of decisions lowering the purchase tariffs (12 January, 16 March, and 31 August 2010) by a "moratorium decree" on 9 December 2010: this decree suspended conclusion of new contracts for a three-month period and stipulated that applications for which the technical and financial proposals had not been adopted by 2 December 2010 would have to be resubmitted after that three-month period, based on a photovoltaic power purchase tariff set in a new decision. This decision was issued on 4 March 2011 and significantly reduced the purchase price for photovoltaic electricity.

In anticipation of the coming tariff changes, there was an upsurge in the number of applications from photovoltaic operators for connection received by ERDF's units, particularly in August 2010. Despite the significant measures taken to process these applications, ERDF was not always able to issue technical and financial proposals in time for the power generators to benefit from the pre-4 March 2011 tariffs.

A Council of State decision of 16 November 2011 rejecting appeals against the moratorium decree of December 2010 generated a large volume of legal proceedings against ERDF in November and December 2011, and also, although at a slower pace, throughout 2012. Most actions were initiated by generators who found themselves forced to abandon their projects because the new electricity purchase tariffs made operating conditions less favourable; they consider ERDF responsible for this situation since it did not issue the technical and financial connection proposals in time for them to benefit from more advantageous electricity purchase terms. ERDF considers that it cannot be held liable, and has lodged appeals against the small number of first instance rulings against it issued in 2011 and 2012.

45.7 EDF Énergies Nouvelles – Silpro

Silpro (Silicium de Provence) entered court-ordered liquidation on 4 August 2009. The EDF ENR group held a 30% minority interest in Silpro alongside the principal shareholder, the German company Sol Holding. On 30 May 2011, the liquidator ordered the shareholders and managers of Silpro to jointly repay the shortfall in assets resulting from Silpro's liquidation, which amounts to €101 million. After examining the situation, the Group does not consider it necessary to recognise a provision.

45.8 Edison – appeal by Carlo Tassara

Carlo Tassara, a company that was Edison's largest minority shareholder, initiated action on 12 July 2012 before the Lazio (Rome) Regional Administrative Court, seeking an increase in the price of the mandatory tender offer for Edison shares launched by EDF's subsidiary Transalpina di Energia (TdE) after the takeover of Edison on 24 May 2012. This action was brought against the Italian financial market authority CONSOB, EDF and its Italian subsidiaries (MNTC, WGRM4 et TdE), Edison, Delmi and A2A. No date has yet been set for the court hearing, and any ruling would be open to appeal before the Italian Council of State.

In parallel, in May 2012 Carlo Tassara submitted an application to the Consob for an increase in the price of the mandatory tender offer, based on practically identical arguments to those used in the proceedings on the substance of the matter before the Administrative Court. The Consob rejected this application on 25 July 2012, and no appeal was made.

EDF considers that Carlo Tassara has not provided any evidence to challenge the offer price as confirmed by the Consob, and that these proceedings are unfounded.

Note 46 Held-for-sale assets and liabilities

(in millions of Euros)	**31/12/2012**	31/12/2011
Assets classified as held for sale	**241**	**701**
Liabilities related to assets classified as held for sale	**49**	**406**

Held-for-sale assets and liabilities as stated in the balance sheet at 31 December 2011 correspond to Edison's investment in Edipower, which was sold on 24 May 2012 (see note 3.1).

Note 47 Contribution of joint ventures

The joint ventures' contributions to the consolidated balance sheet and income statement are as follows:

At 31 December 2012:

(in millions of Euros)	% of ownership	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Sales	Operating profit before depreciation and amortisation
CENG	49.99%	458	4,537	104	1,789	552	155
Other		2,546	3,962	1,959	1,213	3,489	507
TOTAL		**3,004**	**8,499**	**2,063**	**3,002**	**4,041**	**662**

At 31 December 2011:

(in millions of Euros)	% of ownership	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Sales	Operating profit before depreciation and amortisation
Edison	48.96%	2,106	5,002	1,744	2,176	6,068	480
CENG	49.99%	424	4,866	106	1,781	542	194
Other		3,231	6,654	3,028	781	3,195	456
TOTAL		**5,761**	**16,522**	**4,878**	**4,738**	**9,805**	**1,130**

"Other" mainly concerns Dalkia International and EDF Investissements Groupe.

↗ Note 48 Dedicated assets

48.1 Regulations

The French law of 28 June 2006 and the implementing regulations require assets (dedicated assets) to be set aside for secure financing of nuclear plant decommissioning expenses and long-term storage expenses for radioactive waste (spent fuel and fuel recovered from decommissioning). The regulations govern the way dedicated assets are built up, and the management and governance of the funds themselves. These assets are clearly identified and managed separately from the company's other financial assets and investments. They are also subject to specific monitoring and control by the Board of Directors and the administrative authorities.

The initial aim of these laws and regulations was to cover the full present cost of long-term nuclear obligations by 29 June 2011. The NOME law enacted in 2010 introduced a 5-year extension, subject to certain conditions, of the deadline for constitution of dedicated assets.

The decree of 29 December 2010 made RTE shares eligible for dedicated assets, subject to certain conditions and administrative authorisation. Since the conditions were fulfilled and authorisation was received, 50% of EDF's shares in RTE were allocated to dedicated assets on 31 December 2010.

48.2 Portfolio contents and measurement

EDF's dedicated assets consist of diversified bond and equity investments, and since 31 December 2010 after the administrative authority gave its approval, 50% of the shares in RTE. Given the applicable regulations, these dedicated assets are a highly specific category of assets.

48.2.1 Diversified bond and equity investments

Certain dedicated assets take the form of bonds held directly by EDF. The rest comprise specialised collective investment funds on leading international markets, managed by independent asset management companies. They take the form of open-end funds and "reserved" funds established solely for the use of the Group (which does not participate in the fund management).

This portfolio is structured and managed according to a strategic allocation defined by the Board of Directors and reported to the administrative authorities. The strategic allocation is designed to meet the overall objective of long-term coverage of obligations, and determines the structure and management of the portfolio as a whole. It also takes into consideration international stock market cycles (for which the statistical inversion generally observed between equity market cycles and bond market cycles – as well as between geographical areas – has led the Group to define an overall composite benchmark indicator), and continuation of the long-term investment policy.

As a result, for accounting purposes the portfolio is evaluated as a whole, all funds combined, treating the cash flows generated as a group of financial assets. This ensures consistency with the specificities of the dedicated asset portfolio, in particular the legal association with the liability and the distant timing of significant payments – the first important due date is not until 2021, and payments continue until 2117 for the plants currently in operation.

At the year-end, dedicated assets are presented in available-for-sale financial assets in the balance sheet, at their liquidation value. In view of the specific financial characteristics of the portfolio of dedicated assets, the Group has exercised judgment in determining whether indicators of impairment appropriate to the structure of the portfolio should be taken into consideration.

EDF thus takes a 5-year period as the basis for assessment of prolonged decline compared to historical value. This period is at the low end of the range of statistical estimates concerning stock markets. Also, based on statistical observations of the asset/liability management model used for this portfolio, EDF considers impairment of dedicated assets to be significant when the value is 40% or more below the portfolio's historical value.

In parallel to these general criteria for impairment, in the course of operational asset monitoring EDF exercises judgment through its long-term management rules defined and supervised by its governance bodies (maximum investment ratios, volatility analyses and assessment of individual fund manager quality).

48.2.2 RTE shares

By allocating RTE shares to dedicated assets, the Group diversified its dedicated asset portfolio and reduced its volatility, since infrastructure assets such as RTE offer predictable returns that have low correlation with other categories of financial assets such as equities and bonds.

The value of the RTE shares allocated to dedicated assets is €2,393 million at 31 December 2012 (€2,310 million at 31 December 2011). This value is the net consolidated value of 50% of the Group's investment in RTE, presented in investments in associates in the consolidated balance sheet.

48.3 Valuation of EDF's dedicated asset portfolio and present cost of the associated long-term nuclear obligations

Dedicated assets are included in the EDF group's consolidated financial statements at the following values:

(in millions of Euros)	Balance sheet presentation	**31/12/2012**	31/12/2011
Equities		7,328	5,801
Debt instruments and cash portfolio		7,890	7,510
Dedicated assets – equities and debt instruments	Available-for-sale financial assets	*15,218*	*13,311*
Currency/equity hedging derivatives	Fair value of hedging derivatives	13	(22)
Other		2	2
Total diversified investments (bonds and equities)		**15,233**	**13,291**
RTE (50% of the Group's investment)	Investments in associates	**2,393**	**2,310**
TOTAL DEDICATED ASSETS		**17,626**	**15,601**

48.4 Changes in the dedicated asset portfolio in 2012

Cash allocations to the dedicated asset portfolio were suspended in October 2011 in view of market conditions, but resumed in January 2012. They amounted to €737 million for the year 2012 (€315 million in 2011).

In a context marked by the European sovereign debt crisis, the Group continued its prudent investment policy for these financial instruments in 2012, and as a result its exposure at year-end was carefully controlled for Italy and negligible for the most severely affected Euro-zone countries (Greece, Portugal, Ireland and Spain). The Group also adjusted its position on German government bonds that were considered to offer insufficient returns.

Withdrawals totalling €350 million were made, equivalent to payments made in respect of the long-term nuclear obligations to be covered in 2012 (€378 million in 2011).

The Group's assessment of the value of the dedicated asset portfolio did not lead to recognition of any impairment in 2012.

A total of €260 million in net gains on disposals was recorded in the financial result in 2012 (€76 million in 2011).

The difference between the fair value and acquisition cost of diversified bond and equity investments included in equity is a positive €1,221 million before taxes at 31 December 2012 (€219 million at 31 December 2011).

48.5 Present cost of long-term nuclear obligations

The Group's long-term nuclear obligations in France concerned by the regulations for dedicated assets are included in EDF's consolidated financial statements at the following values:

(in millions of Euros)	**31/12/2012**	31/12/2011
Provisions for long-term radioactive waste management	7,113	6,722
Provisions for nuclear plant decommissioning	12,578	11,366
Provisions for last cores – portion for future long-term radioactive waste management	434	389
PRESENT COST OF LONG-TERM NUCLEAR OBLIGATIONS	**20,125**	**18,477**

Note 49 Related parties

Details of transactions with related parties are as follows:

(in millions of Euros)	Proportionally consolidated companies		Associates		French State or State-owned entities		Group Total	
	31/12/2012	31/12/2011	**31/12/2012**	31/12/2011	**31/12/2012**	31/12/2011	**31/12/2012**	31/12/2011
Sales	2	5	3,585	3,437	917	880	4,504	4,322
Fuel and energy purchases	45	183	504	666	1,827	1,691	2,376	2,540
Other external purchases	-	-	128	134	1,093	880	1,221	1,014
Financial assets	-	41	-	-	181	262	181	303
Other assets	12	236	1,295	1,242	608	535	1,915	2,013
Financial liabilities	223	136	1,174	1,400	-	1	1,397	1,537
Other liabilities	16	224	734	794	1,212	821	1,962	1,839

The change in proportionally-consolidated companies between 2011 and 2012 principally reflects the takeover of the Edison group on 24 May 2012.

49.1 Transactions with entities included in the scope of consolidation

Transactions with RTE (classified as an associate since 31 December 2010) are presented in note 23.1.

Transactions with other joint ventures and associates concern sales and purchases of energy.

49.2 Relations with the French State and State-owned entities

49.2.1 Relations with the French State

The French State holds 84.4% of the capital of EDF at 31 December 2012, and is thus entitled in the same way as any majority shareholder to control decisions that require approval by the shareholders.

In accordance with the legislation applicable to all companies having the French State as their majority shareholder, the EDF group 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 27 July 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 24 October 2005. This contract is intended to form the framework for public service missions entrusted by the lawmaker to EDF for an unlimited period. The law of 9 August 2004 does not stipulate 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, establishment of sales tariffs for customers that have stayed on the regulated tariffs, transmission and distribution tariffs, and also determination of the ARENH price in accordance with the NOME law, and the level of the Contribution to the Public Electricity Service (*Contribution au Service Public de l'Électricité* or CSPE).

49.2.2 Relations with GDF SUEZ

Since the distribution network management businesses were transferred to subsidiaries – ERDF, a subsidiary of EDF, has managed electricity distribution since 1 January 2007 and GRDF, a subsidiary of GDF SUEZ, has managed gas distribution since 1 January 2008 – the agreement of 18 April 2005 (amended on 20 December 2007) defining relations between EDF and GDF in respect of the common operator was transferred to the two new companies, and has been executed by them since that date. The common network operator's activities for the distribution sector cover network construction, network operation and maintenance, and metering.

49.2.3 Relations with public sector entities

The Group's relations with public sector entities mainly concern AREVA.

Transactions with AREVA concern uranium purchases, uranium enrichment, nuclear fuel purchases, plant maintenance operations, equipment purchases, and transportation, storage, processing and recycling services for spent fuel.

On 15 December 2008, EDF and AREVA signed an agreement for uranium enrichment services to cover the period 2013-2032.

On 19 December 2008, EDF and AREVA signed a framework agreement for spent fuel management contracts concerning periods after 2007. In execution of this agreement, EDF and AREVA signed two contracts on 12 July 2010 entitled the "EDF-AREVA NC Processing-Recycling agreement" and the "Protocol for recovery and conditioning of EDF waste, and the final shutdown and decommissioning of the AREVA NC plant at La Hague".

EDF and AREVA have signed the following contracts for 1,300 MW nuclear power plants:

- a contract for supply of 32 steam generators and a contract for renewal of the control/command systems in 2011;
- a contract for services related to replacement operations for the first steam generators, in August 2012.

On 31 July 2012 EDF and AREVA Mines also signed two contracts for supplies of natural uranium concentrate, covering the period 2014-2035.

The Group also holds shares in AREVA, as stated in note 36.2.2.2.

49.3 Management compensation

The Company's key management and governance personnel are the Chairman of the Board of Directors, the members of the Comex (Executive Committee) throughout the year or since their date of appointment if they joined the Comex during the year, and the members of the Board of Directors appointed by the General Shareholders' Meeting.

The total compensation paid by EDF and controlled companies to the Group's key management and governance personnel amounted to €12.5 million in 2012 (€11.3 million in 2011). This amount covered short-term benefits (basic salaries, performance-related salary, profit share and benefits in kind), special IEG post-employment benefits where relevant, and the corresponding employer contributions, plus director's fees. The change observed in 2012 is chiefly explained by the fact that certain members of the Comex retired during the year, and their contractual retirement bonuses and performance-related salary were paid in 2012.

Other than the benefits reported above, key management and governance personnel benefit from no other special pension system, starting bonus or severance payment entitlement except by contractual arrangement.

↗ Note 50 Environment

50.1 Greenhouse gas emission rights

In application of the Kyoto protocol, the EU Directive aiming to reduce greenhouse gas emission levels by attributing emission rights came into effect in 2005, for an initial three-year period which ended on 31 December 2007 and was marked by a reduction in the volumes of rights allocated.

The second allocation period ran from 2008 to 2012.

In the EDF group, the entities subject to this Directive are EDF, EDF Energy, Edison, Fenice, Dalkia International and Dalkia Investissement, Bert, Kogeneracja, Zielona Gora, EC Krakow, ERSA, EC Wybrzeze, EDF Luminus and ESTAG.

In 2012, the Group surrendered 69 million tonnes in respect of emissions generated in 2011. In 2011, the Group surrendered 71 million tonnes in respect of emissions generated in 2010.

The Group's total emission rights allocation for 2012 recorded in the national registers is 72 million tonnes (59 million tonnes for 2011).

The volume of emissions at 31 December 2012 stood at 67 million tonnes. The provision resulting from over-quota emissions amounts to €152 million and covers the shortfall in quotas at 31 December 2012 (€149 million at 31 December 2011).

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 carbon emission permits. This fund involves EDF and all the European entities, and is managed by EDF Trading.

CER credit purchases through the Carbon Fund amount to €192 million at 31 December 2012 (€192 million at 31 December 2011).

50.2 Energy savings certificates

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 13 July 2005, for example, 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. 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.

In the second period, which began on 1 January 2011 and runs until 31 December 2013, the system was extended to new obligated actors (fuel distributors) and applies stricter requirements for obtaining energy savings certificates. EDF is well-placed to meet its obligation thanks to energy-efficient offers for each market segment: residential customers, business customers, local authorities and organizations funding social projects.

EDF's obligation will be calculated retrospectively, based on gas and electricity sales to households and service sector businesses for the period 2010-2012. The volumes of certificates obtained between the two periods will count towards achievement of the obligation for the second period.

50.3 Renewable energy certificates

In the United Kingdom, Poland, Belgium 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 and an obligation for energy suppliers to sell a certain quantity of renewable energy. In practice, the generator or supplier must provide proof that the obligation has been fulfilled or surrender the renewable energy certificates gained and/or purchased. Similar systems have been introduced for cogeneration.

At 31 December 2012, a provision of €430 million was recorded, essentially to cover shortfalls in certificates in the United Kingdom and Belgium.

Note 51 Subsequent events

51.1 Bond issue with unlimited maturity

On 22 January 2013, EDF launched several tranches of a bond in Euros and sterling with unlimited maturity:

- €1.25 billion at 4.25% coupon for the tranche with a 7-year first call date;
- €1.25 billion at 5.375% coupon for the tranche with a 12-year first call date;
- £1.25 billion at 6% coupon for the tranche with a 13-year first call date.

On 24 January 2013, EDF also launched a US$ 3 billion bond with unlimited maturity at 5.25% coupon and a 10-year first call date.

These instruments are subordinated to all senior debt, which explains why their coupon is higher than senior bonds. They will be included in equity in the Group's 2013 consolidated financial statements from reception of the funds (29 January 2013).

This is the first time the Group has issued this type of instrument, which it considers a tool for balance sheet optimisation in view of the useful lives of its assets and the long-term investment cycle of its industrial projects.

51.2 Decision by Centrica to withdraw from the plan to construct EPRs in the United Kingdom

On 4 February 2013, Centrica announced its decision to end its partnership with EDF for the construction of EPRs in the United Kingdom, by exercising its option to sell EDF Energy its 20% investment in Nuclear New Build Holdings (NNBH), a company formed as a vehicle for "Nuclear New Build" projects in the UK. EDF already owned 80% of NNBH via EDF Energy, and will therefore become the company's sole shareholder.

The exercise price for this option is non-significant for the Group.

EDF is continuing discussions with the British government to agree on a sale price for zero-carbon electricity. Once this price has been set, the Group is confident that the Hinkley Point EPR project will attract considerable interest from investing partners and will go ahead.

Centrica will continue to work with EDF through its 20% interest in existing nuclear facilities in the United Kingdom, and retains its commercial electricity purchase contracts with the Group.

51.3 Allocation of the CSPE receivable to dedicated assets for secure financing of long-term nuclear expenses

In application of the decree of 23 February 2007, on 8 February 2013 the French government authorised allocation of CSPE receivable held by EDF to the dedicated assets for secure financing of long-term nuclear expenses.

In view of this authorisation, the positive opinion of the Nuclear Commitments Monitoring Committee and the deliberations of the Board of Directors at its meeting of 13 February 2013, EDF has decided to allocate the total receivable, which represents the accumulated shortfall in CSPE compensation at 31 December 2012 and amounts to €4.9 billion, to dedicated assets. This allocation is concurrent with withdrawals of €2.4 billion of assets from the portfolio (diversified bonds and equity investments, see note 48), such that the net allocation to dedicated assets is €2.5 billion. The objective of reaching 100% coverage of long-term nuclear provisions in advance of the legal June 2016 deadline (set by the "NOME" law) is thus achieved.

The disposal of these financial assets will result in an equivalent reduction in the Group's net indebtedness.

Note 52 Scope of consolidation

Company	Country	Consolidation method at 31/12/2012	% of ownership at 31/12/2012	% of ownership at 31/12/2011	Business sector
FRANCE					
Électricité de France		Parent company	100.00	100.00	G,D,O
Électricité Réseau Distribution France (ERDF)		FC	100.00	100.00	D
RTE Réseau de Transport d'Électricité		EM	100.00	100.00	T
EDF Production Électrique Insulaire		FC	100.00	100.00	G
UNITED KINGDOM					
EDF Energy Plc (EDF Energy)		FC	100.00	100.00	G, O
EDF Energy (UK) Ltd		FC	100.00	100.00	O
EDF Development Company Ltd		FC	100.00	100.00	O
ITALY					
Edison SpA (Edison)		FC	97.40	48.96	G,D,O
Transalpina di Energia SRL (TdE)		FC	100.00	50.00	O
MNTC Holding SRL		FC	100.00	100.00	O
WGRM Holding 4 SpA		FC	100.00	100.00	O
Fenice Qualita' Per L'Ambiente SpA (Fenice)		FC	100.00	100.00	G,D
OTHER INTERNATIONAL					
EDF International SAS	France	FC	100.00	100.00	O
Energie Steiermark Holding AG (Estag)	Austria	PC	25.00	25.00	G,O
EDF Belgium SA	Belgium	FC	100.00	100.00	G
EDF Luminus SA	Belgium	FC	63.53	63.53	G
Usina Termeletrica Norte Fluminense SA (Ute Norte Fluminense)	Brazil	FC	90.00	90.00	G
Ute Paracambi SA	Brazil	FC	100.00	100.00	G
French Investment Guangxi Laibin Electric Power Co, Ltd	China	FC	100.00	100.00	G
Shandong Zhonghua Power Company, Ltd	China	EM	19.60	19.60	G
Datang Sanmenxia Power Generation Co., Ltd	China	EM	35.00	35.00	G
Taïshan Nuclear Power Joint Venture Company, Ltd	China	EM	30.00	30.00	G
EDF Inc.	USA	FC	100.00	100.00	O
Unistar Nuclear Energy LLC	USA	FC	100.00	100.00	G
Constellation Energy Nuclear Group LLC (CENG)	USA	PC	49.99	49.99	G
Budapesti Erömu ZRt (BERT)	Hungary	FC	95.62	95.57	G
EDF DÉMÁSZ ZRt	Hungary	FC	100.00	100.00	G, D, O
Nam Theun 2 Power Company	Laos	EM	40.00	40.00	G
SLOE Centrale Holding BV	Netherlands	PC	50.00	50.00	G
EDF Kraków S.A.	Poland	FC	94.31	94.31	G
EDF Wybrzeze S.A.	Poland	FC	99.77	99.75	G
EDF Polska Cuw	Poland	FC	100.00	75.00	O
EDF Polska Centrala Spolka Z Ograniczona Odpowiedzialnoscia	Poland	FC	100.00	100.00	O
EDF Paliwa Sp. z o.o.	Poland	FC	90.59	-	O
EDF Rybnik S.A. (ERSA)	Poland	FC	97.32	64.85	G
Zec Kogeneracja SA (Kogeneracja)	Poland	FC	48.99	33.40	G, D
Elektrocieplownia Zielona Gora SA (Zielona Gora)	Poland	FC	48.21	32.87	G, D
Stredoslovenska Energetika a.s. (SSE)	Slovakia	PC	49.00	49.00	D
EDF Alpes Investissements SARL	Switzerland	FC	100.00	100.00	O
Alpiq	Switzerland	EM	25.00	25.00	G, D, O, T
Mekong Energy Company Ltd (Meco)	Vietnam	FC	56.25	56.25	G

Consolidation methods: FC = full consolidation, PC = proportional consolidation, EM = equity method.
Business segments: G = Generation, D = Distribution, T = Transmission, O = Other

Company	Country	Consolidation method at 31/12/2012	% of ownership at 31/12/2012	% of ownership at 31/12/2011	Business sector
OTHER ACTIVITIES					
Dalkia Holding	France	EM	34.00	34.00	O
Dalkia International	France	PC	50.00	50.00	O
Dalkia Investissement	France	PC	67.00	67.00	O
EDF Développement Environnement SA	France	FC	100.00	100.00	O
Société pour le Conditionnement des Déchets et Effluents Industriels (SOCODEI)	France	FC	100.00	100.00	O
Cie Financière de Valorisation pour l'Ingénierie (COFIVA)	France	FC	100.00	100.00	O
Société Française d'Ingénierie Électronucléaire et d'Assistance (SOFINEL)	France	FC	55.00	55.00	O
Électricité de Strasbourg	France	FC	88.64	88.82	D
TIRU SA - Traitement Industriel des Résidus Urbains	France	FC	51.00	51.00	O
Dunkerque LNG	France	FC	65.00	65.00	O
EDF Énergies Nouvelles	France	FC	100.00	100.00	G,O
EDF IMMO et filiales immobilières	France	FC	100.00	100.00	O
EDF Optimal Solutions SAS	France	FC	100.00	100.00	O
Société C2	France	FC	100.00	100.00	O
Société C3	France	FC	100.00	100.00	O
EDF Holding SAS	France	FC	100.00	100.00	O
Domofinance SA	France	EM	45.00	45.00	O
CHAM SAS	France	FC	100.00	100.00	O
EDF Trading Limited	UK	FC	100.00	100.00	O
EDF Production UK Ltd	UK	FC	100.00	100.00	O
EDF DIN UK LTD	UK	FC	100.00	100.00	O
Wagram Insurance Company Ltd	Ireland	FC	100.00	100.00	O
Océane Ré	Luxembourg	FC	99.98	99.98	O
EDF Investissements Groupe SA	Belgium	PC	94.80	93.32	O
EDF Gas Deutschland GmbH	Germany	FC	100.00	100.00	O
Friedeburger Speicherbetriebsgesellschat GmbH (Crystal)	Germany	PC	50.00	50.00	O
Southstream Transport AG	Netherlands	EM	15.00	-	T

Consolidation methods: FC = full consolidation, PC = proportional consolidation, EM = equity method.
Business segments: G = Generation, D = Distribution, T = Transmission, O = Other

At 31 December 2012 the percentage of voting rights, which is decisive for assessing control, differs from the Group's percentage ownership for the following entities:

Company	% of ownership at 31/12/2012	% voting rights at 31/12/2012
Edison SpA	97.40	99.48
EDF Rybnik S.A. (ERSA)	97.32	97.36
Zec Kogeneracja SA (Kogeneracja)	48.99	50.00
Elektrocieplownia Zielona Gora SA (Zielona Gora)	48.21	98.40
EDF Paliwa Sp. z o.o.	90.59	100.00
Dalkia International	50.00	24.14
Dalkia Investissement	67.00	50.00
SOFINEL Société Française d'Ingénierie Électronucléaire et d'Assistance	55.00	54.98
EDF Investissements Groupe SA	94.80	50.00

Statutory Auditors' Report on the consolidated financial statements

This is a free translation into English of the Statutory Auditors' report on the consolidated financial statements issued in French and is provided solely for the convenience of English speaking readers.

This Statutory Auditors' report includes information specifically required by French law in such reports, whether qualified or not. This information is presented below the audit opinion on the consolidated financial statements and includes an explanatory paragraph discussing the auditor's assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account balances transactions, or disclosures.

The report also includes information relating to the specific verification of information given in the Group's 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 31 December 2012

To the Shareholders,

Following our appointment as Statutory Auditors by your General Meeting, we hereby report to you, for the year ended 31 December 2012 on:

- the audit of the accompanying consolidated financial statements of Électricité de France S.A. ("the Group");
- the justification of our assessments;
- the specific verification required by law.

The consolidated financial statements have been approved by the Board of Directors. Our role 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, using sample testing techniques or other selection methods, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting policies used and significant accounting estimates made, as well as the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities, and of the financial position of the Group as of 31 December 2012 and of the results of its operations for the year then ended in accordance with IFRS as adopted by the European Union.

Without qualifying our opinion, we draw your attention to the following matters:

- the change in accounting principle described in note 2 on the accounting for actuarial gains and losses related to post-employment benefits;
- the valuation of long-term provisions relating to nuclear electricity production, which results from management's best estimates and assumptions as described in notes 1.3.2.1 and 29 to the consolidated financial statements. This valuation is sensitive to the assumptions made concerning technical processes, costs, inflation rates, long-term discount rates and forecast cash outflows. Changes in these parameters could lead to a material revision of the level of provisioning.

2. Justification of assessments

The preparation of the consolidated financial statements requires the use of accounting estimates, which have been made in an uncertain environment, due to the crisis of public finances affecting certain countries of the Euro zone. This crisis is coupled with an economic and liquidity crisis as well as uncertainties related to commodities and power prices, thus resulting in difficulties to determine the economic outlook. In this context, in accordance with the requirements of article L. 823-9 of the French commercial Code, we have made our own assessments which are brought to your attention, in relation to the following matters:

Accounting policies

We have verified the appropriateness of the disclosures presented in notes 1.3.27.1 with respect to the accounting treatments of greenhouse gas emission quotas, an area which is not mandatory or specifically addressed in IFRS as adopted in the European Union as of 31 December 2012.

Management judgments and estimates

Note 1.3.2 to the consolidated financial statements describes the main sensitive accounting policies for which management makes significant estimates and assumptions and exercises judgment, based on macro-economic assumptions appropriate to the very long-term cycle of Group assets. Particularly, the Group describes in the notes the information related to:

- the obligations regarding the French public distribution of electricity and, particularly, the impact of the changes in estimate related to the useful life of certain assets (notes 1.3.24, 14 and 33);
- the allocation of the cost of the business combination to identifiable assets acquired and liabilities assumed related to Edison in accordance with IFRS 3 revised, and the methodologies and main assumptions being considered for measurement of those assets and liabilities at fair values (note 3.1);

- the methods used to account for the shortfall in the compensation for the Contribution to the Electricity Public Service Costs (*Contribution au Service Public de l'Électricité*) as at 31 December 2012, in view of the agreement reached in January 2013 (notes 4.1, 12.1, 26 and 36.3);
- the impairment charges that have been recognized during the period as well as the main assumptions and indicators of impairment used to test goodwill and long-lived assets (notes 1.3.15 and 13);
- the other provisions and contingent liabilities (notes 32 and 45).

Our procedures consisted in assessing these estimates, the data and assumptions, and as applicable, the legal opinions on which they are based, reviewing, on a test basis, the technical data and calculations performed by the Group, comparing accounting estimates of prior periods 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.

Verification procedures

The procedures we performed in relation to the regulatory framework related to the principle of regulated access to historical nuclear energy *(Accès Regulé à l'Énergie Nucléaire Historique* or ARENH) as established by the NOME Law in France, effective 1 July 2011, are based on the information available from the Group, or released by the Regulatory Energy Commission (*Commission de Régulation de l'Énergie*), and the findings resulting from agreed-upon procedures performed by independent third parties that had access to the underlying transactions.

These assessments were made as part of our audit of the consolidated financial statements taken as a whole and contributed to the opinion we formed which is expressed in the first part of this report.

3. Specific verification

As required by law we have also verified, in accordance with professional standards applicable in France, the information relating 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, 13 February 2013

The Statutory Auditors

KPMG Audit
Department of KPMG S.A.

Deloitte & Associés

Bernard Cattenoz

Jacques-François Lethu

Alain Pons

Patrick E. Suissa

EDF SA's summary annual financial statements at 31 December 2012

Annual financial statements at 31 December 2012

Income statements

(in millions of Euros)	Notes	2012		2011	
SALES (1)			**44,106**		**41,950**
Change in inventories and work-in-progress			5		18
Capitalised production			651		462
Operating subsidies			4,698		3,565
Reversals of provisions, amortisation and depreciation			2,941		2,437
Transfers of charges			83		78
Other operating income			560		647
I TOTAL OPERATING INCOME			**53,044**		**49,157**
Purchases and other external expenses			34,805		32,208
Fuel purchases used - power generation		4,265		3,116	
Energy purchases		12,013		10,696	
Services and other purchases used		18,527		18,396	
Taxes other than Income taxes			2,233		2,609
Based on salaries and wages		145		142	
Energy-related		1,006		1,398	
Other		1,082		1,069	
Personnel expenses			6,238		5,761
Salaries and wages		3,687		3,600	
Social contributions		2,551		2,161	
Depreciation, amortisation and provisions			4,936		3,558
Depreciation and amortisation on fixed assets		2,354		2,100	
Depreciation on fixed assets		9		14	
Depreciation on current assets		204		162	
Provisions for risks and expenses		2,369		1,282	
Other operating expenses			989		1,064
II TOTAL OPERATING EXPENSES			**49,201**		**45,200**
Operating profit (I - II)			3,843		3,957
Joint operations					
III PROFIT ASSIGNED OR LOSS TRANSFERRED			**5**		**8**
IV LOSS CHARGED OR PROFIT TRANSFERRED			**-**		**1**
Income from investments			2,478		1,047
Income from other securities and receivables related to fixed assets			1,039		344
Interest and similar income			408		827
Reversals of provisions and transfers of charges			975		424
Foreign exchange gains			1,953		2,291
Net income on sales of marketable securities			28		79
V TOTAL FINANCIAL INCOME			**6,881**		**5,012**
Financial amortisation and provisions			3,015		3,344
Interest and similar expenses			2,023		2,158
Foreign exchange losses			1,860		2,179
Net charges on sales of marketable securities			1		18
VI TOTAL FINANCIAL EXPENSES			**6,899**		**7,699**
Financial result (V - VI)			(18)		(2,687)
Profit or loss before income taxes and exceptional items (I - II + III - IV + V - VI)			3,830		1,277
VII EXCEPTIONAL RESULT			**196**		**197**
VIII INCOME TAXES			**460**		**356**
PROFIT OR LOSS (I - II + III - IV + V - VI + VII - VIII)			**3,566**		**1,118**

(1) Production of goods for export in 2012: €5,648 million; production of services for export in 2012: €634 million.

Balance sheets

(in millions of Euros)	Notes	31/12/2012 Gross values	31/12/2012 Depreciation or amortisations	31/12/2012 Net values	31/12/2011 Net values
ASSETS					
Intangible assets		**1,119**	**382**	**737**	**693**
Land		117	6	111	110
Buildings		9,228	6,057	3,171	3,227
Technical installations, plant and machinery, equipment and fixtures		59,902	40,063	19,839	18,411
Other tangible assets		1,202	741	461	394
Property, plant and equipment owned by EDF		**70,449**	**46,867**	**23,582**	**22,142**
Land		39	-	39	38
Buildings		9,026	5,737	3,289	3,275
Technical installations, plant and machinery, equipment and fixtures		3,497	1,823	1,674	1,651
Other tangible assets		11	11	-	-
Property, plant and equipment operated under concession		**12,573**	**7,571**	**5,002**	**4,964**
Work-in-progress		7,697	-	7,697	6,769
Advances		1,862	-	1,862	1,368
Tangible assets in progress		**9,559**	-	**9,559**	**8,137**
Intangible assets in progress		**1,165**	-	**1,165**	**1,014**
Investments and related receivables		58,160	795	57,365	52,552
Investment securities		14,750	540	14,210	12,383
Loans and other financial assets		8,568	-	8,568	4,830
Investments		**81,478**	**1,335**	**80,143**	**69,765**
TOTAL I FIXED ASSETS		**176,343**	**56,155**	**120,188**	**106,715**
Raw materials		8,299	14	8,285	7,958
Other supplies		996	162	834	693
Work-in-progress and other		21	-	21	18
Inventories		**9,316**	**176**	**9,140**	**8,669**
Advances on orders		**906**	-	**906**	**796**
Trade receivables and related accounts		13,185	315	12,870	11,653
Other receivables		3,706	2	3,704	6,692
Trade and other receivables		**16,891**	**317**	**16,574**	**18,345**
Marketable securities		8,954	7	8,947	9,049
Cash instruments	4	2,801	-	2,801	2,807
Cash and cash equivalents		3,685	-	3,685	3,194
Prepaid expenses	4	1,335	-	1,335	603
Other current assets		**16,775**	**7**	**16,768**	**15,653**
TOTAL II CURRENT ASSETS		**43,888**	**500**	**43,388**	**43,463**
Deferred charges (III)		**242**	-	**242**	**257**
Bond redemption premiums (IV)		**549**	**82**	**467**	**324**
Unrealised foreign exchange losses (V)		**340**	-	**340**	**295**
TOTAL ASSETS (I + II + III + IV + V)		**221,362**	**56,737**	**164,625**	**151,054**

((in millions of Euros)	Notes	31/12/2012	31/12/2011
EQUITY AND LIABILITIES			
Capital		**924**	**924**
Capital-related premiums			
Share issue premium		7,015	7,015
Merger premium		25	25
Revaluation surplus			
Special reserves - Law of 28 December 1959		655	668
Tax-regulated reserves - Law of 29 December 1976		15	15
Other reserves		**3,000**	**3,000**
Tax-regulated reserves			
Legal reserves		92	92
Retained earnings		**3,713**	**4,286**
Profit or loss for the financial year		**3,566**	**1,118**
Interim dividend		**(1,053)**	**(1,053)**
Investment subsidies		**190**	**171**
Tax-regulated provisions			
Provisions related to depreciable fixed assets (Law of 30 December 1977)		11	14
Excess depreciation		6,312	6,535
Equity	5	**24,465**	**22,810**
Special concession accounts		**1,999**	**1,968**
TOTAL I EQUITY AND CONCESSION ACCOUNTS		**26,464**	**24,778**
Provisions for risks		**681**	**553**
Provisions for expenses			
Renewal of facilities operated under concession		248	238
Back-end nuclear cycle		16,611	15,865
Decommissioning and last cores		15,293	13,854
Employee benefits		10,751	10,594
Other expenses		490	637
TOTAL II PROVISIONS		**44,074**	**41,741**
Bonds and borrowings		48,203	40,093
Advances received on consumption		65	90
Other debts		1,214	1,178
Financial liabilities		**49,482**	**41,361**
Advances and payments on account received		**5,833**	**5,444**
Trade payables and related accounts		7,894	7,793
Tax and social security debts payable		6,626	5,575
Debts related to fixed assets and related accounts		1,538	1,381
Other liabilities		15,947	15,757
Operating, investment and other liabilities		**32,005**	**30,506**
Cash instruments		**2,370**	**1,889**
Deferred income		**4,232**	**5,185**
TOTAL III LIABILITIES		**93,922**	**84,385**
Unrealised foreign exchange gains (IV)		**165**	**150**
TOTAL EQUITY AND LIABILITIES (I + II + III + IV)		**164,625**	**151,054**

Cash flow statements

(in millions of Euros)		2012	2011
Operating activities			
Profit/(loss) before income tax		4,026	1,474
Amortisation, depreciation and provisions		3,746	3,913
Capital (gains)/losses		(6)	(100)
Financial (income) and expenses		(1,995)	(171)
Changes in working capital		(2,270)	(797)
Cash flows from operations		3,501	4,319
Net financial expenses, including dividends received		1,243	(325)
Income taxes paid		(1,173)	(849)
Net cash flow from operating activities	(A)	3,571	3,145
Investing activities			
Purchases of property, plant and equipment and intangible assets		(4,713)	(4,146)
Sales of property, plant and equipment and intangible assets		37	33
Changes in financial assets		(4,860)	(1,639)
Net cash flows used in investing activities	(B)	(9,536)	(5,752)
Financing activities			
Issuance of borrowings and underwriting agreements		9,618	6,168
Repayment of borrowings and underwriting agreements		(2,244)	(2,108)
Dividends paid		(2,125)	(2,122)
Funding contributions received for assets operated under concessions		14	13
Investment subsidies		11	51
Net cash flows from financing activities	(C)	5,274	2,002
Net increase/(decrease) in cash and cash equivalents	(A)+(B)+(C)	(691)	(605)
CASH AND CASH EQUIVALENTS - OPENING BALANCE *		**(3,100)**	**(2,521)**
Effect of currency fluctuations		24	(68)
Financial income on cash and cash equivalents		68	94
CASH AND CASH EQUIVALENTS - CLOSING BALANCE *		**(3,699)**	**(3,100)**

* *"Cash and cash equivalents – opening balance" and "Cash and cash equivalents – closing balance" do not include investment funds, nor negotiable debt instruments maturing in more than three months. Details of the variation in cash and cash equivalents are presented in note 4.*

Contents

Notes to the financial statements

Notes to the financial statements

Électricité de France SA (EDF), the parent company of the EDF group, is a French *société anonyme* operating in electricity generation and electricity and gas supply. EDF also covers all the business activities of Island Energy Systems, IES (located in Corsica and France's overseas departments).

↗ Note 1 Accounting standards

EDF's annual 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 committee) regulation 99-03 of 29 April 1999 with additions in subsequent regulations.

↗ Note 2 Significant events and transactions

The main events and transactions in 2012 with a definite or potential significant impact on the financial statements are as follows.

2.1 Bond issues

EDF received funds from the following bond issues:

- €2 billion from a 10-year bond with annual coupon of 3.875%, on 18 January 2012;
- €1 billion from a 15-year bond with annual coupon of 4.125%, and £500 million from a 25-year bond with annual coupon of 5.5%, on 27 March 2012;
- €2 billion from a 10.5-year bond with annual coupon of 2.75%, on 10 September 2012.

2.2 Takeover of Edison

Once the conditions were fulfilled, on 24 May 2012 the EDF group and its Italian partners finalised the takeover of the energy group Edison. The principles of the final agreement were consistent with the preliminary agreement signed by the parties on 26 December 2011.

For the purposes of this operation, in June 2012 EDF increased the capital of Wagram 4 for the first time, by €845 million, in order to acquire control of Edison by purchasing Delmi's entire investment (50%) in Transalpina Di Energia (TdE).

In compliance with Italian stock market regulations, on 2 July 2012 the EDF Group launched a mandatory tender offer for the remaining Edison shares, at the price of €0.89 per ordinary share. For the purposes of this operation, EDF subscribed a further capital increase for Wagram 4, in the amount of €381 million.

The EDF group holds 97.40% of the capital and 99.48% of the voting rights of Edison at 31 December 2012.

2.3 Flamanville 3

In December 2012, EDF announced that the cost of constructing the Flamanville 3 project was to be revised upwards by €2 billion from the cost (of around €6 billion at constant 2008 values) announced in July 2011. The first marketable electricity output is scheduled for 2016.

In addition to the "lead unit" effect, certain other factors have affected the full cost of construction: changes in the boiler design, additional engineering studies, incorporation of new regulatory requirements and the lessons learned from Fukushima. The revised cost also reflects the additional expenditure associated with industrial contingencies, such as replacement of the supports for the reactor building polar crane and its effect on the work schedule, as well as the financial impact of extending construction deadlines.

2.4 Termination of the global nuclear partnership between EDF and ENEL

In November 2007, EDF and ENEL signed a series of agreements governing cooperation for nuclear operations, under the terms of which ENEL took a 12.5% stake in the Flamanville EPR project.

Given the changes in the economic environment and the project itself, as well as the discontinuation of the Italian nuclear revival programme following the June 2011 referendum, ENEL and EDF announced on 4 December 2012 that they were ending their cooperation. They consequently waived their respective options in each other's programmes, and ENEL withdrew from the Flamanville EPR project with effect from 19 December 2012. EDF therefore reimbursed ENEL's investment in the project, totalling €658 million including penalties. In return, EDF will have full rights to the electricity generated by Flamanville 3.

↗ Note 3 Regulatory events in 2012 with an impact on the financial statements

3.1 Agreement on recovery of deficits related to the CSPE

The Contribution to the Public Electricity Service (*Contribution au Service Public de l'Électricité* or CSPE) is a contribution set by the State and collected directly from the end-user of electricity to compensate for certain public service charges borne by EDF. It is intended to finance the rise in renewable energies, social tariffs and tariff equalisation.

Since 2007, the amount of CSPE collected has been unable to cover these charges, despite a system of regular rises in the CSPE introduced by the French finance law of 2011, and the resulting shortfall was affecting EDF's indebtedness.

Under the agreement reached with the French authorities and announced on 14 January 2013, EDF is to receive reimbursement of the receivable consisting of the CSPE shortfall at 31 December 2012 (€4.3 billion) and the costs of bearing this shortfall for EDF (€0.6 billion). The final amount of the receivable will only be set in 2013 after the deliberations of the French Market Regulator CRE (*Commission de Régulation de l'Énergie*) for recognition of the 2012 public service expenses.

A progressive reimbursement schedule for this €4.9 billion receivable was validated in the agreement. It runs until 2018, and bears interest at market rates (1.72%) which will be included in financial income in EDF's financial statements.

Following conclusion of this agreement, EDF recorded financial income of €0.6 billion at 31 December 2012, and transferred the CSPE receivable from "Other receivables" to "Financial loans and receivables" at an amount of €4.3 billion.

3.2 "NOME" law- European Commission decision

On 12 June 2012 the European Commission announced that subject to conditions, it approved the State aid contained in the regulated electricity tariffs in France. In 2007 the Commission had opened an investigation into the regulated tariffs for sales to business customers (the "yellow" and "green" tariffs and the TaRTAM transition tariff). Since then, France's NOME law on the new electricity market organisation has modified the French legislative and regulatory context by discontinuing the TaRTAM transition tariff, programming the end of the "yellow" and "green" tariffs for the end of 2015 and setting up a scheme for regulated access to nuclear power (named ARENH, for *Accès Régulé à l'Électricité Nucléaire Historique*) for all suppliers of customers located in France.

Following an inquiry, the European Commission concluded that the business tariffs constitute State aid, but are nevertheless compatible with European law provided:

- the ARENH price remains at €42/MWh until the Commission gives approval of the methodology used to set the ARENH price;
- there is a gradual move towards cost-based pricing every year from the summer of 2012, until the "yellow" and "green" tariffs cease to exist at the end of 2015.

This decision marks the end of the European Commission's investigation concerning State aid.

↗ Note 4 Variation in cash and cash equivalents reported in the cash flow statement

(in millions of Euros)	**31/12/2012**	31/12/2011	Change
Marketable securities	8,954	9,050	(96)
Cash and cash equivalents	3,685	3,194	491
Sub-total in balance sheet assets	**12,639**	**12,244**	**395**
Euro investment funds	(3,282)	(2,190)	(1,092)
Negotiable debt instruments (Euro) maturing after 3 months	(1,315)	(2,722)	1,407
Bonds	(3,515)	(2,908)	(607)
Marketable securities - treasury shares	(3)	(3)	-
Accrued interest on marketable securities maturing after 3 months	(53)	(56)	3
Negotiable debt instruments medium and long-term	(394)	(394)	-
Marketable securities included in financial assets in the cash flow statement	**(8,562)**	**(8,273)**	**(289)**
Cash advances to subsidiaries (cash pooling agreements) included in "other operating receivables" in the balance sheet	2	4	(2)
Cash advances from subsidiaries (cash pooling agreements) included in "other operating liabilities" in the balance sheet	(7,778)	(7,075)	(703)
CASH AND CASH EQUIVALENTS, CLOSING BALANCE IN THE CASH FLOW STATEMENT	**(3,699)**	**(3,100)**	**(599)**
Elimination of the effect of currency fluctuations			(24)
Elimination of net financial income on cash and cash equivalents			(68)
NET VARIATION IN CASH AND CASH EQUIVALENTS IN THE CASH FLOW STATEMENT			**(691)**

↗ Note 5 Changes in equity

(in millions of Euros)	Capital	Reserves and premiums	Retained earnings and interim dividends	Net income	Investment subsidies received	Tax-regulated provisions	Total equity
At 31/12/2010	**924**	**10,879**	**3,863**	**1,492**	**127**	**6,734**	**24,019**
Allocation of 2010 net income	-	-	420	(420)	-	-	-
Dividend distribution	-	-	3	(1,072)	-	-	(1,069)
2011 net income	-	-	-	1,118	-	-	1,118
Capital increase on 24/06/2011	6	300	-	-	-	-	306
Capital reduction on 28/09/2011	(6)	(318)	-	-	-	-	(324)
Interim dividend	-	-	(1,053)	-	-	-	(1,053)
Other changes	-	(46)	-	-	44	(185)	(187)
At 31/12/2011	**924**	**10,815**	**3,233**	**1,118**	**171**	**6,549**	**22,810**
Allocation of 2011 net income	-	-	46	(46)	-	-	-
Dividend distribution	-	-	-	(1,072)	-	-	(1,072)
2012 net income	-	-	-	3,566	-	-	3,566
Interim dividend	-	-	(1,053)	-	-	-	(1,053)
Other changes	-	(13)	434	-	19	(226)	214
AT 31/12/2012	**924**	**10,802**	**2,660**	**3,566**	**190**	**6,323**	**24,465**

5.1 Share capital

At 31 December 2012, the share capital amounted to €924,433,331, comprising 1,848,866,662 fully subscribed and paid-up shares with nominal value of €0.50 each, owned 84.4% by the French State, 13.6% by the public (institutional and private investors) and 1.9% by current and retired Group employees, with 0.1% held by EDF as treasury shares.

Article 24 of the law of 9 August 2004 requires the State to hold more than 70% of the capital of EDF at all times.

5.2 Dividends

The General Shareholders' Meeting of 24 May 2012 decided to distribute a dividend of €1.15 per share in circulation in respect of 2011. Interim dividends of €0.57 per share had been paid out on 16 December 2011, and the balance of €0.58 per share amounting to a total of €1,072 million was paid out on 6 June 2012.

On 22 November 2012, the Board of Directors decided to distribute an interim dividend of €0.57 per share in respect of 2012 amounting to a total of €1,053 million, paid out in cash on 17 December 2012.

In keeping with the amendment to the company's articles of association proposed at the General Shareholders' Meeting of 24 May 2011, shareholders who have held their shares continuously for at least 2 years at the year-end date and still hold them at the dividend distribution date are entitled to a 10% increase in their dividends. The number of shares eligible for this increase cannot be more than 0.5% of the company's capital for a single shareholder. This amendment will take effect for the payment in 2014 of the dividend for the year 2013.

5.3 Changes in equity

At 31 December 2012, the €1,655 million increase in equity was attributable to the following:

- €3,566 million of net income for 2012;
- €(1,072) million for the balance of dividend distributions from 2011 net income as decided at the General Shareholders' meeting of 24 May 2012 (€0.58 per share, paid on 6 June 2012);
- €(1,053) million for the interim dividend of €0.57 per share paid in cash from 2012 net income on 17 December 2012;
- €214 million in other changes, including €(226) million in tax-regulated provisions and €431 million impact on retained earnings of the change in accounting method for major plant inspections as of 1 January 2012.

At 31 December 2011, the €1,209 million decrease in equity was attributable to the following:

- €1,118 million of net income for 2011;
- €(1,069) million for the balance of dividend distributions from 2010 net income as decided at the General Shareholders' meeting of 24 May 2011 (€0.58 per share, paid on 6 June 2011);
- €(1,053) million for the interim dividend of €0.57 per share paid in cash from 2011 net income on 16 December 2011;
- €(18) million resulting from the change in the share premium account resulting from operations associated with the public cash or exchange offer for shares in EDF Énergies Nouvelles and cancellation in treasury shares;
- €(187) million in other changes, mainly corresponding to net reversals of €(185) million from tax-regulated provisions.

2012 Management report
Contents

1. Financial and legal information

1.1 Key figures

Pursuant to European regulation 1606/2002 of 19 July 2002 on the adoption of international accounting standards, the EDF group's consolidated financial statements at 31 December 2012 are prepared under the international accounting standards published by the IASB and approved by the European Union for application at 31 December 2012. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and interpretations issued by the SIC and IFRIC.

The Group's accounting policies are presented in note 1 to the consolidated financial statements at 31 December 2012.

The figures presented in this document are taken from the EDF group's consolidated financial statements at 31 December 2012.

The comparative figures for 2011 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits under the options offered by IAS 19 (see note 2 to the consolidated financial statements). In the tables in this management report, these figures are reported as "2011 restated".

One notable event of 2012 was the takeover of the Edison group on 24 May 2012 (for details of the operation see section 1.2.2.1.1). Edison is fully consolidated as of that date, since the EDF group holds 97.40% of the capital and 99.48% of the voting rights in Edison.

The Group's key figures for 2012 are shown in the following table. Variations in value and percentage are calculated with reference to the restated 2011 figures.

Extract from the consolidated income statements

(in millions of Euros)	**2012**	2011 restated	Variation	Variation (%)	Organic growth (%)
Sales	72,729	65,307	7,422	+11.4	+5.8
Operating profit before depreciation and amortisation (EBITDA)	16,084	14,939	1,145	+7.7	+4.6
Operating profit (EBIT)	8,245	8,452	(207)	-2.4	
Income before taxes of consolidated companies	4,883	4,672	211	+4.5	
EDF net income	3,316	3,148	168	+5.3	
Net income excluding non-recurring items [1]	4,216	3,607	609	+16.9	

(1) Net income excluding non-recurring items is not defined by IFRS, and is not directly visible in the consolidated income statements. It corresponds to the Group's share of net income excluding non-recurring items and the net change in fair value on Energy and Commodity derivatives, excluding trading activities, net of tax (see section 1.3.9).

Extract from the consolidated balance sheets

(in millions of Euros)	**31 December 2012**	31 December 2011 restated
Non-current assets	140,279	128,318
Inventories and trade receivables	36,710	34,489
Other assets	55,328	52,287
Cash and cash equivalents, other liquid assets, loans to RTE and joint ventures [1]	17,560	16,184
Assets held for sale (excluding cash)	241	684
TOTAL ASSETS	**250,118**	**231,962**
Equity (EDF share)	25,858	28,483
Non-controlling interests	4,854	4,189
Special concession liabilities	42,551	41,769
Provisions	65,582	58,018
Loans and other financial liabilities [2]	59,135	49,469
Other liabilities	52,089	49,897
Liabilities related to assets classified as held for sale (excluding loans and other financial liabilities)	49	137
TOTAL EQUITY AND LIABILITIES	**250,118**	**231,962**

(1) Including cash and cash equivalents of discontinued operations.
(2) Including hedging derivatives and the financial liabilities of discontinued operations.

Operating cash flow

(in millions of Euros)	2012	2011 restated	Variation	Variation (%)
Operating cash flow [1]	12,314	10,281	2,033	+ 19.8

(1) Operating cash flow is not an aggregate defined by IFRS as a measure of financial performance, and is not necessarily comparable with indicators of the same name reported by other companies. This indicator, also known as Funds From Operations (FFO), is equivalent to net cash flow from operating activities excluding changes in working capital, adjusted for the impact of non-recurring items, less net financial expenses disbursed and income taxes paid.

Details of net indebtedness

(in millions of Euros)	31/12/2012	31/12/2011	Variation	Variation (%)
Loans and financial liabilities	59,932	50,034	9,898	+19.8
Derivatives used to hedge liabilities	(797)	(834)	37	-4.4
Cash and cash equivalents	(5,874)	(5,743)	(131)	+2.3
Liquid assets	(10,289)	(9,024)	(1,265)	+14.0
Loans to RTE and joint ventures	(1,397)	(1,400)	3	-0.2
Net indebtedness of discontinued operations	-	252	(252)	
NET INDEBTEDNESS [1]	**41,575**	**33,285**	**8,290**	**+24.9**

(1) Net indebtedness is not defined in the accounting standards and is not directly visible in the consolidated balance sheets. It 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. The definition of net indebtedness was revised in 2012 and now includes the Group's loans to RTE and joint ventures.

1.2 Economic environment and significant events of 2012

1.2.1 Economic environment

1.2.1.1 Trends in market prices for electricity and the principal energy sources

European energy prices were affected in 2012 by the fall in prices for coal and CO_2 emission rights, and a substantial rise in energy generation from renewable sources in Germany.

1.2.1.1.1 Spot electricity prices in France, the United Kingdom, Italy and Germany[1]

	France	United Kingdom	Italy	Germany
Average baseload price for 2012 (€/MWh)	46.9	55.2	75.5	42.6
Variation in average baseload prices, 2012/2011	-4.1%	+0.3%	+4.6%	-16.6%
Average peakload price for 2012 (€/MWh)	59.4	63.3	85.2	53.4
Variation in average peakload prices 2012/2011	-2.1%	+2.9%	+3.5%	-12.6%

The comments below concern baseload prices.

In **France**, spot electricity prices stood at an average €46.9/MWh, €2.0 MW/h lower than in 2011. The decline is partly attributable to the significant fall in the price of CO_2 emission rights and coal. The increase in imports from Germany, where there was a substantial output of cheap energy from renewable sources, also drive prices downwards.

1. France and Germany: Average previous day EPEXSPOT price for same-day delivery; United Kingdom: Average previous day EDF Trading OTC price for same-day delivery; Italy: Average previous day GME price for same-day delivery.

Prices also showed much higher volatility this year. The spell of cold weather in February caused significant peaks in prices, while the mild temperatures and high output of harnessable energy [1] in the last third of December led to low prices at the end of the year as the supply-demand balance was extremely relaxed, and negative prices were even observed at certain hours. Given this context and the state of its fleet, the EDF group was a purchaser in all negative price hours.

In **Germany**, prices fell markedly to an average €42.6/MWh, down by €8.5 MWh from 2011. Even more than in France, this change is explained by the lower prices for coal and CO_2 emission rights, and most importantly the substantial growth in wind power and photovoltaic power generation, both extensively subsidised by end-users. Consequently, German prices were lower than French prices during most hours of the year.

In the **United Kingdom**, spot electricity prices were stable overall compared to 2011 despite the rise in spot gas prices, at an average €55.2/MWh. The UK's energy mix generally includes a large contribution from Combined Cycle Gas (CCG) plants, but the downturn in prices for coal and CO_2 emission rights resulted in more extensive use of coal-fired plants, to the detriment of CCG plants.

In **Italy**, spot electricity prices rose by 4.6%, principally due to the increase in Italian gas prices.

1.2.1.1.2 Forward electricity prices in France, the United Kingdom, Italy and Germany [2]

	France	United Kingdom	Italy	Germany
Average baseload price for 2012 (€/MWh)	50.6	61.6	73.3	49.3
Variation in average baseload prices, 2012/2011	-9.6%	-1.1%	-1.2%	-12.0%
Forward baseload price at 21 December 2012	47.3	63.2	70.4	45.1
Average peakload price for 2012 (€/MWh)	64.0	69.9	80.8	60.9
Variation in average peakload prices, 2012/2011	-9.2%	-0.6%	-3.7%	-11.7%
Forward peakload price at 21 December 2012	60.3	71.5	78.1	57.0

The comments below concern baseload prices.

European annual contract baseload prices were on average lower than in 2011, due to downward price trends for CO_2 emission rights and coal.

In **France**, the 2012 annual contract baseload price amounted to an average €50.6/MWh, down by 9.6% from 2011. The main factor in this decrease was the lower prices for coal and CO_2 emission rights, and anticipation of moderate consumption levels.

In **Germany**, the baseload annual contract price registered a bigger decline than the French annual contract, to €49.3/MWh. As well as the change in fuel prices, forward contract prices were influenced by the increasing importance in the energy mix of renewable energies, which have zero variable operating costs and are indirectly borne by consumers, thus bringing prices down from the spring onwards. 2012 German annual contract prices were higher than French prices in the first two months of the year, following the trend of the last six months of 2011 after Germany's political decision to withdraw from nuclear power. High photovoltaic power output in March reversed the trend, and the German contract price returned to a lower level than French prices.

In the **United Kingdom**, the 2012 April Ahead contract baseload price, running from 1 April Y+1 to 31 March Y+2, stood at €61.6 MWh, a 1.1% decline caused by falling forward gas prices. However, the decrease in electricity prices was limited by a change in CO_2 regulations: from 1 April 2013 the cost of electricity generation will include a share for CO_2 emissions specific to the UK. This will raise prices by approximately €3/MWh and is already included in the 2013 April Ahead price.

In **Italy**, the baseload annual contract stood at €73.3/MWh, down slightly from 2011, largely due to shrinking demand as a result of the crisis.

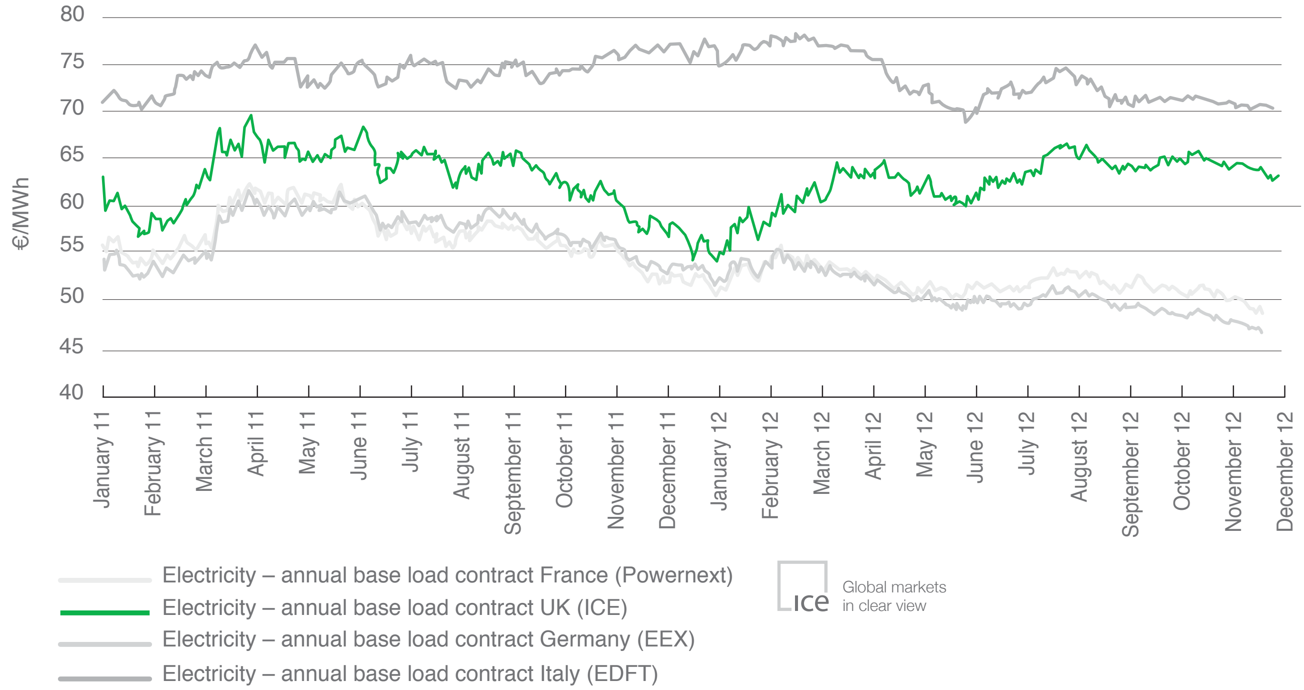
1.2.1.1.3 CO_2 emission rights prices [3]

During 2012, the price of CO_2 emission rights under Phase II (2008-2012) stood at an average €7.5/t for delivery in December 2012, down by €5.8/t from 2011. The price per tonne for CO_2 remained between €6 and €9 throughout the year.

Movements in CO_2 emission rights prices mainly reflected European Commission decisions made to regulate the excess supply of rights, and the economic outlook in Europe. The first negotiations to absorb excess emissions rights, and the wave of cold weather in February, kept the price at €9.5/t at the end of the first quarter. But negotiations aiming to raise prices were unsuccessful, largely because they were blocked by Eastern countries, and as a result the price returned to €6/t. In July, the Commission began further negotiations, this time with the sole aim of changing the timetable for emission rights auctions over the period 2013-2020, so as to limit inflows of rights onto the market in the short term and support prices. A deferral was proposed in November 2012 that would only apply to 900 million tonnes and would not come into force until 2013 after validation by European Commission bodies. These two very cautious decisions were considered disappointing by market actors, as reflected in a continuing decline in CO_2 emission rights prices.

1. *Harnessable power is power generated by any technology affected by weather conditions: wind power, hydropower, and photovoltaic power.*
2. *France and Germany: Average year-ahead EPD price; the last quotations of 2012 were issued on 21 December.*
   Italy: average year-ahead EDFT price;.
   United Kingdom: Average ICE annual contract prices, April 2012 then April 2013 (in the UK, annual contract deliveries take place from1 April to 31 March).
3. *Average ICE prices for the annual contract, Phase II (2008-2012).*

Forward electricity prices in France, the United Kingdom, Italy and Germany



CO_2 emission rights prices (Phase II, 2008-2012)

1.2.1.1.4 Fossil fuel prices[1]

	Coal ($/t)	Oil ($/bl)	Natural gas (p/th)
Average price for 2012	103.1	111.7	64.6
Average price variation, 2012/2011	- 16.7%	+ 0,6%	- 2.7%
Highest price in 2012	118.2	126.2	70.0
Lowest price in 2012	92.7	89.2	59.5
Closing price, 2011	111.9	107.4	63.1
Closing price, 2012	94.1	111.1	65.8

For **coal**, the short term supply-demand balance was very relaxed, largely because of cheap coal imports from Colombia, the US and Russia, and low demand from electricity operators. This situation, combined with a gloomy economic outlook in Europe, was reflected in a fall of nearly 17% in average forward coal prices in Europe between 2011 and 2012. The price per tonne of coal for delivery in 2013 averaged $103.1/t in 2012 and ended the year below $100.

The average European crude **oil** price was comparable to the 2011 level at close to $112/bl, although it showed great volatility over the year. The price per barrel began the year on an upward trend due to fears over supplies, given the threat of potential conflict with Iran, problems in South Sudan and the strike at oil sites in Yemen. In the second quarter, the price per barrel dropped sharply, broadly cancelling out the rise of the first quarter. This drop was mainly driven by concerns about demand following publication of consistently poor macro-economic indicators for Europe, the United States and China. In the summer, the price per barrel increased again following production problems in the North Sea and growing tension with Iran, and it remained at around $110/bl for the rest of the year.

Natural gas prices under the United Kingdom's annual contract were down slightly from 2011 to 64.6p/th, particularly as a result of the relaxed short-term situation. Despite the wave of cold weather in February and the diversion of most LNG towards Asia, gas stocks were replenished rapidly as domestic consumption in the UK was well below normal in the second quarter. Subsequently, prices remained relatively low until early autumn as the outlook for winter was relaxed. Forward gas prices rose significantly when the new annual contract came in at 1 October, since forward prices for 2013-2014 are not greatly affected by the short-term supply-demand balance.

Natural gas and oil prices

1. *Coal: Average ICE prices for delivery in Europe (CIF ARA) for the next calendar year ($/t).*
Oil: Brent first reference crude oil barrel, ICE index (front month) ($/barrel).
Natural gas: Average ICE OTC prices, for delivery starting from October of the following year for the UK (NBP) (p/therm).

1.2.1.2 Electricity[1] and natural gas[2] consumption

Gross electricity consumption in France in 2012 amounted to 489.5 TWh, 2.1% higher than in 2011. This difference is mostly explained by the fact that temperatures were below normal in some months (February particularly, plus April and November) and 0.8°C below 2011 averages, resulting in a 13.7 TWh increase in electricity consumption.

After adjustment for weather effects, the fact that 2012 was a leap year (impact of +1.5 TWh) and the 4.9 TWh decrease in consumption by Eurodif following the permanent closure of this uranium enhancement plant run by Areva in June 2012, electricity consumption in France was stable overall from 2011 to 2012. Lower consumption by industrial and large business customers was offset by higher consumption by small business and residential customers.

Natural gas consumption in France rose by 4.5% in 2012 compared to 2011. This rise is attributable to the intensely cold weather of February 2012, and to a lesser extent, below-normal temperatures in April 2012. After adjustment for weather effects, consumption was down by 4.8%.

Domestic electricity consumption in the United Kingdom in 2012 was estimated at 317.8 TWh, stable since 2011. Gas consumption was estimated at 549.4 TWh, up by 9.7% from 2011, essentially as a result of colder weather conditions than in 2011.

In Italy, estimated domestic electricity and gas consumption was down by 2.8% and 4% respectively from 2011.

1.2.1.3 Electricity and natural gas tariffs

In France, the Finance Minister and the Minister for Ecology, Sustainable Development and Energy issued a decision on 20 July 2012 raising regulated electricity sale tariffs by 2.0% for the "blue" tariff (for residential and small business customers) and the "yellow" and "green" tariffs (for industrial and large business customers). This rise took effect on 23 July 2012.

In application of current laws and regulations, these tariffs must at least cover the costs incurred by historical operators, which the French market regulator CRE considers as accounting costs.

After discussion of the proposal for the above decision on 19 July 2012, the CRE issued the following opinions:

- it was in favour of the proposed decision regarding the green tariffs, which covered costs recorded in 2011 and forecast for 2012;
- it was not in favour of the proposal for the yellow tariffs, as although costs recorded in 2011 were covered, forecast costs for 2012 were not;
- it was not in favour of the proposal for the blue tariffs, which covered neither costs recorded in 2011 nor forecast costs for 2012.

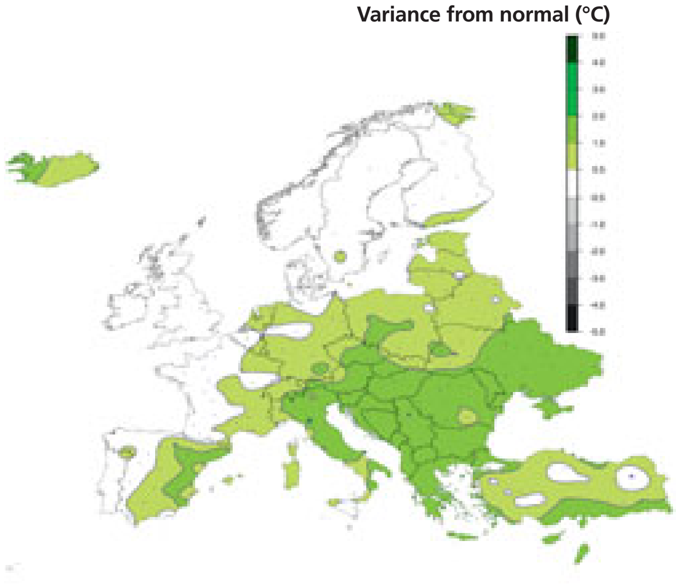
The decisions made by the French Council of State in October and November 2012 on regulated sales tariffs and the TURPE 3 network access are described in sections 1.2.2.4.1.3 and 1.2.2.4.1.4.

In the United Kingdom, EDF Energy reduced its gas tariffs for residential customers by 5% on 7 February 2012 and raised electricity and gas tariffs by 10.8% on 7 December 2012.

In 2011, it had raised its electricity and gas tariffs by 7.5% and 6.5% respectively in March, then again by 4.5% and 15.4% respectively in November.

1.2.1.4 Weather conditions: temperatures and rainfall

Average temperatures: variance from normal levels, January to December 2012[3]



After a mostly mild, dry month of January, there was a wave of significantly cold weather in the first fortnight of February with temperatures 4.6°C lower than normal over the whole month. A mild March followed, then a second quarter with close to normal temperatures. The early summer was cool and overcast across the whole of France, but there was a brief spell of hot weather in August. Finally, December started out cold before registering particularly mild temperatures all over the country.

The average temperatures for 2012 were higher than normal in the eastern half of France and close to normal in the rest of the country, and markedly higher than normal in southern and central Europe.

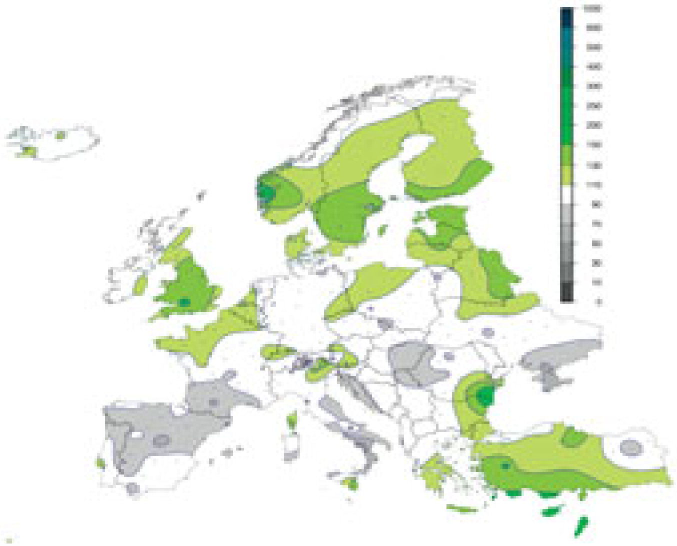
1. *Sources France: RTE, raw and adjusted for weather effects.*
Sources United Kingdom: Department of Energy and Climate Change for the first 3 quarters, local subsidiary estimation for the final quarter.
Sources Italy: local subsidiary estimation.

2. *Sources France: Pégase database, source SOeS* (Service de l'Observation et des Statistiques) *for the first 11 months.*
Sources United Kingdom: Department of Energy and Climate Change for the first 3 quarters, local subsidiary estimation for the final quarter.
Sources Italy: local subsidiary estimation.

3. *Source : Météo France.*
Map comparing average temperatures with normal levels measured over 30 years (1971-2000 for Western Europe and 1961-1990 for Eastern Europe).
Source: Base de Données Climatologiques, *Météo France.*

Rainfall: variance from normal annual levels, January to December 2012[1]

Compared to normal levels (%)



2012 saw contrasting rainfall patterns in Europe; the weather was rather dry in the southern half (excluding Turkey), but normal and surplus rainfall levels were recorded in the northern half, particularly Scandinavia.

In France, the cumulative rainfall was also very different between the north and south: close to normal in the Alps (slightly above normal in the north Alps), with a slight shortfall in the north Massif Central and the south-west quarter of France (southern part of the Massif Central and Pyrenees). Significant variability was observed between:

- February, March and August, which were very dry;
- April, May, October and November (in the eastern half of the country), which were very wet.

Hydropower capacity levels in France were therefore very variable:

- low in February and March and then July, August and September;
- close to normal in May, June and October;
- above average at the end of the year.

It remained approximately 10% below normal over the whole year.

1.2.2 SIGNIFICANT EVENTS[2, 3]

1.2.2.1 New investments and partnerships

1.2.2.1.1 Finalisation of the takeover of Edison

Following fulfilment of the conditions for the operation, on 24 May 2012 the EDF group and its Italian partners finalised the takeover of the energy group Edison. The principles of the final agreement are consistent with the preliminary agreement signed by the parties on 26 December 2011.

The Group thus took control of Edison by purchasing Delmi's entire investment in TdE (50%) for a total of €784 million, corresponding to the negotiated price of €0.89 per Edison share.

Following this acquisition the Group held 78.96% of the capital and 80.64% of the voting rights in Edison.

At the same time as the Group took control of Edison, Delmi took control of Edipower by purchasing the investments in Edipower held by Edison (50%) and Alpiq (20%) for the total sum of €884 million.

Edison and Edipower also signed a long-term (6-year) gas supply contract to cover 50% of Edipower's gas requirements.

In compliance with Italian stock market regulations, on 2 July 2012 the EDF Group launched a mandatory tender offer for the remaining Edison shares, at the price of €0.89 per ordinary share. No offer was made for non-voting shares.

976,306,145 ordinary shares, corresponding to a total of €869 million, were tendered to the offer by minority shareholders by the closing date of 6 September 2012. The additional cost of raising this offer price from the €0.84 envisaged in the preliminary agreement of 26 December 2011 – a total increase of €48 million – was borne in equal shares by the EDF group and Delmi.

Between 2 and 30 November 2012, an offer was also made to Edison minority shareholders to convert their "saving shares", which carry no voting rights, into ordinary shares. As a result of this offer, 437,573 non-voting shares were converted into ordinary shares.

After the mandatory tender offer and the conversion offer for non-voting shares, the EDF group holds 97.40% of the capital and 99.48% of the voting rights of Edison at 31 December 2012.

1.2.2.1.2 Takeover of Photowatt's business and PV Alliance

On 27 February 2012, the Vienne Commercial Court in France accepted the EDF group's offer for the activities of Photowatt. This operation and the concurrent operation involving the CEA (French atomic energy commission), enabled the Group, via its subsidiary EDF Énergies Nouvelles Réparties, to take over Photowatt's assets and 100% of its subsidiary PV Alliance, and to obtain a world exclusivity licence for the heterojunction technology currently in development.

1.2.2.1.3 Acquisition of Enerest

On 1 April 2012, Électricité de Strasbourg acquired 100% of Enerest, owner of the Gaz de Strasbourg brand and the longstanding gas supplier to the economic region of Strasbourg. The acquisition price was €139 million.

1.2.2.1.4 Renegotiation of gas supply contracts by Edison

During the second half of 2012, the Court of Arbitration of the ICC (International Chamber of Commerce) ruled in favour of Edison in the litigations over price revisions for the long-term natural gas supply contracts with Rasgas (Qatar) and ENI (Libya). This generated a positive impact of €680 million, which is included in the EDF group's EBITDA for 2012.

An arbitration procedure is still in progress concerning the natural gas supply contract with Sonatrach (Algeria). The ruling is expected in 2013.

1. *Map comparing average rainfall with normal levels between January and December 2012. Normal rainfall is measured over 30 years (1971-2000 for Western Europe and 1961-1990 for Eastern Europe). Source: Base de Données Climatologiques, Météo France.*
2. *Significant events related to litigation are described in section 1.9.*
3. *The reference document and a full list of press releases are available from the EDF website: www.edf.com.*

1.2.2.1.5 Termination of the overall nuclear partnership between EDF and ENEL

In November 2007, EDF and ENEL entered into a series of agreements governing a partnership for nuclear activities, with Enel taking a 12.5% investment in the Flamanville 3 EPR.

Given the changes in the economic environment and the project itself, as well as the discontinuation of the Italian nuclear revival programme following the June 2011 referendum, EDF and Enel announced on 4 December 2012 that they were ending their partnership. They consequently waived their respective options in each other's programmes, and Enel withdrew from the Flamanville EPR project with effect from 19 December 2012. EDF has reimbursed Enel's investment in the project totalling €658 million (principal plus penalties) and in return, has recovered full rights to the electricity generated by Flamanville 3.

1.2.2.1.6 Partial acquisition by EDF Énergies Nouvelles of Iberdrola's wind farms

On 31 December 2012 EDF Énergies Nouvelles undertook a commitment to acquire 20% of Iberdrola's 32 onshore wind farms in operation in France, for total installed power of 321.4 MW. On 2 January 2013 these infrastructures were sold for the total sum of €350 million to a consortium that also includes General Electric and the German financial group Re, each holding a 40% share.

1.2.2.1.7 Sale of some of EDF Énergies Nouvelles wind farms

The principal sales by EDF Énergies Nouvelles in 2012 as part of its Development and Sale of Structured Assets business were of 50% of the Lakefield wind farm (totalling 205 MW) and the Spearville wind farm (100 MW) in the United States, and the Lac Alfred and Massif du Sud wind farms (each 75 MW) in Canada.

1.2.2.1.8 Sale of the investment in Exelon

On 11 January 2013 EDF announced that it had sold its entire non-strategic 1.6% investment in NYSE-listed company Exelon (EXC.N) at the end of 2012. This transaction took place for an amount of approximately $470 million, corresponding to an average selling price of $34.70 per share i.e. an 18.6% premium on Exelon's latest closing share price at 10 January 2013.

1.2.2.2 Investment projects

1.2.2.2.1 France

1.2.2.2.1.1 Flamanville 3

In December 2012 EDF announced a revised cost for constructing the Flamanville EPR, adjusted upwards by €2 billion from the cost announced in July 2011 (approximately €6 billion$_{2008}$). Output of the first KWhs for the market is scheduled for 2016.

In addition to the "lead unit" effect, certain factors have also affected the full cost of construction, including changes in the boiler design, additional engineering studies, incorporation of new regulatory requirements and the lessons learned in the wake of Fukushima. The revised cost also reflects the additional expenditure associated with industrial contingencies, such as replacement of the supports for the reactor building polar crane and its effect on the work schedule, with the financial impact of extending construction deadlines.

Significant milestones were reached at the Flamanville EPR site in 2012:

- construction of the north diesel building;
- installation of the brackets for steam generators and primary pumps in the reactor building;
- completion of principal civil engineering work for the four safeguard buildings;
- the intake canal for the pumping station came on stream;
- start of installation of the filter drums for the pumping station to filter cooling water.

At 31 December 2012 the civil engineering work was 94% complete, and 39% of the electro-mechanical equipment was in place.

1.2.2.2.1.2 Successful bid for French offshore wind farms

On 6 April 2012, the European consortium headed by the EDF group won the tender for French offshore projects at Saint-Nazaire, Courseulles-sur-Mer and Fécamp. These projects total around 1,500 MW in new capacities to be installed after 2015. They are accompanied by an ambitious industrial project that will create some 7,500 direct and indirect jobs, notably for production of Alstom's Haliade 150 wind turbine in France.

1.2.2.2.1.3 Inauguration of the Martigues Combined Cycle Gas (CCG) plant

On 12 November 2012, EDF inaugurated the first CCG facility at the Martigues site. The Combined Cycle Gas turbine (CCGT) is an excellent solution to problems posed by fluctuating demand, and is environmentally friendly and energy-efficient. The generation unit runs on natural gas and is now capable of delivering up to 465 MW of electricity at full capacity to the electricity grid of France's Provence-Alpes-Côte d'Azur region. The Martigues CCG facility is the second of its kind to be operated by the EDF Group in France and the first to be built by "repowering", i.e. transforming parts of an existing facility, like the steam turbine, to combine it with a new unit comprising a combustion turbine and an exhaust-recovery boiler. A second CCGT with the same capacity is currently under construction at the Martigues site and will be commissioned during 2013.

1.2.2.2.2 United Kingdom

1.2.2.2.2.1 Extension of operating lifetimes of nuclear plants in the United Kingdom

EDF Energy expects to extend the operating lifetimes for all its Advanced Gas-cooled Reactor (AGR) nuclear plants, by an average seven years more than the period forecast when the Group took over British Energy in January 2009. This extension has a direct impact on the depreciation period for these reactors.

EDF Energy announced on 4 December 2012 that it was extending the operating life of two of its nuclear power stations, Hunterston B and Hinkley Point B, by seven years. These two plants will remain in operation until at least 2023.

1.2.2.2.2.2 Key advances in the Hinkley Point C project

On 26 November 2012, the Office for Nuclear Regulation (ONR) announced that it had granted a nuclear site licence to NNB Generation Company, the entity set up by EDF Energy, to build a new double EPR power plant at Hinkley Point C in Somerset.

On 13 December 2012, the UK authorities approved EDF and Areva's design for the EPR. The ONR and the Environment Agency considered that the reactor met the vital criteria as regards security and environmental impact.

The Energy Bill including the "Contract for Difference" (CFD) – whose mechanism is explained in § 1.2.2.4.3 – is a key milestone for the project and the implementation of the reforms it introduces is expected in 2013-2014. As such an Investment Contract (an early form of CFD) is being negotiated with the Department of Energy and Climate Change for HPC. The conclusion of these discussions remains a key step for the HPC Final Investment Decision (FID).

1.2.2.2.3 Other international

1.2.2.2.3.1 Installation of the EPR Unit 1 reactor pressure vessel and Unit 2 dome at Taishan

Construction of the two EPRs at Taishan in China, coordinated by teams from EDF, CGNPC (China Guangdong Nuclear Power Company) and Areva, reached further key milestone in 2012.

In early June 2012 the pressure vessel was lowered into the Unit 1 reactor, then installed in its final position in the reactor pit. This operation marked the start of work to install the nuclear steam supply system, alongside installation of auxiliary equipment and systems.

In September 2012, the site's owner and future operator, Taishan Nuclear Power Joint Venture Company (TNPJVC), successfully installed the dome of the Unit 2 reactor building.

1.2.2.2.4 Other activities

1.2.2.2.4.1 EDF Énergies Nouvelles gains positions on the Moroccan and South African markets

On 16 April 2012, the consortium headed by EDF Énergies Nouvelles, in partnership with the Japanese group Mitsui & Co, was selected as the "preferred bidder" for the 150 MW Taza wind power project by Morocco's National Electricity Office. EDF Énergies Nouvelles also announced that it was to form a local subsidiary, EDF EN Maroc, to lead its development in Morocco.

On 31 May 2012, EDF Énergies Nouvelles was also named the "preferred bidder" by the South African energy department for three wind power projects allocated as part of the second round of renewable energy tenders in South Africa, which was launched in August 2011. Representing total power of 104 MW, the projects at Chaba (20.6 MW), Waainek (23.3 MW) and Grassridge (59.8 MW) are located in the Eastern Cape province of South Africa. They will be equipped with Vesta turbines, each with 3 MW unit capacity. Construction is due to start in 2013, with commissioning by the end of 2014.

1.2.2.2.4.2 Commissioning of wind farms in North America

In 2012, EDF Énergies Nouvelles consolidated its positions in North America, where several wind farms started operation during the second half-year: Spearville 3 (100.8 MW) in Kansas, Spinning Spur (161 MW) then Bobcat Bluff (150 MW) in Texas, Pacific Wind (140 MW) and Shiloh IV (102.5 MW) in California. In Canada, a first wind farm was also opened in October 2012 in Quebec province with installed power of 80 MW.

1.2.2.2.4.3 Commissioning of 3 new solar power plants in France

During the second half of 2012, EDF Énergies Nouvelles commissioned 3 new solar power plants in France: Crucey, in the Centre region, in September 2012, Massangis in Burgundy in October 2012 and Toul-Rosières in Lorraine in November 2012.

These plants have been developed and created by EDF Énergies Nouvelles France. They are equipped with new-generation "thin layer" solar panels and have installed power of 60 MWp, 56 MWp and 115 MWp respectively.

1.2.2.2.4.4 Launch of Electranova Capital

On 15 May 2012, EDF announced that it had joined forces with Idinvest Partners, a reputed specialist in small business funding, to create a venture capital fund called Electranova Capital, endowed with a minimum investment capacity of €60 million, including €30 million contributed by EDF and €10 million by Allianz. The fund will finance innovative young companies in the energy sector, in France and throughout Europe, by taking minority shareholdings in order to rise to the challenge of a low-carbon energy model.

Electranova Capital made its first two investments in October 2012, in the following companies:

- the French company Actility, specialising in intelligent networks;
- the Norwegian company Seatower, which specialises in foundation for offshore wind turbines that respect the marine ecosystem.

1.2.2.2.4.5 Foundation stone laid for the Dunkirk LNG terminal

Construction of the Dunkirk LNG terminal is managed by the subsidiary Dunkerque LNG, with the work contracted out to three consortiums. Technical progress is on schedule and the following has already been completed:

- civil engineering work for the tunnel connecting the Gravelines plant to the terminal has begun; ultimately the plant's tepid water will be used for regasification of the LNG;
- work has started on construction of the concrete casing for the three LNG tanks.

The site was inaugurated on 5 October 2012 by Henri Proglio.

The two operators of the Belgian and French natural gas network also began to build a new interconnection between France and Belgium.

1.2.2.2.4.6 Start of construction of the Southstream gas pipeline

On 7 December 2012, Gazprom launched construction work for the Southstream gas pipeline, which will bring Russian gas to the European Union from 2015. The pipeline is 3600 km long and should carry 63 billion m^3 of gas (700 TWh) a year through the Black Sea and the Balkans. EDF is a 15% stakeholder in the undersea section, along with Gazprom (50%), Eni (20%) and Wintershall (15%).

1.2.2.3 Accreditations

1.2.2.3.1 New accreditation for EDF: the FTSE4Good Index

On 12 March 2012, following an in-depth independent analysis and examination of social, environmental and nuclear safety criteria, the FTSE4Good Policy Committee approved the EDF group's admission to the prestigious FTSE4Good index. EDF is now one of five nuclear operators worldwide that meet the stringent criteria developed and monitored by the FTSE4Good Policy Committee. These criteria are designed to identify and measure the performance of companies that work for sustainable environmental protection, develop positive relations with all stakeholders and strive to promote human rights and their enforcement.

1.2.2.3.2 Two distinctions for the Group's expertise in training

The EDF Corporate University for Management, which caters for the Group's 12,000 managers, has won the 13th Corporate University Xchange Prize for Excellence and Innovation, a global benchmark in terms of corporate learning. This distinction was awarded for a training programme carried out with the Toulouse School of Economics' Institute of Industrial Economics for the leaders of ERDF, a subsidiary of the EDF group. The programme focused on the economics of local concession mechanisms in the electricity distribution industry.

A few weeks earlier, the Group's training expertise had already received the international Corporate Learning Improvement Process accreditation.

1.2.2.4 Regulatory environment

1.2.2.4.1 France

1.2.2.4.1.1 The NOME law and the ARENH system

On 12 June 2012, the European Commission announced that subject to conditions, it approved the State aid contained in the regulated electricity tariffs in France. In 2007, the Commission had opened an investigation into the regulated tariffs for sales to business customers (the "yellow" and "green" tariffs and the TaRTAM transition tariff). Since then, France's NOME law on the new electricity market organisation modified the French legislative and regulatory context by discontinuing the TaRTAM transition tariff, programming the end of the yellow and green tariffs for the end of 2015 and setting up a scheme for regulated access to nuclear power (named ARENH, for *Accès Régulé à l'Électricité Nucléaire Historique)* for all suppliers of customers located in France from 1 July 2011, at the price of €42/MWh for 2012.

The first ARENH supplies to EDF's competitors represent an annual volume of some 61 TWh. The annual volume cannot exceed 100 TWh, and will be progressively increased from 1 January 2014 by the amounts sold to network operators to compensate for technical losses, according to a timetable set by government decision.

The ARENH price, currently set at €42/MWh, will later represent the economic conditions of generation by the existing nuclear fleet, in application of a decree stipulating the costs making up the ARENH price that is to be published no later than 7 December 2013.

1.2.2.4.1.2 CSPE

The Contribution to the Public Electricity Service (*Contribution au Service Public de l'Électricité* or CSPE) is intended to compensate for certain public service charges assigned to EDF in particular.[1] The CSPE is based on electricity consumption and collected directly from the end-user. The amended Finance Law of July 2011 departed from the schedule for CSPE rises, splitting the €3/MWh increase for 1 January 2012 so that it applied half from 31 July 2011 and half from 1 July 2012. A €1.5/MWh rise was thus introduced on 1 July 2012, bringing the CSPE to €10.5/MWh.

Since then it has been increased be €3/MWh to €13.5/MW.

A decree of 6 March 2012 introduced automatic attribution of social electricity tariffs (financed by the CSPE). 1,083,000 French households benefited from social tariffs in 2012, compared to only 600,000 households in 2011.

In June 2012, the French Court of Accounts remitted a report on the CSPE to the Senate investigative committee examining the true cost of electricity. The Court observed the current and future increase in public service expenses. It noted that the expenses borne by EDF (cost of bearing the shortfall and managing purchase obligations) are not covered by the system and acknowledged that the request for formal recognition of these costs was "not economically unfounded". It identified areas for reflection to limit the impact of future rises in the CSPE for electricity consumers: for example, broadening financing of the system to other energies, use of other sources of electricity-generated income, and revision of the current exemption rules.

Since 2007, CSPE income has been unable to cover EDF's public electricity service expenses, which have been steadily rising, primarily due to the higher volumes of wind power and solar power purchased under the purchase obligation scheme. As the costs borne by local distribution companies and Electricité de Mayotte are fully compensated, the shortfall is borne solely by EDF, leading to recognition of a €5.2 billion receivable in its 2012 financial statements (an increase of €1.4 billion from the €3.8 billion recorded in 2011).

EDF's expenses to be compensated by the CSPE rose from €3.6 billion in 2011 to €4.7 billion in 2012, while the CSPE collected amounted to €2.5 billion in 2011 and €3.3 billion in 2012.

The expenses for 2012 comprise €3.2 billion in excess costs for purchase obligations in mainland France, €1.4 billion for non-interconnected zones, and €0.1 billion in solidarity charges.

The rise in these expenses for EDF is explained by a higher level of excess costs for purchase obligations in mainland France (€0.8 billion) and an increase in costs for the non-interconnected zones (€0.2 billion).

Purchase obligations mainly rose as a result of volume effects: wind power output was up by 3 TWh from 2011 causing a rise of €0.1 billion, and photovoltaic power output was up by 2 TWh causing a rise of €0.8 billion.

On 14 January 2013 EDF announced that it had reached an agreement with the French authorities for reimbursement of the receivable resulting from the shortfall in CSPE income at 31 December 2012 (around €4.3 billion, a figure that will be adjusted before 31 December 2013 to reflect the amount of deficits related to public service charges as confirmed by the CRE) and the costs of bearing this shortfall for the Group (€0.6 billion). The agreement sets a progressive payment schedule such that the total receivable of some €4.9 billion plus interest at market rates will be totally reimbursed by 31 December 2018.

As a result of this agreement, the Group recorded financial income of €0.6 billion at 31 December 2012, corresponding to the past cumulative costs of bearing the deficit at that date.

1.2.2.4.1.3 Electricity sales tariffs

The French Council of State issued a decision on 22 October 2012 at the request of SIPPEREC, cancelling its decision of 13 August 2009 setting regulated electricity sales tariffs. The Council of State required the ministers of energy and the economy to issue a new decision within three months to set regulated sales tariffs for the period 15 August 2009 to 13 August 2010. At the date of publication of this report, a proposed decision had been sent to the CRE for examination.

1.2.2.4.1.4 TURPE 3 network access tariffs

In a decision of 28 November 2012, the Council of State cancelled the TURPE 3 network access tariff (*Tarifs d'Utilisation des Réseaux Publics d'Électricité*) which had been approved on 5 May 2009 by the ministers of energy and the economy, after a proposal from the CRE. This decision requires a new version of the TURPE 3 to be set by 1 June 2013, does not change the regulated tariffs for sales to customers. The new version of the TURPE 3 – which will apply retroactively to the period 2009-2013 and will replace the cancelled tariff – will be proposed by the CRE to the competent ministers. The new tariff decision is currently in preparation (see section 1.9.2.1).

1.2.2.4.1.5 Application decree for article 225 of the "Grenelle 2" law

The French government published the application decree for article 225 of the "Grenelle 2" law on 26 April 2012, making reporting of labour, environmental and social information in the management report mandatory for companies with a workforce of over 500 and a balance sheet total or total net sales of more than €100 million. A decision defining requirements for auditing of this nonfinancial reporting by an independent organisation should be issued in 2013. This audit requirement will complement the Group's voluntary decision to have a selection of quantitative indicators verified, applied since 2007.

The EDF group has assessed the impact of this decree and decision for its overall organisation, but also for the French subsidiaries concerned (Électricité de Strasbourg and ERDF). This analysis, in addition to the assessments carried out in 2011, provided an opportunity for the Group to check the compliance of its existing system, set up several years ago, and make any necessary improvements starting with the 2012 management report.

1. *Local distribution companies and Électricité de Mayotte also make small contributions to the system.*

1.2.2.4.1.6 Compliance with ASN recommendations concerning the nuclear fleet

Following the recommendations put forward by the French nuclear safety authority ASN on 28 June 2012 as part of its additional safety assessments, EDF confirms its commitment to carrying out work to reinforce the safety level at its nuclear facilities. This work on its nuclear fleet is part of the Group's overall investment programme for the period to 2015.

EDF has already begun an action plan in accordance with the ASN's technical recommendations, including for example:

- introduction of the rapid response nuclear task force (*Force d'Action Rapide du Nucléaire* – FARN) capable of intervening in an emergency. At 31 December 2012, this task force can take action at any French nuclear reactor in difficulty, and by the end of 2015 up to 6 simultaneous interventions will be possible;
- development of local crisis centres to manage extreme events;
- the tender process for production of emergency diesel generators.

1.2.2.4.2 Belgium

The regulatory environment changed substantially in Belgium in 2012, affecting EDF Luminus in several ways.

The nuclear tax levied on nuclear operators in Belgium increased from €250 million in 2011 to €550 million in 2012, resulting in a €15 million increase in EDF Luminus' share.

The Belgian government brought in a new energy market regulation through the law of 29 March 2012, freezing indexed rises in variable parameters contained in gas and electricity contracts for 9 months from 1 April 2012. This regulation affected EDF Luminus in 2012, particularly in the second half-year.

The royal decision of 29 March 2012 reduced the State contribution to the costs of energy sellers by applying social tariffs for electricity to their customers.

The national regulator CREG [1] approved the new tariffs for Elia, the electricity transmission network operator, for the period 2012-2015. These include a grid injection tariff that is now borne by generators.

On 4 July 2012, the Belgian government decided to shut down the Doel 1 and Doel 2 nuclear plants (in which EDF has no investments) in 2015, and to extend operation of the Tihange 1 plant until 2025, under the plan for secure electricity supplies presented by the Belgian Secretary of State for Energy. The Belgian Council of Ministers has also planned to make 1,000 MW of nuclear power available on the market, to increase competition between suppliers and achieve the lowest possible prices for consumers and business users.

Also, during the summer of 2012, inspections of the core tanks at Doel 3 and Tihange 2 detected micro-cracks and were shut down while awaiting additional analyses by the Federal Nuclear Control Agency (AFCN) and Electrabel. Once the AFCN has issued its conclusions, the Belgian government will decide whether to bring these power plants back online during the first half of 2013.

1.2.2.4.3 United Kingdom

On 22 May 2012, British minister for Energy and Climate Change, presented a draft bill for a law on electricity market reform intended to attract around £110 billion (€136 billion) of investments in nuclear power and renewable energies over ten years. The chief innovation in this reform is the introduction of "contracts for difference" (CFD), a contractual mechanism intended to guarantee an economic balance between new low-carbon electricity generation methods, comprising renewable energies (wind power, solar power, biomass, etc) and nuclear power plants. If it decided to invest in the Hinkley Point C project, EDF would be compensated for selling electricity generated by the new reactors below an agreed price, and conversely would repay the surplus if it sold electricity at a higher price.

This bill was presented to the Chamber of Commons on 29 November 2012.

1.2.2.4.4 Hungary

An amendment to the law on electricity adopted on 16 March 2011 ended all support for cogeneration in Hungary from July 2011, and stipulated that heat tariffs would now be regulated. The price must now be set by the Hungarian government after proposal by the regulator, and is no longer freely negotiated between suppliers and their customers. This amendment particularly affected BE ZRt.

After a transitional period in the final quarter of 2011, new more favourable heat tariffs were published from 1 January 2012. These tariffs are sufficient to cover the associated costs. On 31 October 2012, a new decree was published, introducing an average rise in heat tariffs with a positive impact for BE ZRt in 2012.

1. *CREG:* Commission de Régulation de l'Électricité et du Gaz en Belgique.

1.3 Analysis of the business and the consolidated income statements for 2012 and 2011

Presentation and analysis of the consolidated income statements for 2011 and 2012 is presented on two levels for sales and EBITDA: a first focusing on the Group, then a second examining the different business segments (France, United Kingdom, Italy, Other international and Other activities). EBIT (operating profit) and net income are analyzed from a more general standpoint.

Edison figures are fully consolidated from the takeover of Edison.

The comments below are based on comparisons with the figures for 2011 after restatement for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits.

(In millions of Euros)	**2012**	2011 restated
Sales	**72,729**	**65,307**
Fuel and energy purchases	(37,098)	(30,195)
Other external expenses	(10,087)	(9,931)
Personnel expenses	(11,624)	(10,802)
Taxes other than income taxes	(3,287)	(3,101)
Other operating income and expenses	5,451	3,661
Operating profit before depreciation and amortisation (EBITDA)	**16,084**	**14,939**
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	(69)	(116)
Net depreciation and amortisation	(6,849)	(6,285)
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(164)	(221)
(Impairment)/Reversals	(752)	(640)
Other income and expenses	(5)	775
Operating profit (EBIT)	**8,245**	**8,452**
Financial result	**(3,362)**	**(3,780)**
Income before taxes of consolidated companies	**4,883**	**4,672**
Income taxes	(1,586)	(1,336)
Share in income of associates	260	51
GROUP NET INCOME	**3,557**	**3,387**
Net income attributable to non-controlling interests	241	239
EDF NET INCOME	**3,316**	**3,148**
Earnings per share ***(in Euros)***	**1.80**	**1.70**
Diluted earnings per share ***(in Euros)***	**1.80**	**1.70**

1.3.1 Sales

Consolidated sales rose by 11.4%, with organic growth of 5.8%.

1.3.1.1 Change in group sales

(In millions of Euros)	**2012**	2011 restated	Variation	Variation (%)	Organic growth (%)
Sales	72,729	65,307	7,422	+11.4	+5.8

Sales amounted to €72,729 million in 2012, an increase of €7,422 million (+11.4%) from 2011. Excluding the effects of exchange rates (€674 million), principally reflecting the pound sterling's rise against the Euro, and excluding changes in the scope of consolidation (€2,983 million) essentially relating to the takeover of Edison, organic growth stood at +5.8%.

1.3.1.2 Change in sales by segment

(In millions of Euros)	**2012**	2011 restated	Variation	Variation (%)	Organic growth (%)
France	**39,120**	**37,171**	**1,949**	**+5.2**	**+5.2**
United Kingdom	9,739	8,568	1,171	+13.7	+6.4
Italy	10,098	6,552	3,546	+54.1	+10.8
Other International	7,976	7,501	475	+6.3	+5.5
Other activities	5,796	5,515	281	+5.1	+2.8
Total excluding France	**33,609**	**28,136**	**5,473**	**+19.5**	**+6.5**
GROUP SALES	**72,729**	**65,307**	**7,422**	**+11.4**	**+5.8**

Sales outside France represented 46.2% of total consolidated sales in 2012, compared to 43.1% in 2011.

1.3.1.2.1 France

Change in sales in the "France" segment

France's contribution to Group sales amounted to €39,120 million, corresponding to an organic rise of 5.2% compared to 2011.

This sales growth mainly results from the higher volumes sold of both electricity (+7.2 TWh) and gas (+2.9 TWh) generating an additional €1 billion, and the increase in prices and tariffs for electricity (in July 2011 and July 2012) and gas, which had an impact of €670 million. The progression in electricity sales volumes was driven by residential customers, due to the colder weather (+13 TWh compared to 2011), whereas consumption by industrial customers was down.

At 31 December 2012, EDF's share of the electricity market for all final customers was 80.0%, 0.2 points lower than at 31 December 2011. EDF's share of the natural gas market was 4.3%, up by 0.7 points from 2011.

Breakdown of sales for the "France" segment between deregulated activities[1], network activities[2] and island activities[3]

(In millions of Euros)	**2012**	2011 restated	Variation	Variation (%)
Sales	39,120	37,171	1,949	+5.2
Deregulated activities	37,001	35,270	1,731	+4.9
Network activities	13,309	12,254	1,055	+8.6
Island activities	907	862	45	+5.2
Eliminations	(12,097)	(11,215)	(882)	

The 4.9% increase in sales by the deregulated activities is primarily attributable to the favourable impact of the increase in volumes, chiefly resulting from weather conditions.

Sales by the network activities rose by 8.6% due to the combined effect of the rise in tariffs and the higher volumes sold since the winter weather was harsher in 2012 than 2011.

1. *Generation, supply and optimisation in mainland France, and sales of engineering and consulting services.*
2. *Network activities only include Distribution from 2011, as a result of application of the equity method to the Transmission activity from 31 December 2010. In mainland France, network activities are regulated via the network access tariff TURPE* (Tarifs d'Utilisation des Réseaux Publics d'Électricité). *Sales for the regulated activities include the delivery cost included in integrated Tariffs.*
3. *EDF's generation and distribution activities in the island energy systems (IES).*

Electricity generation

Nuclear generation produced 404.9 TWh in 2012, compared to 421.1 TWh for 2011, down by 16.2 TWh. This contraction is explained by extended scheduled shutdowns in 2012 due to technical reasons, inspections and additional work during the outages and exceptionally low demand at the end of the year when the weather was particularly mild. The availability coefficient was 79.7% in 2012, 1 point lower than in 2011.

Hydropower output stood at 34.5 TWh, an improvement from 2011 (+7.7 TWh) due to the much less unfavourable water availability levels (for a description of weather conditions see section 1.2.1.4).

Fossil-fired generation produced 14.9 TWh, 3.1 TWh more than in 2011. This rise is mainly attributable to the differential between electricity and fossil fuel prices which was more favourable for fossil-fired generation, especially during the wave of cold weather in February 2012.

Sales volumes to final customers (a market segment that includes Eurodif and local distribution companies) were up by +7.2 TWh, including +13 TWh attributable to temperature differentials. A volume of 60.8 TWh of electricity was supplied under the NOME law.

EDF was a net purchaser of 25.4 TWh on the wholesale markets in 2012, corresponding to a 18.1 TWh increase in net volumes purchased.

1.3.1.2.2 United Kingdom

The **United Kingdom's** contribution to Group sales amounted to €9,739 million in 2012, up by 13.7% from 2011 with organic growth of 6.4%. Compared to 2011 sales, this includes a favourable exchange effect of €626 million.

Business benefited from favourable price effects driven by rising wholesale prices in all segments.

However, UK sales incorporate unfavourable volume effects resulting from lower sales to business customers against aggressive competition, and structured sales following expiry of the legacy contracts transferred from British Energy. This downturn was partly counterbalanced by a rise in gas and electricity volumes sold to domestic customers, especially due to growth in the number of customer accounts, and favourable weather effects.

1.3.1.2.3 Italy

Italy[1] contributed €10,098 million to consolidated sales, up by 54.1% with organic growth of 10.8%.

Sales by Edison registered organic growth of €721 million.

In the electricity business, sales benefited from an increase in electricity prices that was partly counterbalanced by a negative volume effect for sales to final customers and on the wholesale markets.

In the hydrocarbon business, sales grew as a result of higher commodity prices and an overall volume effect, with larger sales volumes to wholesalers, industrial customers and residential customers, and higher generation volumes in Exploration-Production due to commissioning of new facilities during 2011.

1.3.1.2.4 Other international

The **Other international** segment principally covers operations in Europe excluding the United Kingdom and Italy, and operations in the United States, Brazil and Asia (China, Vietnam and Laos).

This segment contributed €7,976 million to Group sales in 2012, €475 million or +6.3% more than in 2011.

Foreign exchange effects between 2011 and 2012 amounted to +€15 million. The effect of changes in the scope of consolidation in this segment essentially reflects changes in the consolidation method for the Polish subsidiaries Zielona Gora and Kogeneracja[2]. Without these scope and exchange effects, sales would show organic growth of 5.5% compared to 2011.

Most of this increase concerns Austria, and to a smaller extent Belgium and Poland. However, sales showed a slight downturn in Hungary and the USA.

In **Austria**, sales stood at €625 million, registering organic growth of 49.9%, essentially explained by development in the optimisation business. This had no significant impact on the margin.

In **Belgium**, sales amounted to €3,771 million, corresponding to organic growth of +4.9%. This growth chiefly results from the rise in gas volumes sold as a result of favourable weather effects.

Poland registered 8.6% organic growth in sales, due to higher electricity sales volumes, the favourable impact of optimisation, and higher sales of green and yellow certificates (for renewable energies and gas) than in 2011.

1.3.1.2.5 Other activities

Other activities comprise, among other entities, EDF Énergies Nouvelles, EDF Trading, Electricité de Strasbourg and the investment in Dalkia

The contribution by the **Other activities** segment to Group sales in 2012 was €5,796 million, up by €281 million or 5.1%, with organic growth of 2.8% compared to 2011.

EDF Énergies Nouvelles' contribution to Group sales showed organic growth of 13.8% from 2011. This growth resulted primarily from the greater operating capacities for Generation. It also reflects the higher sales by the Development-Sales of Structured Assets activity.

EDF Trading's[3] sales saw an organic decline of 13.9% from 2011, particularly due to difficult market conditions in North America.

Dalkia's contribution to sales registered organic growth of €78 million (3.3%), mainly in continental Europe.

1. Edison and Fenice groups.

2. From proportional consolidation to full consolidation on 16 February 2012 after acquisition of EnBW's investments in these companies.

3. EDF Trading sales consist of its trading margins.

1.3.2 Operating profit before depreciation and amortisation (EBITDA)

EBITDA rose by 7.7%, with organic growth of 4.6%.

(In millions of Euros)	2012	2011 restated	Variation	Variation (%)	Organic growth (%)
Sales	72,729	65,307	7,422	+11.4	+5.8
Fuel and energy purchases	(37,098)	(30,195)	(6,903)	+22.9	+13.3
Other external expenses	(10,087)	(9,931)	(156)	+1.6	-0.4
Personnel expenses	(11,624)	(10,802)	(822)	+7.6	+6.3
Taxes other than income taxes	(3,287)	(3,101)	(186)	+6.0	+ 5.7
Other operating income and expenses	5,451	3,661	1,790	+48.9	+47.9
EBITDA	**16,084**	**14,939**	**1,145**	**+7.7**	**+4.6**

1.3.2.1 Change in consolidated EBITDA and analysis

Consolidated EBITDA for 2012 amounted to €16,084 million, up by 7.7% from 2011, corresponding to organic growth of 4.6%. Changes in the scope of consolidation had a positive effect of €309 million, principally concerning Edison. The favourable foreign exchange effect of €154 million mostly resulted from the rise of the pound sterling against the Euro.

The Group's **fuel and energy purchases** amounted to €37,098 million in 2012, an increase of €6,903 million (+22.9%) compared to 2011, with organic growth at 13.3%. **France** registered an organic rise of 16.1% essentially explained by the increase in purchase obligations (€1 billion, offset by the CSPE recorded in Other operating income and expenses). In the **United Kingdom**, the organic growth of €169 million (+3.5%) is essentially explained by the higher cost of energy, and transmission and distribution tariffs. In **Italy**, the organic growth of 16.2% was mainly driven by a rise in gas sourcing costs. In the **Other International** segment, the 10.1% organic growth was mainly associated with the higher volumes concerned by optimisation activities in Belgium and Austria.

The Group's **other external expenses** amounted to €10,087 million, up by €156 million (+1.6%) from 2011, corresponding to slightly negative organic growth of -0.4%. The unfavourable organic variations in the **United Kingdom** (-€93 million) and *Italy* (-€50 million) is more than offset by the lower decrease in France, after introduction of a reinforced management plan for nuclear units improved monitoring of normal maintenance expenditure and scheduled regular checks.

The Group's **personnel expenses** totalled €11,624 million, €822 million higher than in 2011, with organic growth of 6.3%. This change essentially related to **France**, where personnel expenses totalled €8,676 million, corresponding to organic growth of 7.6% since 2011, as a result of the increase in the workforce, the effect of pay measures, and the rise in employer's social charges (now calculated on a broader basis).

Taxes other than income taxes stood at €3,287 million for 2012, up by €186 million from 2011 (+6.0%, or 5.7% in organic growth). This rise includes the effect of higher taxes for the Generation activity in France.

Other operating income and expenses generated net income of €5,451 million for 2012, €1,790 million higher than in 2011, or an organic variation of +47.9%. In **France**, the organic rise of €1,613 million is attributable to the €1,131 million increase in the CSPE associated with the higher compensation for purchase obligations, and the positive effect of the end of the TaRTAM transition tariff system in July 2011. In **Italy**, Edison's other operating income and expenses showed an organic rise of €347 million due to the favourable effect of prior-year shares of the results of renegotiation of long-term natural gas supply contracts. In the **United Kingdom**, in contrast, other operating income and expenses showed an organic decline of €227 million due mainly to the unfavourable effect of the fair value adjustment of electricity sale contracts at the time of EDF's acquisition of British Energy.

1.3.2.2 Consolidated EBITDA and analysis by segment

(In millions of Euros)	2012	2011 restated	Variation	Variation (%)	Organic growth (%)
France	9,930	9,196	734	+8.0	+8.0
United Kingdom	2,054	1,942	112	+5.8	-1.5
Italy	1,019	592	427	+72.1	+23.1
Other International	1,067	1,280	(213)	-16.6	-19.5
Other activities	2,014	1,929	85	+4.4	+4.7
Total excluding France	6,154	5,743	411	+7.2	-0.9
GROUP EBITDA	**16,084**	**14,939**	**1,145**	**+7.7**	**+4.6**

1.3.2.2.1 France

Change in EBITDA for the "France" segment

France contributed €9,930 million of consolidated EBITDA for 2012, 8.0% higher than in 2011 both at face value and in terms of organic growth. This contribution accounted for 61.7% of Group EBITDA, identical to 2011.

Breakdown[1] of EBITDA for the "France" segment between deregulated activities, network activities and island activities

(In millions of Euros)	**2012**	2011 restated	Variation	Variation (%)
EBITDA	9,930	9,196	734	+8.0
Deregulated activities	6,209	6,116	93	+1.5
Network activities	3,451	2,820	631	+22.4
Island activities	270	260	10	+3.8

EBITDA for the deregulated activities rose slightly by 1.5%.

This essentially reflects:

- volumes: the effect of lower nuclear generation (-€635 million), partly counterbalanced by the improved hydropower output (+€357 million), and an unfavourable weather effect (-€208 million) mainly due to the wave of cold weather in February 2012 which caused a peak in demand that was met at high cost, and a €177 million increase in operating expenses;
- prices: the favourable effect of long-term contracts and Eurodif contract (+€238 million), the end of the TaRTAM transition tariff system (+€225 million) and the slight rise in the portion of regulated sale tariffs concerning energy (excluding delivery) (+€188 million).

EBITDA for the network activities registered a 22.4% increase resulting from the tariff increase for energy delivery, the favourable weather effect and the negative impact of correction of the rate of prior year network losses recorded in 2011, which had no equivalent in 2012.

EBITDA for the island activities was up by €10 million (+3.8%), principally due to the tariff increase.

1.3.2.2.2 United Kingdom

The **United Kingdom's** contribution to Group EBITDA for 2012, including the impact of fair value adjustment of British Energy's initial balance sheet, was €2,054 million, up by 5.8% from 2011, with an organic change of -1.5%. The favourable foreign exchange effect, amounting to €142 million, relates to the pound sterling's rise against the Euro between 2011 and 2012.

Excluding the unfavourable impact of fair value adjustment of British Energy's initial balance sheet (particularly electricity sale contracts), EBITDA showed organic growth of 7.5%.

The operating performance was marked by a rise of 4.2 TWh (+7.5%) in nuclear power output to 60.0 TWh and a rise of 6.5 TWh in coal-fired generation output achieved by good availability in the generation fleet. This factor and the higher wholesale prices had a favourable effect on margins.

1.3.2.2.3 Italy

The **Italy** segment contributed €1,019 million to the Group's consolidated EBITDA, an increase of 72.1% from 2011 (organic increase of +23.1%).

Edison contributed €918 million to consolidated EBITDA in 2012 against €480 million in 2011, corresponding to organic growth of €148 million or 30.8%.

The hydrocarbon activities' contribution to EBITDA rose significantly from 2011 (+€294 million). The arbitration rulings[2] in Edison's favour in September and October 2012 regarding long-term gas supply contracts with Rasgas (Qatar) and ENI (Libya) generated a €680 million increase in EBITDA (including €347 million for previous years). Exploration-Production also registered good results. Nonetheless, these activities are still adversely affected by falling margins on gas sales to end customers, which resulted from lower demand combined with high availability on spot markets at European gas hubs, causing decorrelation between spot gas prices and the cost of long-term contracts. A new phase of price reviews with gas suppliers began in the fourth quarter of 2012, to restore the profitability of these contracts. Arbitration proceedings concerning the Algerian gas import contract are currently in process, with a ruling expected in 2013.

EBITDA for the electricity activities declined, primarily due to shrinking unit margins on the final customer market and lower profits on the balancing market than in 2011.

1.3.2.2.4 Other international

EBITDA for the **Other international** segment stood at €1,067 million in 2012, down by 16.6%, corresponding to an organic decline of 19.5%.

EBITDA in **Poland** registered an organic decline of €113 million, including the effect of contracting margins caused by a rise in biomass fuel prices and a fall in the price of green certificates (for renewable energies).

Brazil recorded an organic decline of €53 million in EBITDA, largely attributable to two major scheduled shutdowns at the Norte Fluminense plant in the first half of 2012 and the exceptionally high level of exports in 2011.

1. Further details of this breakdown can be found in section 1.3.1.2.1.

2. Concerning gas years from October 2010 to September 2012.

EBITDA in the **United States** also showed an organic decline (-€27 million), explained by the lower margin achieved by CENG due to falling market prices for electricity, and the higher number of days of scheduled and unscheduled shutdowns in 2012 compared to 2011. This decline is partly offset by limitation of expenditure on UniStar's Calvert Cliffs 3 project with a view to obtaining the NRC construction and operating licence, and optimisation of structural costs in the holding company EDF Inc.

EBITDA in **Belgium** registered an organic decline of €16 million, reflecting the unfavourable effects of new regulation mechanisms that came into force in 2012 (presented in section 1.2.2.4.2), and the shutdown of the Doel 3 and Tihange 2 power plants.

1.3.2.2.5 Other activities

Other activities contributed €2,014 million to Group EBITDA for 2012, €85 million more than in 2011, with organic growth of +4.7%.

EDF Énergies Nouvelles' contribution to consolidated EBITDA stood at €642 million. The organic increase of 20.6% compared to 2011 was driven by development of Generation (with higher wind and solar power output in Europe and North America due to the large number of facilities commissioned in 2011 and 2012, and favourable weather conditions), and by a good level of business in Development-Sales of Structured Assets activities.

EBITDA at **EDF Trading** was down by 20.1% compared to 2011, reflecting changes in the trading margin (for details see section 1.3.1.2.5).

Dalkia's EBITDA saw an organic decline of €22 million (-8.9%), due to the sluggish business environment in Italy.

EBITDA for this segment also benefited from the favourable effect of real estate operations, and renegotiations of insurance contracts.

1.3.3 Operating profit (EBIT)

EBIT declined by 2.4%.

(In millions of Euros)	**2012**	2011 restated	Variation	Variation (%)
EBITDA	16,084	14,939	1,145	+7.7
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	(69)	(116)	47	-40.5
Net depreciation and amortisation	(6,849)	(6,285)	(564)	+9.0
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(164)	(221)	57	-25.8
(Impairment)/reversals	(752)	(640)	(112)	+17.5
Other income and expenses	(5)	775	(780)	-100.6
OPERATING PROFIT (EBIT)	**8,245**	**8,452**	**(207)**	**-2.4**

The Group's consolidated **EBIT** amounted to €8,245 million for 2012, €207 million lower than in 2011. The main factors in this change were the lower level of other income and expenses, and higher net depreciation and amortisation, which were partly offset by the positive development in EBITDA.

1.3.3.1 Net changes in fair value on energy and commodity derivatives, excluding trading activities

The net changes in fair value on Energy and Commodity derivatives, excluding trading activities, rose from -€116 million in 2011 to -€69 million in 2012. Positive changes were mainly located in the **Other International** segment (Belgium) and the **Other activities**.

1.3.3.2 Net depreciation and amortisation

Net depreciation and amortisation was up by 9.0% from 2011.

France recorded higher net depreciation and amortisation (+€287 million) as major nuclear plant components were replaced and new investments were made for plants in operation, despite the favourable effect of the change in estimate concerning the operating lifetime of certain distribution assets.

In the **United Kingdom**, net depreciation and amortisation for 2012 benefited from a favourable €225 million effect related to the longer operating lifetimes of AGR[1] nuclear plants, which were extended by 5 years and 7 years compared to the expected operating lifetimes when EDF took over British Energy in January 2009.

In **Italy**, the higher hydrocarbon generation volumes at Edison led to a rise in amortisation and depreciation expenses. In the Exploration-Production sector, Edison continued exploring in Norway and the Falkland Islands, and made two discoveries in Norway covering an estimated 18 billion m^3 of gas reserves (in which Edison holds a 20% share). The related exploration costs were charged to expenses for the year.

At **EDF Énergies Nouvelles**, commissioning of new generation facilities caused a €58 million increase in net depreciation and amortisation.

1. Advanced gas-cooled reactors.

1.3.3.3 Net increases in provisions for renewal of property, plant and equipment operated under concessions

The €57 million decrease in **net increases in provisions for renewal of property, plant and equipment operated under concessions** between 2011 and 2012 is essentially attributable to ERDF.

1.3.3.4 Impairment/reversals

In 2011, impairment of €640 million was recorded, concerning Edison in **Italy** (€320 million, including €280 million for Edipower), the **Other activities** segment (€267 million), and the **Other International** segment with BE ZRt in Hungary (€53 million).

In 2012, impairment of €752 million was recorded, chiefly concerning CENG in the United States (**Other international** segment; €396 million) due to the less favourable outlook for forward electricity prices, the **United Kingdom** (€234 million) for fossil-fired plants, and Edison in **Italy** (€44 million).

1.3.3.5 Other income and expenses

Other income and expenses totalled a net expense of €5 million in 2012 compared to net income of €775 million in 2011. In 2011, other income and expenses comprised the positive €414 million impact of changes in the estimated useful lives of certain French public distribution facilities on the provision for renewal, and the €327 million gain on sale of EnBW.

In 2011, the main components of other income and expenses were:

- a net expense of €(70) million resulting from upward revision of the estimated costs for decommissioning permanently shut-down nuclear power plants in France (UNGG power plants, Creys-Malville, Brennilis and Chooz A), and the revision of certain costs related to interim storage of spent fuel;
- income of €160 million concerning ERDF, resulting from reversal of a provision for renewal following a change in estimate for the useful life of high/low voltage transformers (extended from 30 years to 40 years);
- also, application of IFRS 3 (revised) led to recognition of the following items in Other income and expenses in connection with the takeover of Edison:
  - a loss of €1,090 million on the previously-held investment,
  - negative goodwill of €1,023 million.

1.3.4 Financial result

(In millions of Euros)	**2012**	2011 restated	Variation	Variation (%)
Cost of gross financial indebtedness	(2,443)	(2,271)	(172)	+7.6
Discount effect	(3,285)	(3,064)	(221)	+7.2
Other financial income and expenses	2,366	1,555	811	+52.2
FINANCIAL RESULT	**(3,362)**	**(3,780)**	**418**	**-11.1**

The financial result for 2012 is a financial expense of €3,362 million, down by €418 million from 2011 as a result of the following:

- cost of gross financial indebtedness: the 7.6% increase is related to the rise in the Group's average gross debt;
- discount effect: the €221 million rise in discount expenses is mainly explained by revision of the discount rate used for nuclear provisions in France, partly counterbalanced by a reversal of discount expenses on partner advances reimbursed by EDF to Enel in late 2012 after Enel withdrew from the Flamanville 3 project (€101 million);
- other financial income and expenses: the favourable change derives from the financial income of €629 million in compensation for the cost of bearing the accumulated shortfall in the CSPE system, and optimisation of cash and liquid assets.

1.3.5 Income taxes

Income taxes amounted to €1,586 million in 2012, corresponding to an effective tax rate of 32.5%. The effective tax rate was 28.6% in 2011.

The main causes of the rise in the effective tax rate between 2011 and 2012 are the new finance laws in France, and the favourable effect of low taxation of the gain on sale of the Group's investment in EnBW in 2011, which had no equivalent in 2012.

1.3.6 Share in income of associates

The Group's share in income of associates was a positive €260 million in 2012, compared to €51 million for 2011. This increase is mainly due to growth in RTE's net income compared to 2011, and recognition of impairment on Alpiq in 2012, which was lower than the corresponding impairment booked in 2011.

1.3.7 Net income attributable to non-controlling interests

Net income attributable to non-controlling interests amounted to €241 million for 2012, stable compared to 2011.

1.3.8 EDF net income

EDF net income for 2012 was €3,316 million, up by €168 million or 5.3% compared to 2011.

1.3.9 Net income excluding non-recurring items

The Group's net income excluding non-recurring items [1] stood at €4,216 million for 2012, €609 million (16.9%) higher than 2011.

1. *Group net after-tax income excluding non-recurring items and net changes in fair value on Energy and Commodity derivatives, excluding trading activities, net of tax.*

Non-recurring items and net changes in fair value on Energy and Commodity derivatives, excluding trading activities, net of tax in 2012 (-€900 million) mainly comprised:

- *-€856 million for impairment and updating of provisions (especially nuclear provisions);*
- *-€44 million of net changes in fair value on Energy and Commodity derivatives, excluding trading activities.*

Non-recurring items and net changes in fair value on Energy and Commodity derivatives, excluding trading activities, net of tax in 2011 amounted to -€459 million, mostly comprising impairment and the gain on disposal of EnBW.

1.4 Net indebtedness, cash flows and investments

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. The definition of net indebtedness was revised in 2012 and now includes the Group's loans to RTE and joint ventures.

Changes in the Group's net indebtedness were as follows:

(In millions of Euros)	**2012**	2011 restated [4]	Variation	Variation (%)
Operating profit before depreciation and amortisation (EBITDA)	**16,084**	**14,939**	**1,145**	**+7.7**
Cancellation of non-monetary items included in EBITDA	(715)	(2,040)	1,325	
Net financial expenses disbursed	(1,634)	(1,623)	(11)	
Income taxes paid	(1,586)	(1,331)	(255)	
Other items	165	336	(171)	
Net cash flow from operations [1]	**12,314**	**10,281**	**2,033**	**+19.8**
Change in working capital	(2,390)	(1,121)	(1,269)	
Net operating investments (gross Capex less disposals)	(12,638)	(10,637)	(2,001)	
Free cash flow	**(2,714)**	**(1,477)**	**(1,237)**	
Allocation to dedicated assets, France	(737)	(315)	(422)	
Net financial investments	(1,021)	3,277	(4,298)	
Dividends paid	(2,355)	(2,383)	28	
Other changes [2]	365	8	357	
(Increase)/Decrease in net indebtedness, excluding the impact of changes in scope of consolidation and exchange rates	**(6,462)**	**(890)**	**(5,572)**	
Effect of change in scope of consolidation	(1,870)	2,607	(4,477)	
Effect of change in exchange rates	(137)	(516)	379	
Effect of other non-monetary changes [3]	179	(97)	276	
(Increase)/Decrease in net indebtedness	**(8,290)**	**1,104**	**(9,394)**	
NET INDEBTEDNESS AT BEGINNING OF PERIOD	**33,285**	**34,389**		
NET INDEBTEDNESS AT END OF PERIOD	**41,575**	**33,285**		

(1) Operating cash flow is not an aggregate defined by IFRS as a measure of financial performance, and is not directly comparable with indicators of the same name reported by other companies. This indicator, also known as Funds From Operations (FFO), is equivalent to net cash flow from operating activities excluding changes in working capital after adjustment for the impact of non-recurring items, less net financial expenses disbursed and income taxes paid.

(2) Principally capital increases subscribed by minority shareholders, changes in accrued interest on debt, contributions received on assets operated under concession, investment subsidies and the full and final payment to Areva for dismantling La Hague (the last payment was made in June 2011 and amounted to €664 million plus taxes).

(3) Mainly corresponds to changes in fair value and accounting reclassifications affecting net indebtedness.

(4) Figures for 2011 have been restated for the impact of the change in accounting method for actuarial gains and losses on post-employment benefits: the restatements to "EBITDA" and "Cancellation of non-monetary items included in EBITDA" amount to +€115 million and -€115 million respectively.

The change in net indebtedness over 2012 incorporates all the impacts of the Edison operation (+€3,259 million), principally:

- takeover via acquisition of Transalpina di Energia (+€784 million);
- acquisition of minority shareholdings (+€869 million);
- acquisition by Delmi of the investment in Edipower (-€684 million);
- the effect of changes in the scope of consolidation, mainly related to 100% inclusion of the net indebtedness of Edison and TdE, partially offset by the fact that Edipower is no longer included in the net financial indebtedness (+€2,290 million).

1.4.1 Operating cash flow

The operating cash flow amounted to €12,314 million at 31 December 2012 compared to €10,281 million in 2011, an increase of €2,033 million (+19.8%).

This change principally reflects the rise in EBITDA (+€1,145 million), and the decrease in non-monetary items (+€1,325 million), primarily relating to fair value adjustments of financial derivatives. These positive effects were partly counterbalanced by the rise in income taxes paid (-€255 million), particularly in France, mainly as a result of the higher profits reported by the French tax consolidated group and the impact of new finance laws.

1.4.2 Change in working capital

Working capital increased by €2,390 million over 2012. This rise was caused by:

- an increase in the CSPE receivable, including income related to energy invoiced (-€1,426 million);
- reimbursement to Enel of its investment in the Flamanville 3 EPR after the nuclear cooperation with EDF was ended (-€586 million);
- higher inventories (-€508 million), mainly concerning France (-€754 million) and the United Kingdom (-€226 million), essentially for nuclear fuels, partly mitigated by lower inventories at EDF Énergies Nouvelles (+€394 million) associated with its Development and Sale of Structured Assets business.

1.4.3 Operating investments (gross Capex)

Operating investments (gross capital expenditure) amounted to €13,386 million for 2012, €2,252 million (+20.2%) higher than for 2011. Changes over the year in the Group's gross capital expenditure were as follows:

(In millions of Euros)	**2012**	2011 restated	Variation	Variation (%)
Deregulated activities	4,383	3,896	487	+12.5
Network activities	3,073	2,754	319	+11.6
Island activities	779	728	51	+7.0
France	**8,235**	**7,378**	**857**	**+11.6**
United Kingdom	1,643	1,179	464	+39.4
Italy	438	318	120	+37.7
Other International	490	436	54	+12.4
Total International	**2,571**	**1,933**	**638**	**+33.0**
Other activities	**2,580**	**1,823**	**757**	**+41.5**
Operating investments	**13,386**	**11,134**	**2,252**	**+20.2**

Capital expenditure in **France** increased by €857 million or +11.6%. For the deregulated activities, the increase was concentrated in nuclear maintenance (€570 million), mainly for asset maintenance operations. Expenditure to improve the nuclear units' performance led to an increase in the amounts capitalised. The reinforced management plan also enhanced monitoring of general maintenance expenditure and scheduled checks carried out at regular intervals. These checks qualify as major inspections and the related costs are capitalised.

The increase in the network activities is largely explained by ERDF's investments in customer connections (€125 million) and network coverage quality (€106 million). In the island activities, the increase concerned investments in new generation capacities currently under construction in Upper Corsica and Guadeloupe (Pointe Jarry).

In the **United Kingdom**, gross capital expenditure rose by €464 million or 39.4% in 2012, largely due to a higher level of investment in developing New Nuclear facilities and renewable energies.

In **Italy**, capital expenditure for the 2012 was up by €120 million or 37.7%. The rise mainly concerned Edison and essentially reflects the scope effect resulting from the takeover of Edison in May 2012. Excluding this effect (amounting to approximately €192 million), Edison's operating investments were down by €77 million, due to substantially lower capital expenditure in the electricity activities (-€89 million).

In the **Other international** segment, capital expenditure for 2012 rose by €54 million compared to 2011, principally in Poland.

Capital expenditure in the **Other activities** was up by €757 million (41.5%). This variation is primarily due to the increase in operating investments undertaken by EDF Énergies Nouvelles (€714 million), enabling the company to expand its generation fleet and subsequently sell part of the fleet on in the form of structured assets.

1.4.4 Free cash flow

The Group's free cash flow in 2012 was negative at -€2,714 million (against -€1,477 million in 2011). The main factors were:

- operating cash flow of €12,314 million (see section 1.4.1);
- a decrease in working capital over 2012 (-€2,390 million, see section 1.4.2);
- gross capital expenditure of €13,386 million (see section 1.4.3).

The -€1,237 million difference from 2011 results mainly from the lower working capital (-€1,269 million), while the rise in gross capex (-€2,252 million) was almost fully offset by the increase in operating cash flow (+€2,033 million).

1.4.5 Allocation to dedicated assets

In compliance with the French Law of 28 June 2006 on the sustainable management of radioactive materials and waste, EDF is continuing to build up a portfolio of dedicated assets for secure financing of its long-term nuclear obligations.

The cash allocation to dedicated assets in France amounted to €737 million for 2012. This is €422 million higher than in 2011 because allocations to the dedicated asset portfolio were suspended with the approval of the Board of Directors from September 2011, due to market conditions. Allocations resumed at the start of 2012, at a slightly faster pace in view of the dedicated asset portfolio's lower value at 31 December 2011.

1.4.6 Net financial investments (excluding the allocation to dedicated assets)

In 2012 net financial investments (excluding allocations to dedicated assets) amounted to €1,021 million, mainly relating to:

- the takeover of Edison (-€969 million);
- purchase of the shares in ERSA and Kogeneracja held by EnBW (-€301million);
- sale of all the shares in Exelon (+€361 million);
- receipt of the sale price of the Eggborough coal-fired plant (+€261 million);
- the takeover of Enerest by Électricité de Strasbourg (-€139 million).

1.4.7 Dividends

Dividends paid in cash (€2,355 million) comprise the balance of the 2011 dividends (€1,072 million), the interim dividend for 2012 (€1,053 million) and the dividends paid by Group subsidiaries to their minority shareholders (€230 million), principally Centrica in the UK (€117 million). In 2011, dividends paid in cash amounted to €2,383 million.

1.4.8 Scope and foreign exchange effects

In 2012, the scope effect (effect of changes in the scope of consolidation) mainly reflects the Edison operations (-€2,290 million) and the exclusion from net indebtedness of companies sold by EDF Énergies as part of its Development and Sale of Structured Assets business.

The 2011 scope effect essentially resulted from deconsolidation of EnBW's financial debt (€2,591 million).

Foreign exchange effects (essentially the rise of the pound sterling and the fall of the US dollar against the Euro [1]) had an unfavourable -€137 million impact on the Group's net indebtedness in 2012.

1.4.9 Net financial indebtedness

The Group's net indebtedness stood at €41,575 million at 31 December 2012 compared to €33,285 million at 31 December 2011, an increase of €8,290 million over 2012.

This rise is mainly due to the impacts of the Edison operation (€3,259 million), the negative free cash flow (-€2,714 million, see section 1.4.4), and payment of dividends (-€2,355 million, see section 1.4.7).

1.4.10 Financial ratios

	2012 proforma (1)	**2012**	2011 restated
Net financial debt /EBITDA	2.4 (2)	2.6 (2)	2.2
Net financial debt /(Financial debt + equity) (3)	56%	58%	50%

(1) The 2012 proforma ratios are restated to reflect allocation of the CSPE receivable to dedicated assets on 13 February 2013 and withdrawal of €2.4 billion of assets, such that 100% of EDF's nuclear liabilities eligible for coverage by the dedicated assets are covered.

(2) The 2012 ratios include 100% of Edison's restated EBITDA in the denominator.

(3) Equity including non-controlling interests.

1. The US dollar fell by 1.9% against the Euro, from €0.7729/$1 at 31 December 2011 to €0.7579/$1 at 31 December 2012.
The pound sterling rose by 2.4% against the Euro, from €1.1972/£1 at 31 December 2011 to €1.2253/£1 at 31 December 2012.

1.5 Research and development

1.5.1 Research and development, patents and licences

The primary objective of the EDF group's Research and Development (R&D) Division is to contribute to performance improvement in the operational units, and identify and prepare medium and long-term growth engines. In 2012, the Group's total R&D expenses amounted to €527 million (compared to €518 million in 2011), around 20% of which were directed into environmental issues. This 20% share of R&D expenses particularly concerned research into energy efficiency, use of electricity as a substitute for fossil energies, renewable energies and their incorporation into the electricity system, sustainable cities, the local impacts of climate change, and other environmental issues such as biodiversity, water quality, and reduction of harmful effects. Investments in dedicated innovation funds are also part of this strategy.

Close to 70% of EDF's R&D activities each year concern projects instigated by the operational divisions and Group subsidiaries, with the rest concentrated on medium and long-term actions for the future – one of the main priority areas for R&D. EDF's Research and Development Division employed more than 2,000 members at 31 December 2012 on seven sites (three in the Paris area, one in Germany, one in the UK, one in Poland and one in China).

R&D aims to incorporate innovations into the Group's industrial processes, in an approach that focuses on two actions:

(i) to capitalise on internal innovation, and accelerate the "time to business" through joint action with the business lines in order to speed up and/or encourage the industrialisation phase;

(ii) to become more open to external innovation, and where relevant, adopt external innovations for demonstration. This is why EDF is the lead investor of Electranova Capital, a venture capital fund launched in May 2012 for start-up firms specialising in clean technologies.

In November 2010, EDF's Board of Directors validated the plan to establish EDF's principal R&D centre on the Paris-Saclay Campus. Planning permission has been obtained and all possible recourse procedures have been exhausted. Up to 1,500 people will work at this centre, including Group researchers and PhD students. EDF is thus giving its R&D a new ambition, and placing innovation and scientific and industrial research at the heart of its priorities. This strategy positions EDF as a leading actor on the Paris-Saclay Campus, and the Group will benefit from a closer cooperation dynamic with the public and private higher education and research establishments located nearby.

1.5.2 R&D priorities

EDF's R&D ambitions focus on three priority areas:

- consolidating and developing a carbon-free energy mix;
- fostering flexible, low-carbon energy demand;
- adapting the electricity system in response to the latest issues.

In the first of these areas, the key objectives are to consolidate the Group's nuclear advantage, develop renewable energies, and examine the industrial feasibility of carbon capture and storage.

To reinforce and secure the Group's nuclear advantage, R&D is working to protect EDF's assets, taking a continuous improvement approach to plant safety in its search for ways to enhance performance and extend operating lifetimes. Action in this area also covers questions related to the fuel cycle, leading to assessment of new plant design, particularly 4th generation facilities and small modular reactors (SMRs). Finally, R&D action contributes to knowledge and control of the environmental impact of installations, and consideration of environmental risks for industrial equipment. In-depth understanding of the phenomena involved is required to address these issues. To support these programmes, the R&D teams are developing digital simulators and experimental testing resources, as well as tools to respond to the new challenges brought about by growth in the mass of digital data, IT security and new information and communication technologies. After the Fukushima accident in 2011, research intensified on the themes of safety, the environment (external events) and operating lifetimes, but also turned to new topics such as rehabilitation of a populated area evacuated after a nuclear incident.

In the field of renewable energies, R&D seeks to identify technological breakthroughs with significant competitive value, and helps to bring the most promising technologies into industrial existence to benefit the Group, particularly in solar and marine energy, but also in wind power, biomass and geothermal technologies. R&D is also working on raising performance for EDF as a developer and operator of renewable energy-based electricity generation incorporated into electricity systems, in order to:

- reduce the risks on investments;
- improve operating performance;
- control the technical and economic impact on the electric system;
- guarantee balance in the electric system while including renewable energies;
- identify and develop business models for energy offers containing renewable energies, that meet the needs and demands of customers and local authorities.

For carbon capture and storage, the role of R&D is to evaluate processes in order to take a long-term position in coal-fired generation. R&D works alongside EDF's Heat generation and engineering division on pilot schemes, for instance a pilot scheme for amine-based carbon capture in Le Havre power plant reactors.

In the second priority area, R&D is innovating with new uses for electricity: mobile electricity, heat pumps, and energy-saving buildings for different market segments. The R&D teams also contribute to preparation of new offers for customers who are actors in the energy markets, and propose tools and methods to develop customer knowledge, design benchmark energy solutions and improve sales management. To advance sustainable development, EDF R&D is investing in several experiments in Europe to assist future "smart cities" with local-scale infrastructure optimisation, and is also involved in other innovations, notably concerning mobile electricity.

The third priority area for R&D is adapting the electricity system to a carbon-free economy: this will require skills for managing intermittent supply, incorporating new uses of electricity while optimising generation facilities and network requirements, developing energy management systems on a local scale, and optimising electricity flows on a continental scale.

The shift towards "smart grids" is a cornerstone of these R&D efforts. In anticipation of the arrival of new technologies and their impact on the changing energy landscape, the R&D teams are developing energy system models that offer better control of the supply-demand balance. They supply innovative solutions that facilitate incorporation of decentralised intermittent generation, improving management of network assets (wear and tear of equipment, metering procedures, automation to optimize quality and cost, etc). R&D is contributing to several "smart grid" demonstrators in Europe, and preparing for the emergence of large continuous-current networks or "super grids" in Europe and throughout the world.

1.5.3 An integrated actor in French, european and worldwide research

To carry out its research and development programmes, EDF R&D concludes partnerships across the whole world.

Since 2010, three international R&D units have been set up, one in Poland, the second in the United Kingdom and the third in China, in addition to the existing centre in Germany. In 2012 EDF's UK R&D centre became an independent legal entity, EDF Energy R&D UK centre Ltd, a subsidiary of EDF Energy.

These centre have the following objectives:

- To support the Group's activities by providing R&D skills to Group subsidiaries in their own country, either directly or with the support of the Group's R&D teams;
- To take advantage of centre locations to identify local advances and technological initiatives, experiment with innovative solutions by participating in demonstrators, and conclude partnerships with universities, institutes and industrial actors in certain target fields.

In France, R&D has some 12 shared laboratories set up over the years with academic research partners (including several with Paris-Saclay Campus partners), and technical or industrial centre. Through these laboratories the Group contributes to joint research projects funded by national agencies. 2012 saw four important initiatives in connection with the Plateau de Saclay campus project, joining the creative dynamic of the University/Industry cluster: a programme of research into optimisation for production management and planning with the *Fondation de Mathématiques Hadamard* (PGMO programme), formation of two joint laboratories: one with electrical engineering school *Supelec* concerning smart grids (RiseGrid), the other with telecom engineering school *Telecom ParisTech*, concerning the Internet of Things and cybersecurity (SEIDO), and finally an earthquake research institute with the CEA, ENS Cachan and *École Centrale de Paris* (SEISM). R&D also supports specific chairs of techning and research, particularly through its Foundation for Tomorrow's Energies (*Fondation pour les Énergies de Demain*). In Europe, EDF's R&D is involved in some thirty projects. Working with the Energy Technology Institute, the Engineering and Physical Sciences Research Council and several UK universities, it is reinforcing its involvement in partnership-based research in the United Kingdom

EDF R&D also entered projects for France's low-carbon energy excellence awards (part of the French government's project on Investments with a Future (*Investissements d'Avenir*)). EDF is involved in five of the winning projects announced by the government in March 2012: *Institut Photovoltaïque Ile-de-France* (IPVF) for photovoltaic power, *France Énergies Marines* (on marine power and offshore wind power), *SuperGrid* on the theme of major transmission networks to connect distant renewable energy generation sites, *Efficacity* on the sustainable city, and *Vedecom* for electric mobility.

In other investments with a future, EDF is also contributing to the *Paris-Saclay Efficacité Énergétique* project on energy efficiency in industry, and was the instigator of the *Connexion* project launched in 2012, for research on future digital nuclear control systems.

EDF R&D also took part in two "Knowledge and Innovation Communities", European Commission initiatives to encourage knowledge and skill transfer between the worlds of education, research and industry. The priority areas are climate change, intelligent networks and cities, storage, and renewable energies. In 2012 EDF R&D and other European nuclear actors initiated the international association Nugenia, set up in March 2012 to provide a framework for R&D cooperation in Europe for 2nd and 3rd generation nuclear systems, as part of the European SNETP (Sustainable Nuclear Energy Technology Platform).

1.5.4 Intellectual property policy

At 31 December 2012, EDF had a portfolio of 483 patented inventions protected by 1,531 intellectual property titles in France and other countries.

EDF is also a registered trademark in more than 80 countries.

1.6 Management and control of market risks

1.6.1 Management and control of financial risks

This chapter sets forth the policies and principles for management of the Group's financial risks defined in the Financial Management Framework (liquidity, interest rate, foreign exchange rate and equity risks), and the Group counterparty risk management policy set up by the EDF group. These principles apply only to EDF and operationally controlled subsidiaries or subsidiaries that do not benefit by law from specific guarantees of independent management (i.e. entities other than RTE and ERDF). In compliance with IFRS 7, the following paragraphs describe the nature of risks resulting from financial instruments, based on analyses of sensitivities and credit (counterparty) risks.

In view of the Group's international development, a dedicated body was formed at the beginning of 2002 – the Financial Risks Control Division *(Département Contrôle des Risques Financiers et Investissements* – DCRFI) – to control financial risks at Group level by ensuring correct application of the principles of the Financial Management Framework. This body also has the task of carrying out a second-level check (methodology and organisation) of EDF entities and operationally controlled group subsidiaries (excluding RTE and ERDF), and a first-level check of financing activities at parent company level, including Trading room activities.

The DCRFI issues daily monitoring reports of risk indicators relevant to activities in EDF's Trading room.

Regular internal audits are carried out to ensure controls are actually applied and are effective.

1.6.1.1 Liquidity position and management of liquidity risks

1.6.1.1.1 Liquidity position

At 31 December 2012, the Group's liquidities, consisting of liquid assets, cash and cash equivalents, totalled €16,613 million and available credit lines amounted to €8,598 million.

For 2013, the Group's scheduled debt repayments (principal and interest) are forecast at €15,139 million at 31 December 2012, including €5,989 million for bonds.

At 31 December 2012, no Group company was in default on any borrowing.

1.6.1.1.2 Management of liquidity risks

As part of its policy to manage liquidity, finance its operating investment and external growth programme and reinforce long-term debt, the Group undertook bond issues during 2012 (for details see note 38.2.1 to the consolidated financial statements at 31 December 2012, "Changes in loans and other financial liabilities". These bonds were issued either as part of EMTN (Euro Medium Term Note) programmes, or as stand-alone issues, for the total amount of €5,204 million and £750 million.

The average maturity of gross consolidated debt was thus 8.5 years at 31 December 2012 compared to 9.2 years at 31 December 2011, and EDF SA debt now has average maturity of 9.6 years compared to 10.4 years at 31 December 2011.

At 31 December 2012, the residual maturities of financial liabilities (including interest payments) are as follows under IAS 39 (values based on exchange and interest rates at 31 December 2012):

(In millions of Euros)	Debt	Hedging instruments [1] Interest rate swaps	Hedging instruments [1] Currency swaps	Guarantees given on bonds
2013	15,139	(145)	64	11
2014-2017	20,449	(609)	109	40
2018 and later	50,572	(1,748)	(49)	167
TOTAL	**86,160**	**(2,501)**	**124**	**218**
Incl. debt repayment	58,592			
Incl. interest expense	27,568			

(1) Data on hedging instruments include both assets and liabilities.

The EDF group was able to meet its financing needs by conservative liquidity management, and obtained financing on satisfactory terms.

A range of specific levers are used to manage the Group's liquidity risk:

- the Group's cash pooling system, which centralises cash management for controlled subsidiaries. The subsidiaries' cash balances are made available to EDF SA in return for interest, so as to optimise the Group's cash management and provide subsidiaries with a system that guarantees them market-equivalent financial terms. Edison is now part of the Group's cash pooling;
- centralisation of financing for controlled subsidiaries at the level of the Group's cash management department. Changes in subsidiaries' working capital are financed by this department in the form of stand-by credit lines provided for subsidiaries, which may also receive revolving credit from the Group. The investment subsidiary EDF Investissements Groupe (EDF IG), set up in partnership with the bank Natixis Belgique Investissements, also provides medium and long-term financing for EDF group operations outside France, arranged independently by EDF IG. The company sets its own terms, which are the same as the subsidiary would have in an arm's-length market transaction;
- active management and diversification of financing sources used by the Group: the Group has access to short-term resources on various markets through programmes for French commercial paper (*billets de trésorerie*), US commercial paper and Euro market commercial paper. For EDF SA, the ceilings for these programmes are €6 billion for its French commercial paper, $10 billion for its US commercial paper and $1.5 billion for its Euro market commercial paper.

  At 31 December 2012 the amount of commercial paper outstanding was €1,620 million for French commercial paper, and $4,493 million for US commercial paper. No Euro market commercial paper was outstanding.

  EDF has access to the world's main capital markets: the Euro markets through its EMTN (Euro Medium Term Note) programme, which currently has a ceiling of €20 billion, particularly for Euro and sterling issues; and the domestic markets used for stand-alone issues in US dollars (144A), yen (samurai bonds) and Swiss francs.

The table below sets forth the Group's borrowings of more than €750 million or the equivalent value in other currencies by maturity at 31 December 2012:

Entity	Issue date (1)	Maturity	Nominal amount (in millions of currency units)	Currency	Rate
EDF	11/2008	01/2013	2,000	EUR	5.6%
EDF	12/2008	12/2013	1,350	CHF	3.4%
EDF	01/2009	01/2014	1,250	USD	5.5%
EDF	07/2009	07/2014	3,269	EUR	4.5%
EDF	01/2009	01/2015	2,000	EUR	5.1%
EDF	10/2001	10/2016	1,100	EUR	5.5%
EDF	02/2008	02/2018	1,500	EUR	5.0%
EDF	01/2009	01/2019	2,000	USD	6.5%
EDF	01/2010	01/2020	1,400	USD	4.6%
EDF	05/2008	05/2020	1,200	EUR	5.4%
EDF	01/2009	01/2021	2,000	EUR	6.3%
EDF	01/2012	01/2022	2,000	EUR	3.9%
EDF	09/2012	03/2023	2,000	EUR	2.8%
EDF	09/2009	09/2024	2,500	EUR	4.6%
EDF	11/2010	11/2025	750	EUR	4.0%
EDF	03/2012	03/2027	1,000	EUR	4.1%
EDF	04/2010	04/2030	1,500	EUR	4.6%
EDF	07/2001	07/2031	650	GBP	5.9%
EDF	02/2003	02/2033	850	EUR	5.6%
EDF	06/2009	06/2034	1,500	GBP	6.1%
EDF	01/2009	01/2039	1,750	USD	7.0%
EDF	11/2010	11/2040	750	EUR	4.5%
EDF	10/2011	10/2041	1,250	GBP	5.5%
EDF	09/2010	09/2050	1,000	GBP	5.1%

(1) Date funds were received.

EDF and Edison have credit facilities at 31 December 2012 that can be used in the event of liquidity problems, with the following characteristics:

- EDF has an overall amount of €7,950 million in available credit facilities (syndicated credit and bilateral lines). Credit lines represent an available amount of €3,950 million, with expiry dates between January 2015 and June 2017; syndicated credit facilities amount to €4,000 million for maturities ranging from November 2015 to November 2017. The level of these facilities is very regularly reviewed to ensure that the Group has sufficient back-up facilities. No drawings had been made on syndicated credit facilities at 31 December 2012.

  EDF also has a €500 million credit line with the European Investment Bank, which was totally drawn at 31 December 2012 (drawings of €100 million in 2010, €350 million in 2011, and €50 million in 2012).
- Edison has a syndicated credit facility for €1,500 million (valid until 14 April 2013), drawn to the extent of €1,150 million at 31 December 2012. The €700 million "Club deal" previously available expired at the end of 2012.

1.6.1.2 Credit ratings

The financial ratings agencies Standard & Poor's, Moody's and Fitch Ratings attributed the following long-term and short-term ratings to EDF group entities at 31 December 2012:

Company	Agency	Long-term rating	Short-term rating
EDF	Standard & Poor's	A+, stable outlook	A-1
	Moody's	Aa3, creditwatch negative (1)	P-1
	Fitch Ratings	A+, stable outlook	F1
RTE	Standard & Poor's	A+, stable outlook	A-1
EDF Trading	Moody's	A3, creditwatch negative (2)	n.a.
EDF Energy	Standard & Poor's	A, negative outlook	A-1
	Moody's	A3, negative outlook (3)	P-2
	Fitch Ratings	n.a	n.a.
Edison SpA	Standard & Poor's	BBB, positive outlook (4)	A-2
	Moody's	Baa3, creditwatch negative	n.a.
	Fitch Ratings	BB, positive outlook (5)	B

n.a. = not applicable

(1) Moody's downgraded the outlook for EDF from stable to negative on 5 December 2012 after the Council of State's decision to cancel the 2009 decision on electricity tariffs. The negative outlook also reflects the rise in Group indebtedness and uncertainty over profitability for 2013.

(2) Downgraded by Moody's on 5 December 2012, along with the EDF group.

(3) Downgraded by Moody's on 5 December 2012, along with the EDF group.

(4) S&P upgraded Edison's rating from BB+ to BBB on 20 December 2012 following EDF's takeover of Edison, renegotiation of gas contracts and sale of an investment in Edipower, which all improved Edison's cash flow and credit ratios.

(5) Fitch upgraded Edison's rating from BB- to BB on 13 August 2012 following EDF's takeover of the Edison group.

1.6.1.3 Management of foreign exchange 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.

To limit exposure to foreign exchange risks, the Group has introduced the following management principles:

- local currency financing: 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;
- association of assets and liabilities: the net assets of subsidiaries located outside the Euro zone expose the Group to a foreign exchange risk. The foreign exchange risk in the consolidated balance sheet is managed either by matching with liabilities for acquisitions in the same currency, or by market hedging involving use of financial derivatives. Hedging of net assets in foreign currencies complies with risk/return targets, and the hedging rate varies from 73% to 92% depending on the currency. If no hedging instruments are available, or if hedging costs are prohibitive, the foreign exchange positions remain open and the risk on such positions is monitored by sensitivity calculations;
- hedging of operating cash flows in foreign currencies: 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, which concern lower amounts. Under the principles of the financial management framework, EDF and the main subsidiaries concerned by foreign exchange risks (EDF Energy, EDF Trading, Edison, EDF Énergies Nouvelles) are required to hedge firm or highly probable commitments related to these future operating cash flows.

After taking into account the financing and foreign exchange risk hedging policy, the Group's gross debt at 31 December 2012 breaks down as follows by currency after hedging:

Gross debt structure at 31 December 2012, by currency, before and after hedging

31 December 2012 *(In millions of Euros)*	Initial debt structure	Impact of hedging instruments (1)	Debt structure after hedges	% of debt
EUR	35,709	1,485	37,194	62%
USD	11,621	(6,240)	5,381	9%
GBP	7,927	5,773	13,700	23%
Other currencies	4,675	(1,018)	3,657	6%
TOTAL	**59,932**	**-**	**59,932**	**100%**

(1) Hedges of liabilities and net assets of foreign subsidiaries.

The table below presents the impact on equity of an unfavourable variation in exchange rates on the group's gross debt at 31 December 2012.

Sensitivity of the Group's gross debt to foreign exchange rate risks

31 December 2012 *(In millions of Euros)*	**Debt after hedging instruments converted into Euros**	Impact of a 10% unfavourable variation in exchange rates	Debt after a 10% unfavourable variation in exchange rates
EUR	37,194	-	37,194
USD	5,381	538	5,919
GBP	13,700	1,370	15,070
Other currencies	3,657	366	4,023
TOTAL	**59,932**	**2,274**	**62,206**

Due to the Group's foreign exchange risk hedging policy for liabilities, the income statement for companies controlled by the Group is marginally exposed to foreign exchange rate risks.

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 31 December 2012.

Net asset position

31 December 2012 *(In millions of currency)*	**Assets**	Bonds	Derivatives	US CP	Net position after management (Assets)
USD	5,186	4,000	756	-	430
CHF (Switzerland)	1,779	1,306			473
HUF (Hungary)	130,053		95,295		34,758
PLN (Poland)	3,517		2,648		869
GBP (United Kingdom)	14,139	6,035	4,915		3,189
BRL (Brazil)	626				626
CNY (China)	5,870				5,870

The assets in the above table are the net assets of the Group's foreign subsidiaries in foreign currencies at 30 September 2012, 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 at 31 December 2012. The hedges shown above are bonds, derivatives and commercial paper issues in foreign currencies outstanding at 31 December 2012.

The following table 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 31 December 2012, assuming unfavourable, uniform exchange rate variations of 10% against the Euro. Net positions are converted at the closing rate and impacts are reported in absolute value.

Sensitivity of net assets to exchange rate risks

(In millions of currency)	31/12/2012			31/12/2011		
	Net position after management, in currency	Net position after management, converted into Euros	Impact on equity of a 10% variation in exchange rates	Net position after management, in currency	Net position after management, converted into Euros	Impact on equity of a 10% variation in exchange rates
USD	430	326	32	548	424	42
CHF (Switzerland)	473	392	39	495	407	40
HUF (Hungary)	34,758	119	12	33,659	107	12
PLN (Poland)	869	213	21	767	172	17
GBP (United Kingdom)	3,189	3,908	391	2,853	3,416	341
BRL (Brazil)	626	232	23	692	286	29
CNY (China)	5,870	714	71	5,790	710	71

The foreign exchange risk on available-for-sale securities is mostly concentrated in EDF SA's dedicated asset portfolio, which is discussed in section 1.6.1.6., "Management of financial risk on EDF's dedicated asset portfolio".

The foreign exchange risk associated with short-term investments and operating liabilities in foreign currencies remains restricted for the Group at 31 December 2012.

1.6.1.4 Management of interest rate risk

The exposure of the Group's cash positions 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) 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. Some of the debt is variabilised and the distribution of exposure between fixed and floating rates is monitored with reference to asset/liability management criteria and expected fluctuations in interest rates. This distribution may involve the use of interest rate derivatives for hedging purposes.

The Group's debt after hedging instruments at 31 December 2012 comprised 79.2% of debt bearing interest at fixed rates and 20.8% at floating rates.

A 1% uniform annual rise in interest rates would generate an approximate €125 million increase in financial expenses at 31 December 2012, based on gross floating-rate debt after hedging.

The average cost of Group debt (weighted interest rate on outstanding amounts) was 3.7% in 2012.

The table below sets forth the structure of Group debt and the impact of a 1% variation in interest rates at 31 December 2012. The impact of interest rate fluctuations remains stable compared to 2011.

Group debt structure and sensitivity to interest rates

31 December 2012 *(In millions of Euros)*	Initial debt structure	Impact of hedging instruments	Debt structure after hedges	Impact on income of a 1% variation in interest rates
Fixed rate	52,306	(4,844)	47,462	-
Floating rate	7,626	4,844	12,470	125
TOTAL	**59,932**	**-**	**59,932**	**125**

Interest rate variations on fixed-rate debt have no accounting impact.

Concerning financial assets, the table below presents the interest rate risk on floating-rate bonds and negotiable debt securities at EDF SA, and their sensitivity to interest rate risks (impact on net income).

Sensitivity to interest rates of floating-rate instruments

31 December 2012 *(In millions of Euros)*	Value	Impact on income of a 1% variation in interest rates	Value after a 1% variation in interest rates
FLOATING-RATE SECURITIES	**1,633**	**(16)**	**1,617**

1.6.1.5 Management of equity risks

The equity risk is concentrated in the following areas:

Coverage of EDF's nuclear obligations

Analysis of the equity risk is presented in section 1.6.1.6, "Management of financial risk on EDF's dedicated asset portfolio".

Coverage of employee benefit commitments for EDF, EDF Energy and British Energy

Assets covering EDF's employee benefit liabilities are partly invested on the international and European equities markets. Market trends therefore affect the value of these assets, and a downturn in equity prices would lead to a rise in balance sheet provisions.
29% of the assets covering EDF's employee benefit liabilities were invested in equities at 31 December 2012, amounting to €2.4 billion.

At 31 December 2012, the two pension funds sponsored by EDF Energy (EDF Energy Pension Scheme and EDF Energy Group Electricity Supply Pension Scheme) were invested to the extent of 35.6% in equities, representing an amount of £286 million of equities.
At 31 December 2012, the British Energy pension funds were invested to the extent of 32.4% in equities, representing an amount of £1,260 million of equities.

CENG fund

CENG is exposed to equity risks in the management of its funds established to cover nuclear and employee benefit obligations.

EDF's long-term cash management

As part of its long-term cash management policy, EDF is continuing its strategy to reduce the portion of equity-correlated investments. At 31 December 2012 these investments amounted to a residual amount of approximately €3 million.

Direct investments

At 31 December 2012, EDF's investment in Veolia Environnement amounted to €202 million, with estimated volatility of 37.3% (annualised volatility of monthly returns observed over three years).

At 31 December 2012, EDF's investment in AREVA amounted to €110 million, with estimated volatility of 37.6% (annualised volatility of monthly returns observed over three years).

1.6.1.6 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 decommissioning expenses for the nuclear plants currently in operation, and the long-term storage of radioactive waste.

This dedicated asset portfolio, for which guiding principles were redefined in the law of June 28, 2006 on sustainable management of radioactive materials and waste, 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 specialised 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 the decree of February 23, 2007.

A **Nuclear Commitments 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.

In 2012, **dedicated assets** received cash allocations of €737 million, compared to €315 million in 2011 (see note 48 to the consolidated financial statements at 31 December 2012).

Disbursements for decommissioning expenses incurred in 2012 were financed by the dedicated asset portfolio to the extent of €350 million, compared to €378 million in 2011.

The governance principles setting forth the structure, decision-making process and management of dedicated assets are validated by EDF's Board of Directors. These principles also lay down rules for the asset portfolio's structure, selection of financial managers, and the legal, accounting and tax structure of the funds.

Strategic asset allocation is based on asset/liability reviews carried out to define the most appropriate portfolio model for financing nuclear expenses. A benchmark index is also set for performance monitoring and risk control regarding the financial portfolio (excluding RTE and tangible assets). Strategic allocation is reviewed every three years unless circumstances require otherwise. In 2012, assets are allocated as follows: 50% to RTE shares, and the rest to a financial portfolio (half international equities and half bonds).

The financial portfolio contains two sub-portfolios, "equities" and "bonds", themselves divided into "secondary asset classes" that correspond to specific markets. A third sub-portfolio, "cash", is used to prepare and supply the disbursements related to utilisation of provisions for plants currently being decommissioned; this portfolio may be tactically reinforced as a precaution in case of a market crisis.

Tactical asset management is organised around four main themes:

- supervision of exposure between the "equities", "bonds" and "cash" sub-portfolios;
- within each sub-portfolio, allocation by "class";
- choice of exposure by geographical area;
- selection of investment funds, aiming for diversification:
  - by style (growth securities, unlisted securities, high-return securities),
  - by capitalisation (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 (for compliance with maximum investment ratios).
- for bonds, a choice of securities held directly, through brokers, or via investment funds incorporating the aim for diversification:
  - by type of issue (fixed income, indexed income),
  - by type of instrument (government or supranational bonds, covered bonds and similar, corporate bonds),
  - by issuer and by maturity.

The allocation policy established by the Operational Management Committee[1] was developed on the basis of economic and financial prospects for each market and geographical area, and a review of market appreciation in different markets and market segments

Content and performance of EDF's dedicated asset portfolio

At 31 December 2012, the total value of the portfolio was €17,626 million compared to €15,601 million in 2011 (pro forma figures for RTE share valuations following the change in accounting method for actuarial gains and losses on employee benefits).

1. A permanent internal committee for evaluation, consultation and operational decision-making for management of dedicated assets.

Portfolio content under the classification from Article 4, decree 2007-243 of 23 February 2007

Categories *(in millions of Euros)*	31/12/2012 Book value [(1)]	31/12/2012 Realisable value	31/12/2011 Book value	31/12/2011 Realisable value
1° Bonds, receivables and other securities issued or guaranteed by an EU member state or OECD country	4,205	4,564	4,168	4,448
2° Bonds, negotiable bills, etc issued by private sector entities	550	642	1,099	1,155
3° Equities, shares and other securities traded on a recognised market, giving access to the capital of companies whose head office is located in the territory of a EU member state or OECD country	60	60	65	65
4° Shares or units in funds investing in assets referred to in 1° to 3°	8,051	8,761	6,541	6,865
5° Shares or units in funds investing principally in assets other than those referred to in 1° to 3°	998	1,191	658	777
6° Real estate shares (shares in unlisted real estate companies)	none	none	none	none
7° Deposits with BNP Paribas Securities Services	0.076	0.076	0.055	0.055
Other payables and receivables (dividends receivable, management fees, currency hedges, etc)	15	15	(19)	(19)
TOTAL FINANCIAL PORTFOLIO	**13,879**	**15,233**	**12,514**	**13,291**
RTE shares allocated to dedicated assets	2,015	2,393	2,015	2,310
TOTAL DEDICATED ASSETS, EXCLUDING MISCELLANEOUS RECEIVABLES AND PAYABLES	**15,879**	**17,611**	**14,548**	**15,620**
TOTAL DEDICATED ASSETS	**15,893**	**17,626**	**14,529**	**15,601**

(1) See EDF SA's financial statements at 31 December 2012, note 19.

Breakdown by sub-portfolio and performance in 2012

The breakdown of EDF's dedicated asset portfolio at 31 December 2012 and 2011 is as follows:

	31/12/2012	31/12/2011
Equities sub-portfolio	41.6%	37.1%
Bonds sub-portfolio	39.4%	42.4%
Cash sub-portfolio	5.4%	5.7%
RTE shares allocated to dedicated assets	1.6%	14.8%
TOTAL	**100%**	**100%**

The table below shows the performance by sub-portfolio at 31 December 2012 and at 31 December 2011:

(in millions of Euros)	**31/12/2012 Stock market or realisable value**	Performance for 2012		31/12/2011 Stock market or realisable value	Performance for 2011	
		Portfolio	Benchmark index (1)		Portfolio	Benchmark index
Equities sub-portfolio	7,343	+13.8%	+14.4%	5,783	-7.0%	-4.0%
Bonds sub-portfolio	6,937	+10.3%	+10.6%	6,615	+3.9%	+3.4%
TOTAL EQUITIES AND BONDS PORTFOLIO	**14,280**	**+12.0%**	**+12.6%**	**12,398**	**-1.6%**	**-0.1%**
Cash sub-portfolio	953	+1.1%	+0.2%	893	+1.1%	+0.9%
TOTAL FINANCIAL PORTFOLIO	**15,233**	**+11.1%**	**+12.6%**	**13,291**	**-1.6%**	**-0.1%**
RTE shares allocated to dedicated assets	2,393	-	-	2,310	-	-
TOTAL DEDICATED ASSETS	**17,626**	**+10.4 %**		**15,601**	**-0.9%**	

(1) Benchmark index: 50% MSCI World DN EUR hedged for the equities sub-portfolio, Citigroup EGBI for the bonds sub-portfolio, Capitalised Eonia for the cash portfolio, 50% MSCI World DN EUR hedged + 50% Citigroup EGBI for the financial portfolio.

At the beginning of 2012 the Euro was in crisis, and this affected bond and equities markets in the Euro zone. When European countries and the Central European Bank showed their determination, including a willingness to provide support for countries in difficulty where necessary (support commitment to Spanish banks and the Greek state; announcement of Outright Monetary Translations by the central bank), the tense Euro zone bond markets saw significant improvements in liquidity and prices. Against this background, the investment policy consisted of regularly reinvesting in equities and bonds over the year. Reinvestment in the bond "class" focused particularly on credit, but also Italian sovereign debt instruments, with investments in certain sovereign debt instruments (Spain, Greece, Ireland, Portugal) remaining negligible. The effect of this approach was partly masked by reclassification of short-term credit instruments nearing maturity, previously included in the bonds sub-portfolio, as a component of the cash sub-portfolio. Reinvestment in the equities sub-portfolio also played a substantial role (this sub-portfolio accounted for 48.2% of the financial portfolio at 31 December 2012, compared to 43.5% in 2011).

In 2012 dedicated assets achieved a performance of +10.4%, with the financial portfolio (excluding RTE) registering +11.1%. The difference compared to the benchmark index performance (+12.6%) is explained by the prudent management approach, reflected in the large cash "class" and the underweighting in equities early in the year, together with a broader diversification of assets than in the benchmark index. Fund selection was also oriented to ensure that the volatility of the equities and bonds sub-portfolios was below the benchmark index volatility. The RTE shares have fulfilled their role as performance stabilisers both in times of market rises (2012) and falls (2011).

Against this background, the overall after-tax performance of dedicated assets (impact on reserves and net income) was +€1,101.4 million: +€948.1 million on the financial portfolio (+1,483.7 million before tax) and +€153.3 million for the RTE shares allocated to dedicated assets).

The distribution of the portfolio between reserved funds and other financial instruments is also presented in note 48 to the consolidated financial statements at 31 December 2012.

EDF is exposed to equity risks, interest rate risks and foreign exchange risks through its dedicated asset portfolio.

The market value of the "equities" sub-portfolio in EDF's dedicated asset portfolio was €7,343 million at 31 December 2012. The volatility of the "equities" sub-portfolio can be estimated on the basis of the volatility of its benchmark index, the MSCI World index, which at 31 December 2012 was 10.2% based on 52 weekly performances, compared to 19.1% at 31 December 2011. 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 €749 million. This volatility is likely to affect the Group's equity.

At 31 December 2012, the sensitivity of the "bonds" sub-portfolio (€6,937 million) was 5.06, i.e. a uniform 100 base point rise in interest rates would result in a €351 million decline in market value which would be recorded in consolidated equity. While this sensitivity was higher than in 2011 (4.81), it remained well below the sensitivity of the benchmark index (6.43).

1.6.1.7 Management of counterparty/credit 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 failed to perform its contractual obligations.

The Group has a counterparty risk management policy which applies to the parent company and all operationally controlled subsidiaries. This policy defines the organisation of counterparty risk management and monitoring, and reporting procedures and circuits. It involves monthly consolidation of the exposures on financial and energy markets and half-yearly consolidation for all activities. The policy also includes close supervision of Group counterparties (daily review of alerts, special cautionary measures for certain counterparties).

These supervision procedures proved their robustness during the financial crisis, when the Group moved to a more frequent (quarterly) consolidation of all counterparty risks. In late 2012 a consolidation system was introduced to make the process more reliable and more flexible.

The table below gives details, by rating, of the EDF group's consolidated exposure at the end of September 2012. 83% of the main counterparties for the Group's business qualify as "investment grade", a stable proportion overall compared to the consolidated risk at 30 September 2011.

	AAA	AA	A	BBB	BB	B	CCC/C	Unrated	Total
30/9/2012	7%	23%	39%	14%	2%	1%	1%	13%	100%
30/9/2011	9%	20%	45%	11%	2%	0%	0%	13%	100%

The exposure to counterparty risk by nature of activity is distributed as follows:

	Purchases	Insurance	Distribution and sales	Cash and asset management	Fuel purchases and energy trading	Total
30/9/2012	4%	38%	7%	39%	12%	100%
30/9/2011	4%	34%	7%	40%	15%	100%

Exposure in the energy trading activities is concentrated at EDF Trading. Counterparty risk management for this subsidiary has explicit limits for each counterparty according to its financial robustness. A range of means are used to reduce counterparty risk at EDF Trading, primarily position netting agreements, cash-collateral agreements and establishment of guarantees from banks or affiliates.

Particularly for counterparties dealing with EDF's Trading room, the Financial Risk Control team has drawn up a framework specifying counterparty authorisation procedures and the methodology for calculation of allocated limits (which must correspond to requirements). The level of exposure can be consulted in real time and is systematically monitored on a daily basis. The suitability of limits is reviewed without delay in the event of an alert or unfavourable development concerning a counterparty.

In the context of the Euro zone's financial crisis, EDF continued to apply a prudent management policy for its cash investments (EDF and cash pooling), particularly regarding countries such as Italy and Spain. Transactions are only authorised for "investment grade" Spanish and Italian banking counterparties considered systemic by the Financial Stability Council, meaning they have low risk of default, and the amounts and maturities of such transactions must be limited (no maturities beyond April 2013). EDF holds no direct investment in these countries' sovereign debt.

1.6.2 Management and control of energy market risks

1.6.2.1 Framework for management and control of energy market risks

In conjunction with the opening of the final customer market, development 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 statements.

Consequently, the Group has an "energy markets" risk policy (for electricity, gas, coal, oil products and CO_2 emission rights) applicable to EDF and entities in which it has operational control.

This policy aims to:

- define the general framework in which the various Group entities carry out their operational activities (energy generation, optimisation and distribution), and their interaction with EDF Trading;
- consolidate the exposure of the various entities controlled by the Group on the structured energy-related markets;
- implement a coordinated hedging policy at Group level.

At Edison, which is now operationally controlled by EDF, the energy market risk policy and associated control process will be introduced as part of Edison's integration into the EDF group. CENG, which was not operationally controlled by EDF at 31 December 2012, partly applies the EDF group's policy for energy market risks.

1.6.2.2 Organisation of risk control

The process for controlling energy market risks for entities operationally controlled by the Group is based on:

- a governance and market risk exposure measurement system, clearly separating management and risk control responsibilities;
- an express delegation to each entity, defining hedging strategies and establishing the associated risk limits. This enables the Group's Executive Committee (Comex) to set an annual Group risk profile consistent with the financial objectives, and thus direct operational management of energy market risks within the Group, generally over 3-year market horizon;
- a specific control process, given its close interaction with the decisions made within the generation and supply businesses. This process involves Group management and is based on a risk indicator and measurement system incorporating escalation procedures in the event risk limits are exceeded.

The Group's exposure to energy market risks through operationally controlled entities is reported to the Comex on a monthly basis. The control processes are regularly evaluated and audited.

1.6.2.3 Principles for operational management and control of energy market risks

The principles for operational management and control of energy market risks for operationally controlled entities and CENG are based on clearly-defined responsibilities for managing those risks, distinguishing between management of assets (generation and supply) and trading.

Managers of generation and supply assets are responsible for implementing a risk management strategy that minimizes the impact of energy market risks on their financial statements (the accounting classifications of these hedges are described in note 41 to the consolidated financial statements). However, a residual risk remains that cannot be hedged on the market due to factors such as insufficient liquidity or market depth, uncertainty over volumes, etc.

For operationally controlled entities in the Group, positions on the energy markets are taken predominantly by EDF Trading, the Group's trading entity, which operates on the markets on behalf of other group entities and for the purposes of its own trading activity. As such, EDF Trading is subject to a strict governance and control framework in line with current practices in trading companies.

EDF Trading trades on organised or OTC markets in derivatives such as futures, forwards, swaps and options (regardless of the accounting classification applied at Group level). Its exposure on the energy markets is strictly controlled through daily limit monitoring overseen by the subsidiary's management and by the entity in charge of energy market risk control at Group level. Automatic escalation procedures also exist to inform members of EDF Trading's Board of Directors of any breach of risk limits (value at risk limit) or loss limits (stop-loss limits). Value At Risk (VaR) is a statistical measure of the company's potential maximum loss in market value on a portfolio in the event of unfavourable market movements, over a given time horizon and with a given confidence interval. EDF Trading assesses VaR by the Monte Carlo method, which refers to historical volatilities and correlations estimated on the basis of market prices observed over the 40 previous trading days. The stop-loss limit stipulates the acceptable risk for the trading business by setting a maximum level of loss over a rolling three-month period. If the limit is exceeded, EDF Trading's Board of Directors takes appropriate action, which may include closing certain positions.

In 2012, EDF Trading's commitment on the markets was subject to a daily VaR limit of €45 million[1] (with a daily confidence interval of 97.5%), and a stop-loss limit of €225 million[2]. VaR fluctuated between €2.6 million and €19.1 million over the year.

The table below shows the VaR and stop-loss limits for 2012 and 2011:

(in millions of Euros)	**H2 2012**	**H1 2012**	H2 2011	H1 2011
VaR limit (97.5% 1-day)	45	45	45	45
Stop-loss limit	225	225	225	225
Minimum VaR	2.6	5.9	4.3	4.7
Average VaR	7.1	10.1	6.9	10.4
Maximum VaR	11.4	19.1	10.4	18.7

The VaR and stop-loss limits were not exceeded in 2012, even when market volatility was high in February, and EDF Trading's risks remained within the limits of the mandate from EDF at all times. The stop-loss has never been triggered since its introduction.

At Edison, the governance model[3] separates risk management and control from operational trading activities. For operational purposes, Edison calculates its net exposure[4] based on its entire portfolio of assets and contracts (industrial portfolio), other than those related to trading for the company's own purposes (trading portfolio).

The level of economic capital engaged in the markets, expressed in terms of Profit at Risk (PaR)[5], is then determined using this net exposure.

To meet obligations under IFRS 7, Edison measures the maximum potential decrease in the fair value of financial contracts hedging the risks on its industrial portfolio using a PaR with a confidence interval of 97.5%. For trading activities, which concern a separate portfolio distinct from the industrial portfolio, Edison sets a daily limit of 95% VaR. Like the industrial portfolio, Edison's trading portfolio was allocated an amount of economic capital[6]. This allocation takes account of the risks related to the portfolio's VaR and the risks estimated through stress tests on any non-liquid structured positions[7].

For an analysis of the fair value of the Group's commodity hedging derivatives, see notes 41.4.3 and 41.5 to the consolidated financial statements for the year ended 31 December 2012. For details of commodity contracts not classified as hedges by the Group, see note 42.3 to the same consolidated financial statements.

1.6.3 Management of insurable risks

The EDF group has an extensive insurance programme that covers EDF SA and controlled subsidiaries as they are integrated, including ERDF and RTE. The coverage, exclusions, excesses and limits are appropriate to each business and the subsidiaries' specificities.

The main insurance programmes cover:

- conventional damage to Group property: EDF is a member of OIL[8]. Additional insurance coverage is provided by EDF's captive insurance

1. *The VaR takes into account diversification of risks between the activities of EDF Trading and the activities of EDF Trading North America. This limit does not take into account the diversification associated with the joint venture Chubu, whose VaR limit of €2 million is added to EDF Trading's VaR limit of €43 million.*
2. *Five times the VaR, i.e. €225 million.*
3. *This model is being brought into line with the EDF group's policy.*
4. *Net exposure is the residual exposure after using all natural hedging options provided by vertical and horizontal integration of the various techniques.*
5. *Profit at Risk or PaR is a statistical measure of the maximum potential decline, related to unfavourable market movements, in the margin compared to budget for a given time horizon and confidence interval.*
6. *Economic capital is the capital allocated to deal with market risks.*
7. *Figures will be available when Edison has published its annual results.*
8. *Oil Insurance Limited Mutual Insurance Company.*

subsidiary Wagram Insurance Company Ltd[1], other insurers and reinsurers: RTE has taken out a conventional damages insurance programme specific to its own property (substations, buildings and technical premises).

- damage to merchandise transported;
- damage to the EDF group's nuclear facilities: in addition to coverage through EDF's membership of OIL, physical damage (including following a nuclear accident) to EDF's nuclear installations in France and EDF Energy's nuclear facilities in the United Kingdom, and nuclear decontamination costs are covered by a Group insurance policy involving the French nuclear pool (Assuratome), the British aromic pool National Risk Insurers (NRI) and the European Mutual Association for Nuclear Insurance (EMANI). In connection with CENG's operations in the United States, EDF Inc is a member of NEIL (Nuclear Electric Insurance Limited).
- nuclear operator's civil liability: EDF's current insurance policies comply with French law n° 68-943 of 31 October 1968, as amended by law n° 90-488 of 16 June 1990, which codified the civil liability obligations imposed on nuclear facility operators by the Paris Convention. To guarantee availability of the funds required to meet such obligations, EDF opted to use insurance policies. The cover provided by EDF's policies with Allianz and the European Liability Insurance for the Nuclear Industry (ELINI) is equal to the limits of liability set by law in the event of an accident, whether at a nuclear facility or during transport.

  For onsite accidents, total cover is €91.5 million per nuclear accident, for a maximum of two occasions per site within a three-year period. In accordance with the law, these insurance policies purchased do not include an excess amount. However, Océane Re, a Group reinsurance company, shares this risk through reinsurance agreements entered into with Allianz and ELINI.

  EDF Energy operates nuclear plants in the United Kingdom, where the liability scheme applicable to operators of nuclear facilities is similar to that in France. EDF Energy is insured with Nuclear Risk Insurers Limited (NRI), the British nuclear insurance pool, to the extent of £140 million, the current limit for civil liability applicable to nuclear plant operators in the United Kingdom.
- general civil liability: this programme covers the Group against the possible financial consequences for third parties of the (non-nuclear) risks inherent to the EDF group's businesses;
- civil liability of directors and senior executives: EDF's insurance programme covers the Group's directors and chief executive officers;
- construction risks: for these risks, EDF takes out insurance policies covering specific worksite risks (general worksite risks/general assembly risks). These policies are not part of a Group programme but are purchased on an ad hoc basis for major projects such as the Flamanville EPR, or construction of combined cycle power plants, dams, combustion turbines, etc. This cover, amounting to €11 million, is recorded as an investment in the EDF SA financial statements;
- On 11 August 2011 ERDF took out a policy with Natixis/Swiss-Re for coverage of ERDF's aerial distribution network against the consequences of exceptional events such as storms and gales. This "cat-bond" provides maximum cover of €150 million, with payouts based on a parametric index dependent on wind speed. On 27 December 2011, additional €40 million coverage was subscribed for a four-year period, to reduce the excess. The arrangements for setting up damage insurance for the Island Energy Systems' aerial distribution networks are still under examination.

The total value of premiums for all types of coverage provided by EDF's insurance programmes and Group programmes managed by EDF Assurances was €111 million in 2012, of which €62 million was borne by EDF (excluding investments) and €18 million was for coverage of ERDF's overhead networks.

1.7 Transactions with related parties

Details of transactions with related parties can be found in note 49 to the consolidated financial statements at 31 December 2012.

1.8 Principal risks and uncertainties

The principal risks and uncertainties to which the EDF group considers itself exposed are described in section 4.1 of the 2012 reference document.

The EDF group policies for risk management and control are described in section 4.2 of the 2012 reference document.

This presentation of the major risks describes the principal risks and uncertainties affecting the Group. The Group remains subject to the usual risks specific to its business.

1.9 Significant events related to litigation in process

Litigations concerning the EDF group are described in section 20.5 of the 2012 reference document. This chapter reports on litigations which have seen significant developments since the release of the 2011 reference document and the half-year financial report of 2012.

1.9.1 Proceedings concerning EDF

Greenpeace

A preliminary investigation was initiated in February 2009 before the Nanterre Criminal Court for "complicity and concealment of invasion of an automated data processing system" after a computer expert from a non-Group company claimed that in 2006 he had hacked into the computer used by former Greenpeace spokesman, Mr Yannick Jadot, at the request of an EDF employee. The said employee and his supervisor were formally placed under investigation on 24 March and 10 June 2009 respectively, and were subject to disciplinary transfers. EDF was placed under investigation on 26 August 2009. EDF and the two employees were found guilty on 10 November 2011.

In a ruling of 6 February 2013, the Versailles Court of Appeal acquitted EDF and the supervisor. The guilty verdict was upheld for the other employee, who received a 6 month prison sentence. In the civil proceedings, the same employee was ordered to pay compensation to Greenpeace and Yannick Jadot for the moral prejudice caused. The employee concerned, Greenpeace and Yannick Jadot have all lodged an appeal.

1. *An Irish insurance company fully-owned by EDF.*

Verdesis

In June 2008, Euro Power Technology filed a complaint and a request for protective measures with the the French Competition Authority (*Autorité de la Concurrence*) against EDF and its subsidiary, Verdesis, concerning the two companies' biofuel activities. On 16 April 2010, the complaint was dismissed by the Competition Authority.

On 26 April 2010, Euro Power Technology lodged an appeal against this decision before the Paris Court of Appeal, which was rejected on 2 December 2010. Euro Power Technology then lodged a further appeal with the *Cour de Cassation* on 28 December 2010. On 9 October 2012, this court rejected the appeal. By virtue of this ruling, the Competition Authority's decision of 16 April 2010 dismissing Euro Power Technology's appeal is final and the dispute is closed.

Packaging and interim storage installation for radioactive waste (ICEDA)

A decree of 23 April 2010 authorised EDF to open a regulated nuclear installation, a conditioning and interim storage installation for radioactive waste (ICEDA), in the town of Saint-Vulbas, in the Ain département. Two petitions for cancellation of the decree were filed with the French Council of State in June 2010, one by Roozen, a horticultural company operating near the site, and the other by a group of environmental protection associations. As of the date of the filing of this report, the investigation is still pending with the French Council of State. A third petition for cancellation of the decree was filed in April 2012 before the Council of State by the city of Geneva.

Roozen also filed a petition with the Lyon Administrative Court on 21 April 2010 seeking cancellation of the building permit. In a judgment of 13 December 2011, the Administrative Court cancelled the building permit due to violation of the local zoning plan. EDF lodged an appeal with the Lyon Administrative Court of Appeal. After this court confirmed cancellation of the building permit in a ruling of 19 June 2012, EDF filed a further appeal before the Council of State in August 2012.

The town of Saint-Vulbas initiated a review of its local zoning plan together with stakeholders, and EDF filed a new building permit application.

Roozen applied for an emergency injunction to suspend the zoning plan. The Judge at the Lyon Administrative Court dismissed this application on 14 January 2013 on the grounds that there was no urgency.

Flamanville

On 15 November 2006, EDF applied to France's Nuclear Safety Authority (ASN) for authorisation to draw and discharge liquid and gas effluents for the Flamanville nuclear power plant in north-west France. This application covered drawings and discharge by the two existing reactors on the site (Flamanville 1 and 2), and the future EPR-type reactor (Flamanville 3) currently under construction.

The ASN set the limits for discharge of liquid and gas effluents into the environment for operation of the three reactors in a decision of 7 July 2010, approved by the ministers in charge of nuclear safety on 15 September 2010.

A local association CRILAN filed a petition for cancellation of this decision with the Caen Administrative Court on 23 March 2011.

In an order of 20 July 2012, the President of the Caen Administrative Court referred the case to the Council of State. The Court considered that CRILAN's petition did not concern the ministerial approval but the ASN's decision of 7 July 2010, and under article R.351-2 of the French code of Administrative Justice, the Council of State is competent for appeals against ASN decisions. EDF and the State are required to file their defence statements by June 2013.

Labour litigation

EDF is party to a number of labour lawsuits with employees and employment inspectors, primarily regarding the calculation and implementation of the legislation on working hours. 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, any increase in such litigations could present a risk with a potentially significant, negative impact on the Group's financial results.

The number of litigation cases relating to application of French employment law is currently small, but there is a noticeable development in cases brought before the criminal courts, although so far this has been limited to a few nuclear power plants.

The Group is also party to a number of litigations with social security bodies. The main such dispute is between EDF and the URSSAF (which collects French social security contributions) and concerns inclusion of certain bonuses, indemnities and other benefits in kind in the bases for calculation of social security charges.

European Commission investigation into a price rise on the wholesale electricity market

In March 2009 the European Commission conducted unannounced inspections at EDF premises, as part of an investigation into price movements on the French wholesale electricity market.

The Commission closed the case in September 2012.

Arbitration following termination of a gas supply contract

On 1 August 2012, EDF received a demand for arbitration filed with the International Chamber of Commerce by one of its gas suppliers, who is challenging EDF's termination of a 4-year natural gas supply contract that still had one year to run. It values its claim at €100 million. EDF considers that the conditions for terminating the contract were fulfilled, and consequently that this claim is unfounded. The arbitration tribunal heard the case in January 2013 and its decision will be issued in the second half of 2014.

Nest-Énergie

In a decision of 12 November 2009 authorising EDF's takeover of EDF Luminus (named SPE at the time), the European Commission made it a requirement that EDF should continue developing a CCG plant project through the company Nest-Énergie, and divest the project if no final investment decision was made by the deadline of 30 June 2012.

On 14 May 2012 EDF filed an application for extension of this deadline, in view of the significant, long-term changes in the economic, political and regulatory situation specific to the energy markets in Belgium since the authorisation decision was issued in 2009. The Commission rejected this application on 28 June 2012 and granted a very short extension, considering it unnecessary to take changes in the Belgian market environment into consideration.

EDF lodged an appeal with the European General Court against this decision on 5 September 2012, together with an application for accelerated processing of the proceedings and for protective measures. On 30 November 2012 it filed an appeal before the Court of Justice of the European Union against the European General Court's order of 16 October 2012 rejecting the application for protective measures. The appeal for cancellation is also still pending before the court, and rulings should be given on both appeals during the first half of 2013.

Also on September 2012, EDF filed a request with the European Commission to have its commitment regarding Nest-Énergie waived, on the grounds of the significant, long-term changes in the economic, political and regulatory situation specific to the energy markets in Belgium. This request is under examination and a decision should be issued during the first half of 2013.

In keeping with its commitment, EDF initiated the divestment process of Nest-Énergie on 16 October 2012. The outcomes of the proceedings described above could have an effect on the divestment process.

SUN'R

On 21 June 2012, solar power electricity company Sun'R filed a complaint and an application for protective measures with France's Competition Authority (*Autorité de la Concurrence*), alleging that ERDF was responsible for delays in the procedure for connecting to its photovoltaic facilities, and EDF was responsible for delays in execution of purchase obligation contracts and settlement of the associated bills. Sun'R also alleges that EDF ENR was given special treatment by ERDF for the connection of its facilities, and by EDF regarding settlement of bills. The *inter partes* proceeding began on 16 November 2012. The discussion before the Competition Authority concerning the admissibility of the case and the possibility of granting protective measures took place on 23 January 2013. EDF and ERDF are formally contesting these allegations.

Meanwhile, Sun'R made an emergency application before the Paris Administrative Court on 29 August 2012 for an independent expert assessment and advance on indemnity, claiming provisional indemnities of €1 million from EDF and €2.5 million from ERDF. This application was refused in an order of 27 November 2012 by the Judge of the Paris Administrative Tribunal.

Litigation with photovoltaic producers

The announcement by the French authorities in autumn 2009 of a coming downward adjustment to the photovoltaic electricity purchase prices set by the order of 10 July 2006, triggered an enormous increase in requests for purchase contracts, likely to generate a very significant increase in costs to be compensated by the CSPE. A series of ministerial decisions was issued after this announcement, changing both the tariffs and terms of purchase obligations for electricity generated from photovoltaic sources. Through a decree of 9 December 2010, the French government suspended these purchase obligations for a three-month period, and a decision of 4 March 2011 set new terms to apply after the end of the moratorium. Several producers then decided to bring proceedings with the aim of benefiting from the more favourable tariff set by the previous order of 10 July 2006, or seeking exemption from the suspension.

The most significant dispute concerned the Green Yellow companies, some twenty subsidiaries of the Casino group, which gave rise to two rulings by the Conflicts Tribunal and two by the Commercial Court on 11 July 2011 and 29 June 2012. This last ruling is now final and the litigation is terminated.

In Corsica and French overseas territories where EDF is also the network operator, around twenty producers have also filed claims for indemnities, in compensation for the income they claim was lost due to delays in connection procedures that allegedly resulted in them being subject to the suspension of purchase obligations.

Tax disputes

In 2008 and 2009 EDF underwent a tax inspection covering the tax years 2004, 2005 and 2006.

One of the grounds for reassessment concerns the tax-deductibility of the provision for annuities following work-related accidents and illness; as this is an issue that relates to the special gas and electricity (IEG) statutes, it also concerns RTE, ERDF and Électricité de Strasbourg. The Group is contesting the tax authorities' position on the deductibility of this provision. In late 2011 the National Commission of direct taxes and sales taxes issued an opinion supporting EDF's position on the principal grounds for reassessment arising from the inspection of the years 2004 to 2006, notably confirming the deductibility of the provision for annuities following work-related accidents and illness. If the outcome of this dispute is unfavourable, the financial risk for the Group (payment of back income taxes) could amount to some €250 million.

The reassessment demand was sent to the Company in late 2011. A complaint applying for suspension of this demand was sent to the tax administration in 2012 to initiate the formal dispute procedure, but no answer had been received by the end of the year.

During 2010, a further inspection was begun of the years 2007 and 2008, and in late 2011 EDF was notified of a proposed rectification for 2008. EDF is contesting most of the tax reassessments, amounting to approximately €900 million, concerning deductibility of certain long-term liabilities. The administration confirmed these reassessments in 2012. The Company considers it is likely to win this dispute, and no provision has been established for the principal grounds for tax reassessment.

The tax administration has also proposed a reassessment following inspections of 2008 and 2009, concerning an interest-free advance made by EDF to its indirect subsidiary Lake Acquisitions Ltd in connection with the acquisition of British Energy. EDF is contesting this reassessment.

Finally, 2012 saw the start of another inspection of the accounts for 2009 and 2010. Late in the year the Company received a proposed rectification, of a non-significant amount, for 2009. EDF is contesting this proposal.

1.9.2 Proceedings concerning EDF subsidiaries and investments

1.9.2.1 ERDF

Cancellation of the TURPE 3 decision

On 28 November 2012, the Council of State announced the cancellation of the decisions of 5 May and 5 June 2009 concerning the TURPE 3 distribution network access tariff.

The grounds for cancellation concerned the method used to calculate weighted average cost of capital (WACC): the Council of State judged this method "an error in law" because it does not take account of "the special concession accounts, which correspond to the grantor's rights to recover concession assets for no consideration at the end of the contract (…) and the provisions for renewal of assets".

This cancellation will be effective from 1 June 2013. In the meantime, the CRE (French energy regulator) must propose new distribution tariffs for approval by the French ministers of the economy and energy, taking into account the decision of the Council of State, and these tariffs will replace the cancelled tariffs retroactively. The new tariff decision is currently in preparation.

Litigations with photovoltaic producers

Photovoltaic installations benefit from an obligation incumbent on EDF (or local distribution companies) to purchase the electricity they generate on terms defined by public regulations that have so far provided an incentive for photovoltaic energy. This system encouraged early development of photovoltaic power in France, but the resulting pace of growth in the sector was considered too fast, and the French government followed up a series of decisions lowering the purchase tariffs (12 January, 16 March, and 31 August 2010) by a "moratorium decree" on 9 December 2010: this decree suspended conclusion of new contracts for a three-month period and stipulated that applications for which the technical and financial proposals had not been adopted by 2 December 2010 would have to be resubmitted after that three-month period, based on a photovoltaic power purchase tariff set in a new decision. This decision was issued on 4 March 2011 and significantly reduced the purchase price for photovoltaic electricity.

In anticipation of the coming tariff changes, there was an upsurge in the number of applications from photovoltaic operators for connection received by ERDF's units, particularly in August 2010. Despite the significant measures taken to process these applications, ERDF was not always able to issue technical and financial proposals in time for the power generators to benefit from the pre-4 March 2011 tariffs.

A Council of State decision of 16 November 2011 rejecting appeals against the moratorium decree of December 2010 generated a large volume of legal proceedings against ERDF in November and December 2011, and also, although at a slower pace, throughout 2012. Most actions were initiated by generators who found themselves forced to abandon their projects because the new electricity purchase tariffs made operating conditions less favourable; they consider ERDF responsible for this situation since it did not issue the technical and financial connection proposals in time for them to benefit from more advantageous electricity purchase terms. ERDF considers that it cannot be held liable, and has lodged appeals against the small number of first instance rulings against it issued in 2011 and 2012.

1.9.2.2 EDF International

Tax dispute

The tax inspection of EDF International for the years 2008 and 2009 led to a proposed rectification received in late 2011. Two main reassessments amounting to some €135 million concerned the amount of the loss on the contribution of CEG shares to the American subsidiary EDF Inc, which arose in late 2009 and was deducted from EDF International's income, and the valuation of the bond convertible into shares issued to refinance the acquisition of British Energy. In 2012 EDF International contested these reassessments, and considers it has good chances of winning the dispute. In late 2012 EDF International began amicable proceedings, involving France and the USA and based on the US-France tax treaty, concerning the valuation of CEG shares at the time of the contribution.

1.9.2.3 EDF Énergies nouvelles

Silpro

Silpro (Silicium de Provence) entered court-ordered liquidation on 4 August 2009. The EDF ENR group held a 30% minority interest in Silpro alongside the principal shareholder, the German company Sol Holding. On 30 May 2011, the liquidator ordered the shareholders and managers of Silpro to jointly repay the shortfall in assets resulting from Silpro's liquidation, which amounts to €101 million. After examining the situation, the Group does not consider it necessary to recognise a provision.

1.9.2.4 Edison

Carlo Tassara

Carlo Tassara, a company that is Edison's largest minority shareholder, initiated action on 12 July 2012 before the Lazio (Rome) Regional Administrative Court, seeking an increase in the price of the mandatory tender offer for Edison shares launched by EDF's subsidiary Transalpina di Energia (TdE) after the takeover of Edison on 24 May 2012. This action was brought against the Italian financial market authority CONSOB, EDF and its Italian subsidiaries (MNTC, WGRM4 and TdE), Edison, Delmi and A2A. No date has yet been set for the court hearing, and any ruling would be open to appeal before the Italian Council of State.

In parallel, in May 2012 Carlo Tassara submitted an application to the CONSOB for an increase in the price of the mandatory tender offer, based on practically identical arguments to those used in the proceedings on the substance of the matter before the Administrative Court. The CONSOB rejected this application on 25 July 2012, and no appeal was made.

EDF considers that Carlo Tassara has not provided any evidence to challenge the offer price as confirmed by the CONSOB, and that these proceedings are unfounded.

1.9.3 Proceedings after the year-end

No other significant litigation has arisen since 31 December 2012.

1.10 Subsequent events

Details of post balance sheet events can be found in note 51 to the consolidated financial statements at 31 December 2012.

1.11 Financial outlook

In view of the less favourable economic environment, the Group has set itself the following financial objectives for 2013:

- growth in EBITDA[1] of between 0% and 3% (excluding Edison);
- for Edison, the timetable for renegotiation of gas supply contracts should generate high volatility in results between 2013 and 2014, but EBITDA excluding non-recurring items should remain in line with EBITDA for 2012;
- net indebtedness/EBITDA ratio of between 2x and 2.5x;
- a dividend distribution rate for the period of between 55% and 65% of net income excluding non-recurring items.

These financial objectives are mainly founded on:

- a new purchase optimisation plan, which will have an effect on operating expenses as well as investments, achieving savings of €1 billion as soon as 2013;
- stable net investments at €12 billion.

The EDF group is continuing action to address a certain number of issues in 2013 that are key factors for the Group's financial equilibrium.

The Group will carry out a detailed review of its medium-term financial trajectory by the end of 2013.

1. *Growth based on constant scope of consolidation and exchange rates.*

1.12 Information on EDF's capital and governance bodies

1.12.1 Capital

1.12.1.1 Changes in the capital

At the date of this document, EDF's share capital totals €924,433,331 divided into 1,848,866,662 fully subscribed and paid-up shares with nominal value of €0.50 each.

The Company has not issued or authorised any preference shares.

1.12.1.2 Capital structure and voting rights

At the date of this document, EDF's share capital consists of registered or bearer shares which must at all times be held at least 70% by the French State, pursuant to article L.111-67 of the French Energy Code.

These shares are freely negotiable subject to the laws and regulations in force and the statements below, and their sale or transfer is not restricted by any statutory provision.

To the best of the Company's knowledge, no restriction approved by a member of the Board of Directors exists concerning transfer of his shares within a certain time period, except for restrictions resulting from the Company's code of trading ethics.

Shares held through investment funds under the EDF group's corporate savings plan invested in EDF shares, or shares acquired from the State in application of privatisation laws, are subject to the unavailability or non-transfer rules resulting from the special provisions applicable to such operations.

Each share entitles the holder to one vote, and at the date of this document, there is no statutory restriction on the exercise of voting rights by shareholders.

At the date of this document, to the Company's knowledge no shareholder agreement concerning EDF shares has been concluded.

1.12.1.3 Shareholding structure and thresholds

At 31 December 2012, EDF's shareholding structure was as follows:

- French State: 84.44%;
- institutional and private investors: 13.59%;
- employees: 1.85%
  - incl: employee investment fund[1]: 1.57%;
- treasury shares: approximately 0.12%;
- total number of shares: 1,848,866,662.

1.12.1.4 Treasury shares

No EDF share is to be attributed to employees under the employee profit-share plan.

Liquidity contract

With effect from 24 July 2012, EDF terminated its liquidity contract with Crédit Agricole Cheuvreux signed on 1 June 2006 and renewed by tacit agreement every year since. The initial sum of €35 million was allocated to execution of the liquidity contract. At the contract termination date, the liquidity account contained 1,350,000 EDF shares and €4,408,111.48 in cash.

From 25 July 2012, EDF engaged Oddo Corporate Finance to implement a new liquidity agreement that complies with the Charter of Ethics of the *Association Française des Marchés Financiers* (AMAFI) as approved by the French market authority AMF. The following assets were allocated to this liquidity contract: 1,350,000 EDF shares transferred from the former liquidity contract and €50 million in cash.

In 2012, EDF paid the following commissions on its liquidity contracts:

- €92,852 to Crédit Agricole Cheuvreux;
- €34,849.32 to Oddo Corporate Finance.

Information on transactions undertaken by the company on its own shares in 2012 under a share repurchase programme (repurchase programmes authorised by the shareholders at the General Meeting of 24 May 2012):

Number of shares purchased and sold in 2012:

During the year 2012, EDF purchased 8,398,898 of its own shares and sold 7,413,159 shares under its liquidity contract. The average purchase price was €15.94 per share, and the average sale price was €15.95 per share.

Value of the portfolio of treasury shares at 31 December 2012:

2,161,333 shares were registered in the company's name at 31 December 2012.

These shares represented approximately 0.12% of the share capital at 31 December 2012.

The book value of these shares at 31 December 2012 (based on purchase price) was €33,068,975 and their nominal value was €1,080,667.

The market value of the portfolio at that date (based on the closing market price of €13.98 at 31 December 2012) was €30,215,435.34.

Allocation of the portfolio at 31 December 2012:

At 31 December 2012, the portfolio consists of 2,110,739 shares held for the purposes of the liquidity contract (0.1142% of the share capital) and the balance of 50,594 shares (0.0027% of the share capital) acquired on the market for attribution to employees under the "ACT 2007" free share plan, but not attributed to employees.

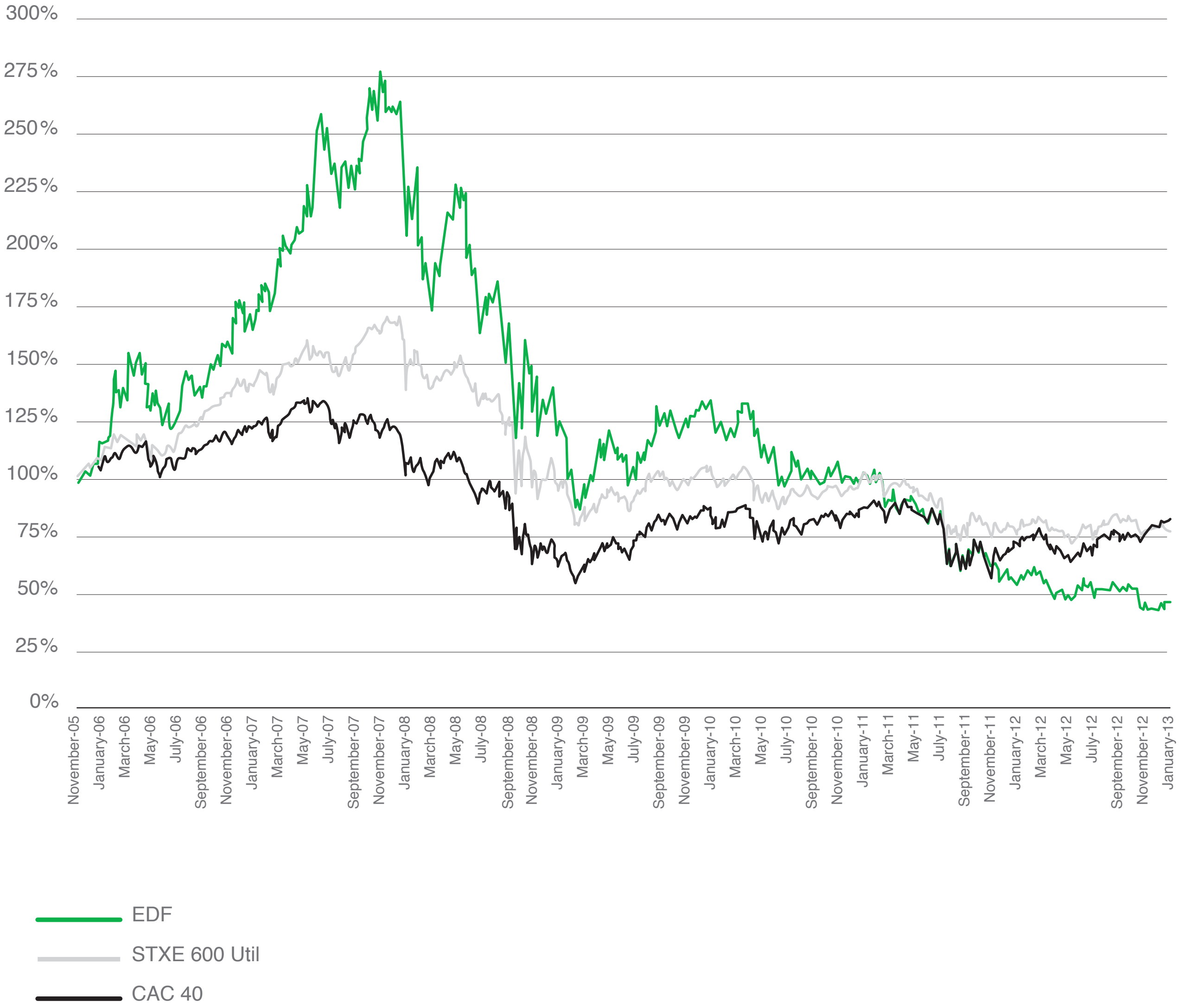
No shares were reallocated to other repurchase programme purposes in 2012.

1. *Company investment fund invested in EDF shares.*

1.12.1.5 Share price[1]

Movements in the EDF share price, which is part of the CAC 40 index, were as follows from its initial listing on 21 November 2005 up to 31 January 2013:

EDF share price from the IPO to 31 January 2013



From 2 January 2012 to 31 January 2013, the EDF share price declined by 24.8%, the Euro Stoxx Utility index declined by 3.4%, and the CAC 40 rose by 18.1%.

At 31 January 2013, the EDF share price at close of business was €14.145 (€19.240 at 2 January 2012). Its lowest closing price during the period was €13.66 on 6 December 2012, and the highest closing price was €19.60 on 2 March 2012.

EDF's market capitalisation at 31 January 2013 was €26.152 billion.

1. *Source: Bloomberg.*

1.12.1.6 Authorisations to issue shares

The following table summarizes the authorisations to increase or reduce the capital in force at 31 December 2012 granted to the Board of Directors by EDF's shareholders at their General meetings of 24 May 2012 and details of their utilisation at the same date:

Securities concerned / type of emission	Duration [1] of the authorisation and expiry date	Maximum total nominal value of the capital increase *(in millions of Euros)*	Utilisation of authorisations *(in millions of Euros)*
Delegation of authority to the Board to increase the capital, maintaining the shareholders' preferential subscription right Capital increase comprising all types of securities	26 months 24 July 2014	45 [2]	none
Delegation of authority to the Board to increase the capital, with no preferential subscription rights for shareholders Capital increase comprising all types of securities	26 months 24 July 2014	45 [2]	none
Delegation of authority to the Board to make private placement offering [3] with no preferential subscription rights for shareholders Capital increase comprising all types of securities	26 months 24 July 2014	45 [2]	none
Authorisation to the Board to increase the number of shares to be issued in the event of a capital increase with or without preferential subscription rights Capital increase comprising all types of securities	26 months 24 July 2014	15% of the initial issue	none
Delegation of authority to the Board to increase the capital by capitalisation of reserves, profits, premiums or other amounts eligible for capitalisation	26 months 24 July 2014	1,000	none
Delegation of authority to the Board to increase the capital as a result of an exchange offer instigated by EDF	26 months 24 July 2014	45 [2]	none
Authorisation to the Board to increase the capital in return for contributions in kind [4]	26 months 24 July 2014	10% of the company's share capital up to a maximum of 45 [2]	none
Delegation of authority to the Board to increase the capital to the benefit of members of an EDF group savings plan Offerings reserved for employees	26 months 24 July 2014	10	none
Authorisation to the Board to reduce the capital by cancelling treasury shares	26 months 24 July 2014	10 % of the capital per 24-month period	none

(1) From 24 May 2012, date of the shareholders' meeting.

(2) The nominal €45 million overall limit for the capital increases applies to all capital increases except for capital increases by capitalisation of reserves, premiums, profits, or other amounts eligible for capitalisation, and capital increases reserved for members of a savings plan.

(3) Offerings covered by article L.411-2 II of the Monetary and Financial Code intended solely for people supplying portfolio management and investment services to third parties or for qualified investors, or for a small circle of investors acting on their own behalf.

(4) Article L. 225-147 of the commercial code.

1.12.1.7 Scope of consolidation

A list of all consolidated companies is included in the notes to the 2012 consolidated financial statements.

1.12.2 Rules applicable to changes of bylaws

Under the French commercial code and article 20-4 of the bylaws, only an extraordinary General Shareholders' Meeting has the power to change the bylaws.

However, it is not entitled to increase shareholder commitments, except for operations resulting from reverse share splits carried out under the proper procedures.

Subject to the laws applicable to capital increases by capitalisation of reserves, profits or issue premiums, the meeting can only validly take decisions if the shareholders present, represented or voting by correspondence own at least one quarter on the first call, and at least one fifth on the second call, of shares carrying voting rights. If this quorum is not met, the second meeting may be postponed to a date no later than two months after the date the meeting was initially called for.

Subject to the same requirement, decisions at the extraordinary meeting require a two thirds majority of shareholders present, represented or voting by correspondence.

1.13 Corporate governance

Corporate governance is described in detail in chapter 16 of the 2012 Reference Document.

1.13.1 Board of Directors

During 2012 the Board of Directors met 9 times, and the Committees held 27 preparatory meetings. The Board also met once for a strategic seminar.

The attendance rate at meetings of the Board of Directors was 89.5% on average in 2012.

1.13.1.1 Members of the Board of Directors

In compliance with article 6 of the Law of 26 July 1983 on the democratisation of the public sector, the Board of Directors has eighteen members: one third of members are elected by employees and two thirds are appointed by the shareholders after nomination by the Board of Directors, apart from members representing the French government who are appointed by decree.

There are now 4 women among the 18 members of the Board of Directors, or 22.2% for all categories of director.

At 31 December 2012, the Board of Directors consisted of the following Directors[1], presented by category:

Directors appointed by the General Shareholders' Meeting:

Henri Proglio

Date of birth: 29 June 1949
Chairman and CEO of EDF since November 2009
Chairman of the Boards of Directors of Edison and EDF Energy Holdings
President of the governing boards of Fondation EDF and Electra association

Director of EDF Énergies Nouvelles
Director of EDF International (SAS)

Director of CNP Assurances, Dassault Aviation, Fomento di Construcciones y Contratas, Natixis, South Stream Transport BV (Netherlands) and South Stream Transport AG (Switzerland)

Vice-President of France's Strategic Nuclear Energy Committee

Member of the Atomic Energy Committee, the High Committee for transparency and information on nuclear safety and the National Committee for Business Sectors of vital importance

Director of the European Foundation for the Energies of Tomorrow

Director of EDF since September 2004

Philippe Crouzet

Date of birth: 18 October 1956
Chairman of the Supervisory Board of Vallourec
Director of EDF since November 2009

Mireille Faugère

Date of birth: 12 August 1956
General Manager of Assistance Publique – Hôpitaux de Paris
Director of Essilor International and Fondation L'Oréal
Vice-President of the Association HEC committee
Director of EDF since November 2009

Michael Jay

Date of birth: 19 June 1946
Crossbench member of the British House of Lords, Chairman of the House of Lords Appointments Commission and member of its EU Sub-Committee on foreign, defence and development policy
Director of Associated British Foods, Candover Investments and Valeo
Chairman of Merlin (International medical NGO)
Director of EDF since November 2009

Bruno Lafont

Date of birth: 8 June 1956
Chairman and CEO of Lafarge
Director of Arcelor-Mittal and Lafarge Shui On Cement
Member of business school HEC's Advisory Board
Advisor to the Mayor of Chongqing (China)
Director of EDF since May 2008

Pierre Mariani

Date of birth: 6 April 1956
Member of the Board of Directors of Dexia Asset Management
Managing Director and Chief Executive Officer of Pierre Mariani Consulting
Director of Établissement public de la Réunion des Musées Nationaux et du Grand Palais
Director of EDF since November 2009

Directors representing the French government, appointed by decree:

David Azéma

Date of birth: 22 November 1960
Equity investments Commissioner at the French Ministry of the Economy and Finance and the Ministry of productive recovery
Director of Air France-KLM, Fonds Stratégique d'Investissement and Renault
Member of the Supervisory Board of AREVA
Member of the Scientific committee of La Fabrique de la Cité
Director of EDF since 9 November 2012

Julien Dubertret

Date of birth: 9 June 1966
Director of the National Budget for the Ministry of the Budget, Public Accounts and State reform
Director of SNCF
Director of EDF since June 2011

Yannick d'Escatha

Date of birth: 18 March 1948
Chairman of the government space policy agency Centre National d'Études Spatiales (CNES)
Chairman of the Board of Directors of Troyes University of Technology
Permanent representative of the CNES on the Board of Arianespace SA and Arianespace Participation
Director of Thalès
Member of the Academy of Technologies
Director of EDF since November 2004

Marie-Christine Lepetit

Date of birth: 27 August 1961
Head of the General Finance Inspectorate at the Ministry of the Economy and Finance
Director of EDF since 7 May 2012

1. *Section 14.1 of the 2012 reference document.*

François Loos

Date of birth: 24 December 1953
Chairman and CEO of ADEME
Member of the Supervisory Board of Euler Hermes
Director of Atesys, Caisse du Crédit Mutuel de Zinsel du Nord, Alsace Amorçage, Alsace Création, Agence de l'Investissement International, GSE and Oseo Région
Director of EDF since 13 February 2012

Pierre Sellal

Date of birth: 13 February 1952
Secretary General of the Ministry of Foreign Affairs
Member of the Supervisory Board of AREVA
Member of the Atomic Energy Committee and the High Council of the Institut du monde arabe
Director of École Nationale d'Administration, Audiovisuel extérieur de France, Institut Français, Agence nationale des titres sécurisés, Commission de récolement des dépôts d'Œuvres d'art and Établissement de préparation et de réponse aux urgences sanitaires
Director of EDF since April 2009

Directors elected by the employees:

Christine Chabauty

Date of birth: 19 July 1971
Commercial attachée for Major Accounts at EDF's Sales Division
Member of an industrial tribunal
Director of EDF since November 2009, sponsored by the CGT union

Alexandre Grillat

Date of birth: 8 December 1971
Director of Studies for ERDF's General Manager in Alsace-Franche Comté
Director of EDF since September 2004, sponsored by the CFE-CGC union

Philippe Maïssa

Date of birth: 21 November 1949
Engineer at EDF's Fossil-fired engineering center
Director of EDF since November 2009, sponsored by the CGT union

Marie-Hélène Meyling

Date of birth: 30 October 1960
Attachée at EDF's Upstream/Downstream Optimisation and Trading division
Director of EDF since September 2011, sponsored by the CFDT union

Jean-Paul Rignac

Date of birth: 13 May 1962
Research engineer at EDF's Research and Development division
Director of EDF since November 2007, sponsored by the CGT union

Maxime Villota

Date of birth: 25 November 1959
Purchase policy coordinator at the Finance and Industrial relations mission, Tricastin nuclear electricity generation centre
Director of EDF since December 2006, sponsored by the CGT union

The following directors were appointed during the year:

By a decree of 13 February 2012, François Loos, Chairman of the French Environment and Energy Management Agency (ADEME – *Agence de l'environnement et de la maîtrise de l'énergie*) was appointed as a director of EDF representing the French State, replacing Philippe Van de Maele.

By a decree of 7 May 2012, Marie-Christine Lepetit, Head of the General Inspectorate of Finances, was appointed as a director of EDF representing the French State, replacing Pierre-Marie Abadie. At the Board of Directors' meeting held on 24 May 2012, Mme Lepetit was made a member of the Strategy Committee, the Nuclear Commitments monitoring committee and the Ethics Committee.

By a decree of 9 November 2012, David Azéma, Equity investments Commissioner, was appointed as a director of EDF representing the French State, replacing Jean-Dominique Comolli. At the Board of Directors' meeting held on 22 November 2012, M. Azéma was made a member of the Audit Committee, the Strategy Committee, and the Appointments and Remunerations Committee.

The French decree 2012-406 of 23 March 2012 introduced a Government commissioner for EDF's Board of Directors. The Government commissioner attends meetings of the Board and its Committees in a consultative capacity, and may present observations at Shareholders' Meetings.

By a decision of 15 June 2012 Pierre-Marie Abadie, Director of Energy at the General division for Energy and Climate for the French Minister of Ecology, Sustainable development and energy, was appointed Government commissioner to EDF.

The directors whose term of office ended during 2012 were:

Pierre-Marie Abadie

Director of EDF from August 2007 to May 2012, replaced by Marie-Christine Lepetit on 7 May 2012

Jean-Dominique Comolli

Director of EDF from September 2010 to November 2012, replaced by David Azéma on 9 November 2012

Philippe Van de Maele

Director of EDF from November 2009 to February 2012, replaced by François Loos on 13 February 2012

1.13.1.2 The Board of Directors' Committees

To carry out its duties, the Board of Directors has set up five committees whose members are directors selected by the Board. These committees are:

The Audit Committee

The Audit Committee is chaired by Pierre Mariani, an independent director appointed by the shareholders who is external to the EDF group. The committee's other members are David Azéma and Yannick d'Escatha, directors representing the state, and the employee-elected directors Marie-Hélène Meyling, Alexandre Grillat and Maxime Villota.

The Nuclear Commitments Monitoring Committee

The Nuclear Commitments Monitoring Committee is chaired by Philippe Crouzet, an independent director appointed by the shareholders who is external to the EDF group. The committee's other members are Marie-Christine Lepetit and Yannick d'Escatha, directors representing the state, and the employee-elected directors Marie-Hélène Meyling and Maxime Villota.

The Strategy Committee

The Strategy Committee is chaired by Henri Proglio, Chairman and CEO of EDF. The committee's other members are Michael Jay, an independent director appointed by the shareholders who is external to the EDF group, Marie-Christine Lepetit, David Azéma and Pierre Sellal, directors representing the state, and the employee-elected directors Marie-Hélène Meyling, Alexandre Grillat and Jean-Paul Rignac.

Since 2010, the Chairman has invited directors who are not members of the Strategy Committee to attend the committee's meetings, so that the Board of Directors is even more involved in strategic discussions.

The Ethics Committee

The Ethics Committee is chaired by Mireille Faugère, an independent director appointed by the shareholders who is external to the EDF group. The committee's other members are Marie-Christine Lepetit, a director representing the state, and the employee-elected directors Christine Chabauty, Marie-Hélène Meyling, Philippe Maïssa and Alexandre Grillat.

The Appointments and Remuneration Committee

The Appointments and Remuneration Committee is chaired by Bruno Lafont, an independent director appointed by the shareholders who is external to the EDF group. The committee's other members are Michael Jay, an independent director appointed by the shareholders who is also external to the EDF group, and David Azéma, a director representing the State.

1.13.2 Chairman and CEO and Directors' remuneration

The tables below show the remuneration and various benefits paid during 2012 to EDF's Directors and the Chairman and CEO by EDF and its controlled companies at 31 December 2012.

1.13.2.1 Remuneration of the Chairman and Chief Executive Officer

Pursuant to Article 3 of Decree No. 53-707 of August 9, 1953 and Article L. 225-47 of the French Commercial Code, the elements of the remuneration paid to the Chairman and Chief Executive Officer are set by the Board of Directors on the recommendation of the Appointments and Remunerations Committee, as approved by the France's Minister for the Economy and Minister for Energy.

Decree 2012-915 of 26 July 2012 set an annual limit of €450,000 for the remuneration paid to the chairman and CEO. In a letter of December 2012, the Minister for the Economy required EDF to apply this decree with retroactive effect from 1 October 2012.

Details of components of remuneration

Henri Proglio is not paid directors' fees for his duties as Chairman of the Board and director of EDF, and receives no directors' fees for his directorships in companies controlled by EDF, nor any remuneration of any kind from controlled companies.

No stock subscription or purchase options were awarded to the Chairman and CEO in 2012, and no options were exercised by him during the year. Similarly, no performance shares were attributed to the Chairman and CEO in 2011, and no performance share became available.

Henri Proglio benefits from no special pension scheme from EDF, received no starting bonus and will receive no termination indemnity for leaving his functions in the Company. He does not have an employment contract with the Company.

Summary of remuneration of the Chairman and Chief Executive Officer

The following table summarises the remuneration paid to the Chairman and CEO during 2012.

In view of the provisions of the decree of 26 July 2012 and the Minister's letter referred to above, the Appointements and Remuneration Committee will submit the proposed terms for implementation of the new rules, and the associated adjustments to 2012 remuneration, to the Ministers concerned for approval and/or amendment, and subsequently to the Board of Directors.

2012	Paid during 2012 *(in Euros)*
Henri Proglio, Chairman and CEO	
Fixed salary	1,000,000
Variable salary	588,000 (1)
Exceptional salary	none
Directors' fees	n.a.
Benefits in kind (2)	5,007
TOTAL	**1,593,007**

(1) Variable salary for 2011, paid in 2012.
(2) Company car and benefits in kind in the form of energy.
n.a.: non applicable.

1.13.2.2 Remuneration of Board members

In compliance with the law, the Chairman of the Board of Directors receives no director's fees, and directors representing the state and employee representative directors also receive no fees for their services as directors. The Board of Directors submits the amount of directors' fees, to be allocated as the Board decides, to the General Shareholders' Meeting for approval. Since 2005, the amount of directors' fees paid depends on attendance at Board and Committee meetings.

The General Shareholders' meeting of 24 May 2011 approved the amount of €200,000 as the annual budget for directors' fees, and decided that from 2011, this total budget will be allocated as follows:

- the fixed portion of €100,000 is shared equally between all directors, giving an amount of €20,000 each;
- the variable portion of €100,000 is allocated between directors using a coefficient that varies according to the type of meeting (Board or Committee) and the specific functions of each director (chairman or ordinary member):
  - coefficient 2 for attendance at a Board meeting,
  - coefficient 2 for attendance at a Committee meeting as Chairman,
  - coefficient 1 for attendance at a Committee meeting as a committee member.

To determine the unit value of the coefficient, the variable portion is divided by the total coefficients for the year.

The amounts paid during the year are directors' fees for the first half of the current year (50% of the fixed portion) and the second half of the previous year (50% of the fixed portion and 100% of the variable portion).

Summary of directors' fees paid to directors

Directors	**2012(1)**	2011(2)
Philippe Crouzet	39,355	32,000
Mireille Faugère	46,452	34,000
Michael Jay	36,129	29,000
Bruno Lafont	41,290	20,000
Pierre Mariani	36,774	32,000
Henri Proglio	-	-
TOTAL (IN EUROS)	**200,000**	**147,000**

(1) For the second half of 2011 and the first half of 2012.
(2) For the second half of 2010 and the first half of 2011.

1.13.2.3 EDF share ownership by directors

At 31 December 2012, the members of the Board of Directors hold a total of 1,213 shares. The table below shows the number of EDF shares held by indiviual directors:

	Number of EDF shares
Henri Proglio [(1)]	51
Christine Chabauty [(2)]	55
Philippe Crouzet [(1)]	200
Mireille Faugère [(1)]	106
Alexandre Grillat [(2)]	355
Michael Jay [(1)]	200
Bruno Lafont [(1)]	150
Philippe Maïssa [(1)]	39
Pierre Mariani [(1)]	1
Marie-Hélène Meyling [(1)]	28
Maxime Villota [(2)]	28

(1) Shares held directly.
(2) Shares held through an employee investment fund - FCPE.

Ms Lepetit and Messrs Azéma, Dubertret, d'Escatha, Loos, Rignac and Sellal held no shares in EDF at 31 December 2012.

1.13.3 Governance bodies

1.13.3.1 Executive Committee

The members of the Group's Executive Committee (Comex) at 31 December 2012 headed by Henri Proglio, Chairman and Chief Executive Officer, are: Henri Lafontaine, Group Senior Executive Vice President, Commerce, Optimisation/Trading and Island Energy Systems, Marianne Laigneau, Group Senior Executive Vice President, Human Resources, Pierre Lederer, Special Advisor to the Chairman and CEO, Hervé Machenaud, Group Senior Executive Vice President, Generation and Engineering, Thomas Piquemal, Group Senior Executive Vice President, Finance, Vincent de Rivaz, Chief Executive of EDF Energy, and Alain Tchernonog, General Secretary. Denis Lépée, Advisor to the Chairman, is Secretary to the Executive Committee.

1.13.3.2 Management Committee

Henri Proglio heads the EDF group's Management Committee, whose members are the members of the Comex plus: Michèle Bellon, Chair of ERDF's Management Board, Jean-Paul Bouttes, Director of Strategy and Forecasts, Antoine Cahuzac, General Manager of EDF Énergies Nouvelles, Catherine Gros, Senior Group Executive Vice President, Communications, Philippe Huet, Senior Group Executive Vice President, Risks and Audit, Bruno Lescoeur, Senior Group Executive Vice President, Gas and South Europe, Philippe Méchet, Director of Institutional Relations, Olivier Orsini, Director of Development, South America, Africa, Middle East, Community of Independent States and related partnerships, Bernard Salha, Director of Research and Development, Éric Thomas, Director of Group Legal Affairs, Gérard Wolf, Director in charge of relations with financial institutions in Washington. Denis Lépée is Secretary to the Management Committee and Alain Tchernonog chairs the committee in the absence of the Chairman and CEO.

1.13.4 Report of the Chairman of the Board required by article l.225-37 of the Commercial Code

The Chairman's 2012 report issued in application of article L.225-37 of the Commercial Code, and the Statutory Auditors' report, are sent to the Board of Directors at the same time as the management report.

1.14 Other information

1.14.1 Summarised corporate financial statements of EDF SA at 31 December 2012

(in millions of Euros)	**2012**	2011
Sales excluding taxes	44,106	41,950
Operating profit	3,843	3,957
Profit before exceptional items and tax	3,830	1,277
Net exceptional profit (loss)	196	197
Net income	3,566	1,118

1.14.2 Net income

The 2012 income statement is marked by growth of more than 5% in sales and an increase of 3% in operating profit.

Sales growth mainly concerned electricity sales in France, and reflects weather effects and the increases in regulated tariffs of July 2011 and July 2012.

The €2.5 billion increase in net profits is mostly attributable to the financial result, which showed an improvement of €2.7 billion essentially resulting from higher dividends received and net reversals of impairment on financial assets, particularly dedicated assets, and income of €629 million in 2012 for the costs of bearing the cumulative charges associated with the CSPE systems.

1.14.3 Allocation of net income

The dividend distribution policy is defined by the Board of Directors, depending on the Company's results and financial position and taking into consideration the dividend policies of major French and international companies in the same business sector. The following dividends were paid for the previous three years:

Year	Number of shares	Dividend per share (1)	Total dividends paid (after deduction of treasury shares)
2009	1,848,866,662	€1.15	€2,111,146,365.85 (2)
2010	1,848,866,662	€1.15	€2,122,291,972.68 (3)
2011	1,848,866,662	€1.15	€2,124,757,978.20 (4)

(1) After deduction of treasury shares.
(2) Including 2009 interim dividend paid on 17 December 2009: €1,002,006,770.05 (including €937,815,444.36 paid in the form of new shares).
(3) Including 2010 interim dividend paid on 17 December 2010: €1,053,574,334.82.
(4) Including 2011 interim dividend paid on 16 December 2011: €1,053,169, 658.76.

100% of the dividend is eligible for the special 40% tax allowance under paragraph 3-2 of article 158 of the French tax code.

1.14.4 Five-year summary of EDF results

	2012	2011	2010	2009	2008
Capital at year-end					
Capital *(M€)*	924	924	924	924	911
Capital contributions *(M€)*	-	-	-	-	-
Number of ordinary shares in existence	1,848,866,662	1,848,866,662	1,848,866,662	1,848,866,662	1,822,171,090
Number of priority dividend shares (with no voting rights) in existence	-	-	-	-	-
Maximum number of future shares to be created	-	-	-	-	-
by conversion of bonds	-	-	-	-	-
by exercise of subscription rights	-	-	-	-	-
Operations and results of the year *(M€)*					
Sales excluding taxes	44,106	41,950	40,906	38,895	39,003
Earnings before taxes, employee profit sharing, depreciation and provisions	7,978	5,417	4,906	4,531	3,842
Income taxes	460	356	660	402	(346)
Employee profit share for the year					
Earnings after taxes, employee profit sharing, depreciation and provisions	3,566	1,118	1,492	4,580	867
Earnings distributed		2,125 (1)	2,122 (1)	2,111 (1)	2,328 (1)
Interim dividend distributed	1,053	1,053	1,054	1,002	1,164
Earnings per share *(€/share)*					
Earnings after taxes and employee profit sharing, before depreciation and provisions	4.07	2.74	2.30	2.23	2.30
Earnings after taxes, employee profit sharing, depreciation and provisions	1.93	0.60	0.81	2.48	0.48
Dividend per share		1.15 (1)	1.15 (1)	1.15 (1)	1.28 (1)
Interim dividend per share	0.57	0.57	0.57	0.55	0.64
Personnel					
Average number of employees over the year	64,303	62,479	60,380	59,837	59,131
Total payroll expense for the year *(M€)*	3,687	3,600	3,377	3,265	3,178
Amounts paid for employee benefits and similar (social security, company benefit schemes, etc) *(M€)*	2,551	2,161	2,125	2,025	1,917

(1) Including the interim dividend paid out.

1.14.5 Payments to suppliers

Since 1 December 2008, the Company has applied the French law on modernisation of the economy and settles supplier invoices within 60 days of the invoice date. EDF SA's trade payables excluding invoices receivable amounted to €3,134 million, distributed as follows:

- invoices due: €29 million (less than 1%);
- invoices payable within 60 days: €3,034 million (97%);
- invoices payable after 60 days: €71 million (2%).

Most supplier invoices payable after 60 days relate to contracts for nuclear activities that were negotiated before 1 January 2009 and have not been renegotiated. A smaller proportion of these invoices relate to contracts that are not governed by the French law because they concern activities taking place outside France.

Section 2 of this report is EDF's response to the obligations incumbent upon it by virtue of the implementation decree 2012-557 for France's "Grenelle 2" law. This law requires companies to report on the action taken and chosen directions to address the social and environmental consequences of their business activities, and fulfil their social commitments in favour of sustainable development:

- Section 2.2 Environmental information (pages 169-181)
- Section 2.3 Societal information (pages 182-188)
- Section 2.4 Social information (pages 188-195)

This information must be read in conjunction with the summary report of the EDF group's sustainable development indicators published on pages 196-203.

↗ 2. Corporate responsibility

With its core values of respect, responsibility and solidarity for excellence underpinned by integrity, ever since it was formed the EDF group has applied a strategy that focuses on the public interest and is founded on a corporate responsibility approach.

This is reflected in EDF's constant concern for the safety of people and the security of its industrial facilities, while contributing to secure supplies of quality electricity at a competitive price in each country where the Group does business.

The EDF group's policies are part of this corporate responsibility approach:

- the Group strategy to 2020, as presented at the 2011 General Shareholders' Meeting;
- the Group-level sustainable development policy signed by all Group companies in 2009, itself comprising environmental, societal and governance policies;
- a global approach to Human Resources and social matters called *"Vision RH"*, consisting of group policies on diversity, career equality, accessibility, etc through a worldwide Corporate Social Responsibility agreement signed with the union organisations of 16 Group companies;
- a Group charter of ethics, currently being rolled out to replace EDF SA's Ethics Guide introduced in 2007.

2.1 Sustainable development

The EDF group's environmental and societal policy draws on the principles of the United Nations Global Compact, which the Group joined in 2001. The Group has formally defined its action in a sustainable development policy that addresses the relevant key issues, guided by EDF's ethical approach. This is reflected in an environmental policy focusing on climate change prevention and protection of biodiversity, and a societal policy promoting access to energy, local responsibility and contributions to education on energy issues.

2.1.1 Governance of sustainable development

Governance of sustainable development takes place through the following organisations, systems and monitoring bodies:

- a **Sustainable Development Department**, whose task is to coordinate and support actions by EDF departments and Group companies to meet its commitments under the sustainable development policy, and report on those actions. The sustainable development department has defined four major areas for action: dialogue with stakeholders, the inclusive green economy (financing the economic model and integrating sustainable development aspects into all lines of activity), sustainable development in projects and management of sustainable development (led by the Group);
- an **environmental management system** (EMS) that is used in all entities (see 2.2.1.1);
- a **Group Sustainable Development Committee** formed in late 2008, made up of the heads of sustainable development from the principal Group subsidiaries, affiliates and divisions. While respecting the independence of each Group entity, the Committee's task is to supervise implementation of the Group's sustainable development policy and coordinate actions associated with the Group's ISO 14001 certification, as well as to develop sharing of experiences and best practices between its entities. This Committee held three meetings in 2012 to monitor progress on the charter of ethics at Group level, examine the conditions for stronger dialogue between Group companies and their stakeholders, assess the acceptability of these entities' industrial facilities, study the relevance of the Group's current sustainable development policy in the light of new worldwide environmental and societal situations, initiate reflection on the introduction of common corporate social responsibility commitments for all Group subsidiaries, affiliates and divisions, and discuss the issues raised by a biomass policy;
- **Project screening** through the Comex's Commitments Committee. Before being submitted to this committee, the Group's major investment projects undergo an assessment of their exposure to the risk of "non-achievement of sustainable development commitments".

2.1.2 Training in sustainable development for managers and employees

EDF has embarked on a programme to raise managers' and employees' awareness and consideration of sustainable development issues, via:

- a system to incorporate sustainable development issues into project management. Since April 2012 the project management standards has been updated, to incorporate the sustainable development dimension and investment monitoring more comprehensively. All aspects of sustainable development and economic performance are now covered: analysis of the project's economic lifecycle, contribution to local economic development, investment monitoring, inclusion of social clauses in procurement contracts, compliance with regulatory consultation measures, etc. The updated standards were prepared in conjunction with the companies and divisions, and will be rolled out to the whole Group in 2013. This is backed up by a system to help local diagnosis, appropriate training sessions, and mapping of the stakeholders and the Durabilis methodology, all to help managers develop action plans for sustainable development, and encourage them to identify the stakeholders concerned by their project, the project's consequences for local employment, value creation in the local area, secure working conditions, reasonable use of local resources, biodiversity impacts, etc. The Durabilis methodology was rolled out in 2012 by EDF's business line management divisions as part of the "improving project success" programme. A project management community is currently being created to lead a network of project managers;

- introduction of a compulsory 2-day training module in "Customer Division fundamentals" for everyone joining EDF; this module covers the new regulatory environments, the issues of energy efficiency and the dangers of electricity as a product;
- a "Core knowledge" academy which provides training for all new arrivals at the Nuclear fleet division in ISO 14001 certification, industrial and nuclear waste management and ethics;
- specific Academies for the generation business lines, including environmental modules (e.g. amoebae and legionella, and environmental regulations for engineers);
- theme days (the Society Workshop in January 2012 that gave 80 project managers better awareness of the importance of taking stakeholder expectations into consideration; Eco-design day for engineering sustainable development delegates, for stronger incorporation of eco-design into industrial projects);
- publication of methodological guides on attention to biodiversity in operational business lines (hydropower and property management in 2011, nuclear power and networks in 2012);
- introduction, over the last three years, of a "responsible purchasing" component in the training of purchasers followed by all new arrivals concerned (1,435 hours of training given in 2012), and introduction of a specific 2-day course on "Purchasing and sustainable development" (1,000 hours of training given since 2010);
- organisation of "Sustainable City" conferences where the teams in charge of strategy, relations with local authorities, research and sustainable development can share the experiences of town planners, architects, local development and planning agencies, mayors, ministerial experts and research institutes. Four conferences took place in 2012, focusing on initiatives taken by the Swedish city of Malmö, social diversity in towns and cities, urban change and urban biodiversity;
- the launch in May 2012 of a "Sustainable Development community" on EDF's intranet site, to encourage sharing of good practices instigated by the business line divisions and make employees more aware of changes in their environment (40,000 pages have been visited);
- the "Wattitude" system offering EDF employees products and services at special rates to reduce their energy consumption and carbon footprint, and an associated campaign to educate users and promote environmentally responsible behaviour in everyday life;
- inclusion of sustainable development criteria in calculation of employee profit share. This concerns two of the total five criteria: the recycling rate for waste managed by EDF, and the proportion of employees who followed at least one training course during the year. 40% of employee profit share is linked to achievement of these objectives.

Training for nuclear service providers also includes an "environment" module.

In 2012, EDF and ERDF focused on raising employee awareness of reducing industrial waste, by launching an inter-business line competition named "*Ça déborde, à vous de jouer*". The objective is to identify innovative practices that generate less waste at source, and share them with a view to industrial application. This operation is one of the 35 corporate initiatives to gain official recognition by the French environment and energy management agency ADEME as part of the 4th European Waste Reduction week (November 17-25, 2012). More than 130 teams submitted initiatives on four themes: reducing the quantity of waste, reducing its danger level, optimising site waste management and reducing office waste. The competition was accompanied by a multi-business line day dedicated to prevention and optimisation of non-nuclear waste.

In the **United Kingdom**, all EDF Energy employees now follow a compulsory e-learning course called Sustainable Steps, which presents the company's sustainable development commitments. More than 6,400 employees (41% of the workforce) have already followed this course. In the "Coaching for performance" career plan, each person must define an action associated with sustainable development, and each action is subject to managerial monitoring. In 2012, 76% of employees drew up an action. The management training initiated in 2011 to foster inclusion of sustainable development in decision-making criteria and assessment of the opportunities offered by sustainable development in their business model has now been extended to employees in charge of programmes related to corporate responsibility. Finally, EDF Energy has set up a Company Incentive Plan (CIP) that includes profit share criteria based on the degree to which economic, environmental and social performance commitments are kept.

2.2 Environmental information

2.2.1 General environmental policy

2.2.1.1 Organisation and ISO 14001 certification

The Group's entities use an environmental management system (EMS). Initiatives, objectives and indicators are coordinated through the system at Group level according to the environmental commitments in the Group's development policy, overseen by a Supervisory Board and groups focusing on specific themes.

In 2011 the AFNOR issued its third 3-year renewal for the Group's ISO 14001 certification, originally gained in 2002.

Some ISO 14001 certified Group companies are aiming to join this Group certificate in 2013. In 2012, EDF and its subsidiaries and affiliates representing 98% of consolidated sales had ISO 14001 certification.

In France, as part of the operation of its EMS, EDF has structured its approach in an environmental management programme (EMP).

The programme, which was validated when the SME was reviewed by the environmental Supervisory Board on March 21, 2012, aims to consolidate the environmental initiatives in order to achieve the targets set in EDF's sustainable development policy.

The most significant actions are the following:

- continuing to reduce the Group's CO_2 emissions by improving nuclear fleet availability and adjusting the energy mix (developing renewable énergies and commissioning new generation units, particularly combined cycle gas units);
- limiting environmental impacts, especially on biodiversity;
- improving management and recycling of non-nuclear waste;
- screening sustainable development criteria for investment, development and maintenance projects for industrial installations;
- maintaining the good level of employment and management awareness;
- demonstrating continuous improvement and performance;
- giving greater recognition to employees' efforts to achieve targets;
- improving organisation further, ensuring that activities are in compliance with regulations.

At **International** level, at the annual review of the EMS on June 29, 2012, the members of the Sustainable Development Committee defined the following major orientations:

- ongoing introduction of action plans for adjustment to climate change, as decided by each entity;
- continued integration of certified companies into the Group's ISO 14001 certificate;
- implementation of Group commitments regarding water (see 2.2.4.2);
- sharing the methodological components of a Group carbon footprint (greenhouse gas review).

2.2.1.2 Oversight of environmental risks

Risk mapping and risk control levels, including EDF's environmental risks, are prepared by the Group's Risk Control Division, in relation with all Group subsidiaries and entities.

Financially and economically, the most significant factors associated with environmental risks relate to:

- deployment of energy efficiency actions and achieving the associated certificates;
- impacts of EDF businesses on the air, water and ground quality and waste production;
- protection of biodiversity;
- management of water resources;
- greenhouse gas emissions.

These risks are fully integrated into EDF's environmental management system and are covered by action plans resulting from the orientations laid down in the Group's Sustainable Development policy.

Resources devoted to preventing risk and pollution

To control the risks of industrial accidents with potential consequences for the natural environment and/or public health, EDF carries out:

- inspections and audits of generation sites (see 2.2.2.1 "Nuclear safety" and 2.2.2.2 "Hydropower safety");
- crisis drill exercises; In 2012, 195 exercises (incuding 12 national drills together with the French authorities) took place at 19 of the French nuclear power plants;
- an active investment policy;
- a personnel training programme to raise awareness of all parties involved.

There were no major significant environmental events[1] in 2012.

2.2.1.3 Environmental incidents

Each operational unit and company in the Group identifies potential events with environmental impacts, manages the emergencies that may result and carries out the corresponding crisis drill exercises, with its own monitoring system and reporting on the environmental events under its responsibility.

Such events are of minor importance and generally relate to operating problems such as low-volume, localised hydrocarbon spills, dust emissions in the air, legacy ground pollution, and changes in water flow downstream of hydropower facilities.

Each event is analyzed individually, and the necessary corrective action to prevent recurrence is defined based on an overall review using the ISO 14001 certified management system.

2.2.1.4 Environmental research and development

With its forward–looking action for the medium and long term, EDF's R&D is preparing for the Group's future by responding to the environmental issues it faces.

Its research areas focus on three major priorities (see 1.5.2):

- consolidation of a carbon-free energy mix;
- development of a flexible demand for low-carbon energy;
- adaptation of the electricity system to meet new challenges.

The main areas for sustainable development-themed research in 2012 are:

- controlling the nuclear facilities' impact on the environment: i) intensifying research on safety, the environment (external events) and operating lifetime, ii) new topics such as rehabilitation of an inhabited area evacuated after a nuclear incident;
- improving the competitivity and availability of nuclear power plants, with the objective of generating the same amount of electricity for lower fuel consumption. Innovative instruments were developed during 2012 to identify energy losses and performance in the plants' major circuits, and to assess the additional power margins that could be achieved without compromising safety;
- reinforcing investments in new test resources to support energy efficient offers, with two new laboratories opened in 2012 of (one to work on Low Energy Buildings and the other on new lighting techniques);
- participation in five Institute of Excellence carbon-free energy projects under the Investissements d'avenir project for investments with a future:
  - the *Institut Photovoltaïque Ile-de-France* (IPVF), which focuses on technological innovation to bring competitive photovoltaic energy on the market;
  - *France Énergies Marines*, working on marine and offshore wind power;
  - *SuperGrid* on the theme of major transmission networks connecting remote renewable energy generation sites;
  - *Efficacity*, on the sustainable city, and;
  - *Vedecom*, on electric mobility.

EDF is also the lead investor in Electranova Capital: for details see section 1.2.2.2.4.4.

1. *Such events are: accidents and incidents with serious consequences for the environment (impact on human health and/or biodiversity and/or natural resources) or consequences for the Group: legal or financial (reparation for damage, settlement of litigation) or damage to its reputation.*

2.2.2 Safety of industrial facilities, and personal safety for employees and third parties

2.2.2.1 Nuclear safety

Plant safety during operation is the top priority for the EDF group. It is taken into consideration from the initial design stage, and is regularly monitored, together with implementation of an employee motivation policy and large-scale investment programmes.

In 2012, EDF published its nuclear safety measures and commitments in a single document containing the Group's nuclear safety policy. This has been incorporated into training applicable to EDF personnel and subcontractors.

Control and surveillance

Nuclear safety is subject to several controls both internal (annual reviews, internal control plans and nuclear inspections in France) and external (peer reviews between WANO [1] member firms and OSART [2] audits conducted by experts from the IAEA [3]).

In France, the safety of nuclear facilities is verified by the Nuclear Safety Authority (ASN). The International Nuclear Event Scale (INES) classifies events on a scale of 1 to 7, with 7 being the most serious. Incidents of no consequence for nuclear safety are classified as "deviations" or level 0 events.

The ASN also approved the creation of an additional FARN ("*Force d'Action Rapide du Nucléaire"* or Nuclear Rapid Action Force) crisis management unit, after additional safety assessments carried out by EDF.

In 2012 four operational FARN teams (Civau, Paluel, Dampierre and Bugey) were in existence and simulation exercises were conducted (restoring water, air and electricity supplies).

To ensure the nuclear fleet remains effective and safe after 40 years of operation, EDF is implementing the Major Refit programme involving replacement of major components on nuclear installations. A key aim of this programme is to improve safety performances, as required for the ASN and the State to receive permission to continue operation.

In the United Kingdom, the Office for Civil Nuclear Security (OCNS) is the independent watchdog authority for safety in the civil nuclear sector. It monitors compliance with security rules, including for transportation of radioactive matter.

In the United States, the Nuclear Regulatory Commission (NRC) oversees the quality and safety of the nuclear fleet's operations. The Institute of Nuclear Power Operations (INPO), of which all US nuclear operators are members, conducts evaluations and analyses with the aim of achieving excellence in operation.

Results for 2012

There was no serious safety event or above-limit discharge in 2012.

The number of significant safety events declared in France to the Nuclear Safety Authority in 2012 (11.9 per reactor) rose noticeably (+16%) compared to 2011, as did the number of events classified as INES level 1 (1.55 per reactor). Transparency at EDF is good, and this rise, which was mainly due to an increase in events of the kind that arise in general maintenance activities (+40%), requires in-depth analysis and immediate corrective action. Also to be noted is the declaration of one INES level 2 significant safety event with no immediate safety consequences: nonconformities were detected in early 2012 that had affected the "siphon breakers" of certain fuel storage pools from the outset.

The number of automatic reactor trips (ARTs) is encouraging, being comparable at 0.55 to 2011 when the fleet registered its best ever performance. This confirms the progress made in previous years and the attainment of the best international standards. In 2012, 36 reactors had no ART all year. The consolidation in 2012 of achievements in fire safety measures (prevention, organisation, training) was another key achievement. Few fires started and there was no major fire incident.

At EDF Energy, in the UK where differences in declaration procedures reflect different reporting requirements, the number of significant safety events was down slightly in 2012 (to 4.6 per reactor from 4.7 in 2011). More comparable is the number of events classified under the INES: the number of events declared, all limited to level 1 in 2012, was lower than in 2011 and than in the French fleet (0.80 per reactor).

In the United States, which also has different declaration procedures, the number of significant safety events declared in 2012 by CENG remained stable at close to 11 per unit. The number of events classified under the INES rose slightly (0.8 per reactor after 0.6 in 2011), and all were limited to level 1 in 2012.

Detailed results on nuclear safety for 2012 are published in the annual report drawn up by the Inspector of Nuclear Safety, available from EDF's sustainable development report website (http://rapport-dd.edf.com, to be released in April 2013).

2.2.2.2 Hydropower safety

In France, EDF operates 435 hydropower plants and manages the water reservoirs held by its 239 large dams. The average age of French hydropower facilities is 69 years. Hydropower safety measures are designed to control risks of breaches in dams or related facilities, the risks associated with operating during high water level periods, and the risks related to water flow variability during operation.

Safety at EDF's hydropower fleet remained satisfactory in 2012 despite three important hydropower safety incidents classified as "orange" that resulted in two penstock pipes and one turbine shroud breaking, confirming the need to continue asset maintenance efforts and renewal of skills. The key indicators are still progressing:

- good detection of significant (non-serious) events (level 0) by local teams (2,950 detected in 2012, 2,472 in 2011);
- the number of events with external effects (level 1 or below) was substantially lower (39 in 2012, 32 in 2010 and 34 in 2009 after a total of 22 in 2011 when water levels were low);
- the number of sites with a risk of "high criticality" as regards variations in water flow downstream of installations continued to decline: it has fallen from from 114 in 2005 to 16 in 2012 (19 in 2011).

Control of risks associated with wear and tear is a major concern in hydropower, and the long-term maintenance policy was updated in 2012.

The long-term SuperHydro hydropower facility renovation programme for fleet safety and efficiency is 73% complete. This programme involves €888 million of expenditure on safety between 2007 and 2017, covering 446 operations, including 367 directly concerning safety. 269 safety operations had been carried out by 31 December 2012.

The recurring maintenance programme IPHE-S, covering the safety aspects of hydropower engineering for plants in operation, provides a long-term complement to Superhydro. Immediate maintenance action (specific measures and resources) was taken through this programme to ensure that the safety margins are clearly identified and countermeasures are active.

1. *World Association of Nuclear Operators.*
2. *Operational Safety Review Team.*
3. *International Atomic Energy Agency.*

At the end of 2012, 664 specific actions were in process and monitored in 5 priority groups of facilities: galleries, pipes, dams, penstocks and floodgates.

Both these programmes are backed up by the *RenouvEau* programme to improve the safety, performance and competitivity of the hydropower fleet. The solutions developed aim to generate more hydropower at the optimum time, reduce fleet unavailability and raise profitability while guaranteeing operational and workplace safety. This programme will be rolled out in 2013, after last year's test phase on pilot sites.

Owners or operators of dams are required by law to carry out safety reviews and danger assessments, and EDF expects to complete 242 danger assessments by 2014 and 152 safety reviews by 2017. By the end of 2012, 67 safety reviews and 175 danger assessments had been carried out, as required by the decree of 11 December 2007, covering all class A facilities (dams at least 20m high, i.e. 149 EDF dams).

For further details, see the 2012 report by the Inspector of Hydropower Safety, available from EDF's sustainable development report website (http://rapport-dd.edf.com, to be released in April 2013).

2.2.3 Waste policy and management

2.2.3.1 Nuclear waste

In France, radioactive waste is classified by activity level and lifetime, following the classification used by the French national agency for radioactive waste management ANDRA (*Agence nationale pour la gestion des déchets radioactifs*). Waste is listed in an inventory stating its location, and the data are published and regularly updated by ANDRA.

Four industrial principles govern management of this waste: limiting quantities, sorting by nature, stable conditioning, isolation from humans and the environment. Limited quantities of radioactive waste are produced: 1 MWh of nuclear electricity (equivalent to a month's consumption for 2 households) generates around 11g of radioactive waste, 90% of which is short-life waste.

Results for EDF in France	Unit	**2012**	2011	2010
Very low-level radioactive waste from decommissioning	t	2,528	634	1,369
Low and medium-level short-life solid radioactive waste	m^3/TWh	20.7	15.6	12.4
High and medium-level long-life solid radioactive waste	m^3/TWh	0.88	0.87	0.88
Transported spent nuclear fuel	t	1,075	1,199	1,140

EDF applies a strategy of gradually increasing the performance of nuclear fuel. The objective is to raise nuclear energy output by increasing the combustion rate and optimising operating cycles to improve nuclear plant availability, while allowing for shutdown schedules in line with seasonal variance in demand.

EDF's current strategy for the nuclear fuel cycle, in agreement with the French state, is to process spent fuel and recycle the plutonium separated in this process in the form of MOX fuel. Since 2010, the recycling capacities have processed close to 1,050 tonnes of spent fuel annually, of a total of some 1,200 tonnes of fuel used.

EDF's research programmes on nuclear waste also cover:

- classification of nuclear waste, reprocessing where relevant, conditioning into packages, and its subsequent long-term behaviour in storage;
- thermal-hydro-mechanical and chemical behaviour of geological storage for long-life medium ad high-level waste, and the long-term safety of such facilities;
- development of a long-term view in keeping with the prospects for developing 4th generation reactors.

In 2012, EDF's R&D joined forces with other European nuclear actors to form the association Nugenia, which has 60 members from 18 countries. EDF is the president of this association, formed to facilitate synergies and joint projects with national R&D programmes in the following areas: safety and risk analysis, serious accidents, reactor cores and performances, component integrity and ageing, fuels, waste and decommissioning, the Generation III design innovator, and more general issues of harmonising practices (principally in the field of safety) and non-destructive inspections and evaluations.

The cost of removing and storing waste resulting from plant decommissioning is covered by a provision, and the charges related to operating waste are included in annual expenses.

EDF's provisions at 31 December 2012 are established in compliance with the law of 28 June 2006 and its implementing decrees, which were issued in 2007.

At 31 December 2012, provisions for decommissioning and last cores amounted to €20,979 million, and provisions for the back-end nuclear cycle totalled €19,525 million. The price per KWh thus includes all expenses related to this obligation, i.e. the cost of managing long-life waste and the cost of plant decommissioning and current waste conditioning.

EDF's R&D teams and ANDRA are continuing to work together on the question of how packages of nuclear waste behave in geological storage, and on models simulating the behaviour of the host rock, particularly argillite.

As its UK facilities mostly use graphite-gas technology (AGR – advanced gas-cooled reactors), EDF is part of the European Carbowaste project on management of the graphite resulting from decommissioning, alongside German research bodies (FZJ), the CEA, Manchester University and ANDRA. This 4-year project starts in 2013.

In the **United Kingdom**, radioactive waste is classified as high, medium and low level (HL, ML and LL) and each type is treated differently. Medium level waste is stored on the plants' sites in dedicated facilities, and inspected in compliance with safety requirements. Low level waste is stored on the plants' sites until prepared for dispatch (for processing or elimination), and is monitored and regularly inspected.

Results for EDF Energy	Unit	2012	2011	2010
Transported uranium	t	216	211	131
Transported low level radioactive waste	m^3	698	608	498
Generated medium level radioactive waste	m^3	161	161	162

In the **United States**, the Federal Government has banned reprocessing of spent nuclear fuel, and the Nuclear Waste Policy Act (NWPA) enacted in 1982 requires CENG to construct permanent storage facilities for spent fuel and high level radioactive waste, through the intermediary of the Department of Energy (DOE).

Results for Constellation Energy Nuclear Group (CENG)	Unit	2012	2011	2010
Nuclear fuel delivered	t	46	48	34
Transported low and medium level solid radioactive waste	m^3	2,419	1,287	735

2.2.3.2 Management of radioactive effluents

In **France**, management of the nuclear power plants' radioactive gas and liquid effluents is governed by strict regulations and EDF's ambition to limit the environmental and health impacts of its installations, reaffirmed in the Group's environmental policy. In terms of radioactive emissions, plant performance depends not only on the efficiency of effluent processing systems, but also on operating practices.

The action taken in plant design and operation has kept the nuclear plants' radionuclide discharge in liquid form (other than tritium and carbon-14) to a very low "minimum" level for several years, after reducing them by a factor of 100 in 15 years. This achievement results from the efforts made regarding capture, sorting and orientation of effluents at source, increasing evaporation treatments, implementing demineralisation processes and optimising recycling of effluents. Cutting discharge has not caused an increase in waste, because waste also declined over the same period. The same applies for tritium, carbon-14 and other chemical substances.

Measurements taken by the operator are monitored to confirm that the environment is not affected by the installations' operation.

Sampling and measurement campaigns carried out by external laboratories and universities for radio-ecological and hydro-biological monitoring have confirmed the lack of impact in the long term.

In the **United Kingdom**, radioactive effluents remained stable and within regulatory limits.

The result of atmospheric emissions and radioactive discharge is reported for EDF, EDF Energy et CENG in the summary of environmental indicators reported in appendix 1.

2.2.3.3 Industrial waste

In its sustainable development policy, the EDF group takes proactive measures to limit the environmental and health impacts of its installations and businesses. With its ISO 14001 certified environmental management system, industrial waste is managed with the emphasis on reducing waste at source, sorting waste, recycling and upstream use of products designed and produced in environmentally-friendly ways. A permanent progress approach is applied, founded on the conviction thar the "best waste" is waste that is never produced.

Results for the EDF group (in tonnes)	2012	2011
Volume of non-nuclear waste recycled or transferred for recycling	253,412	251,908

In **France**, waste management organisation plans are now drawn up before every important construction, decommissioning or maintenance project, and yearly feedback is monitored by the business line divisions. Of the 16 major projects identified in 2012 for the nuclear fleet, 10 are already covered by a plan of this kind and 100% of nuclear engineering projects use them.

When reassessed in March 2012, EDF's sustainable development policy strengthened the target of recycling all suitable waste, raising it from 75% in 2011 to 85% in 2012. For 2009, 2010, 2011 and 2012 the actual recycling rate for all non-nuclear waste produced by generation and engineering work (excluding fly ash and gypsum, which are fully recycled) was 73.6%, 79.6%, 85.1% and 86.8% respectively.

In the overseas French territories, where recycling of certain types of waste is hindered by isolation and the lack of local facilities, an 84.5% recycling rate was achieved. For Saint-Pierre and Miquelon, 2012 saw completion of a waste elimination system (under the Veolia Canada contract).

The waste management group associated with the EMS, which includes ERDF, held a second multi-business line day on industrial waste prevention and optimisation, preceded by a competition to encourage local initiatives, share good practices and develop synergies between business lines and purchasing. One major example of the practical achievements of 2012 is the centrifuge system linked to a balance tank to clear fuel reservoirs (which reduces fuel losses without having to process and remove hydrocarbonated water), installed at the Dirinon fossil-fired plant. This will be assessed with a view to more extensive industrial use.

Internationally, EDF Energy made a commitment this year to cut waste by 30% and stop sending office waste to refuse collection sites by 2020. Work on identifying alternative solutions has also begun. "Waste plans" devised at the industrial sites succeeded in reducing the proportion of waste sent each month to underground disposal sites (below 10%).
In Poland, EDF Wybrzeże set up ash silos, which have enabled the company to sell its fly ash and limit the volumes transferred to disposal sites.

2.2.4 Sustainable management of resources

The Group has several levers to reduce its consumption of natural resources:

- increasing plant efficiency and limiting loss during generation, transmission and distribution by using the most effective technologies. For example:
  - replacing old fossil-fired plants by the latest-generation coal-fired (supercritical) plants or combined-cycle gas plants,
  - developing cogeneration, i.e. combined generation of heat and electricity;
- using more effective fossil fuels (coal, fuel oil, gas) and fissile fuel (uranium);
- increasing the efficiency of uranium by recycling (of plutonium as MOX fuel), and raising the capacity of certain "breeder reactors" to generate more fissile matter than they consume;
- developing renewable énergies: hydropower, pumped storage power stations (STEP), onshore and offshore wind power, solar power (particularly photovoltaic), biomass, and marine energy (marine turbines and tide power) (see section 2.2.4.1).

As all types of energy-saving campaigns are another source of resource protection, EDF develops and markets packages for its customers that incorporate energy-efficient equipment, use of renewable énergies in buildings, and incentives for energy-saving behaviour.
These offerings are founded on:

- demand side management (DSM) services: insulation, building renovation, advice and heat diagnoses;
- development and intensive integration of new distributed énergies into buildings for heat generation (heat pumps, solar water-heaters, woodburning stoves and fireplaces);
- management of the load curve to reduce or defer peakload CO_2–producing consumption;
- use of smart meters, to optimize networks and carry out remote measurement services and remote actions to reduce greenhouse gas emissions;
- "green" energy options offered to customers, producing no CO_2 emissions, or partly carbon-offset offers.

2.2.4.1 Development of renewable énergies

In a world where the development of renewable énergies is highly dependent on national and international policies supporting these energy sources (purchase obligations or quotas, favourable electricity purchase tariffs, tax incentives, green certificate systems, etc), the EDF group is continuing to make significant investments, giving priority for hydropower, wind power and solar power, with support from EDF Énergies Nouvelles and its large European subsidiaries including EDF Energy and Edison. In 2012, Edison devoted 50% of its electricity generation investments to developing new onshore wind farms. In Belgium, EDF Luminus has set itself the target of doubling its installed capacity in onshore wind farms by the end of 2014, and having 10% of renewable énergies in its energy mix by 2020.

For EDF Énergies Nouvelles, the year 2012 was marked by five major events:

- in France, successful developments in offshore wind power: three of the French government's four wind power projects were awarded to the consortium headed by the company in the first tenders for offshore wind power launched in 2011. These three projects will provide a total of 1.5 GW in new capacities, and are associated with an ambitious industrial plan to create more than 7,000 jobs directly and indirectly;
- business expansion in three new countries, South Africa, Morocco and Poland. In South Africa, EDF Énergies Nouvelles and its local partners were the successful bidders for three wind power projects (totalling 104 MW) in the Cape region. Construction will start in 2013, with commissioning by the end of 2014. In Morocco, the consortium headed by EDF Énergies Nouvelles, in partnership with the Japanese group Mitsui & Co, was the selected bidder for the Taza wind power project (150 MW) near the city of Fez. In December, the same consortium was shortlisted for a second Moroccan wind power project (85 MW). In Poland, the development company Starke Wind and the Linowo wind farm project were acquired in September 2012;
- a wind power project for more than 1 GW was launched in Canada with commissioning of the Saint-Robert Bellarmin plant in October. This programme covers 6 other projects in a schedule that runs till 2015;
- In France, 3 major solar power projects with total installed power of 231 MWp were commissioned in 2012;
- In December, through an international consortium, 32 French existing wind farms at Inberdrola were acquired: these facilities have total installed power of 321 MW or close to 5% of France's connected wind power plants.

Main developments in 2012	
Hydropower	■ The reservoir was filled at the Rizzanese dam (55 MW) in Corsica, for commissioning of the plant in 2013.
	■ Preparation of the hydroelectric development project at Romanche-Gavet (93 MW), Isère, France.
	■ Increase in the capacity of the dams at Serre-Ponçon (+55 MW) and La Bathie (+ 45 MW) in France.
Onshore wind power	■ Commissioning of three major wind farms in the United States: Shiloh III (102.5 MW) and Pacific Wind (140 MW) in California, and Spearville 3 (100.8 MW) in Kansas by EDF Énergies Nouvelles.
	■ Commissioning of EDF Énergies Nouvelles' first Canadian wind farm (80 MW).
	■ Commissioning of the Linowo plant (48 MW), Poland, by EDF Énergies Nouvelles.
	■ Start of operation for the Green Rigg wind farm in the United Kingdom, by EDF Energy Renewables (36 MW).
	■ Acquisition by EDF Luminus of the Ciney wind farm (10 MW) in Belgium.
Offshore wind power	■ Onsite testing of the hydropower demonstrator off the coast at Paimpol-Bréhat in France (October 2011-January 2012); subsequent technical adjustments were tested and validated in a second immersion.
Solar power	■ In 2012, EDF Énergies Nouvelles commissioned three major solar projects in France: Toul-Rosières (115 MWp) in Meurthe-et-Moselle, Crucey (60 MWp) in Eure-et-Loir, and Massangis (56 MWp) in Yonne.
Capacities under construction	
Onshore wind power	■ The Fallago Rig (144 MW), Boundary Lane (6 MW), Glassmoor and the Glassmore extension (12MW) wind farms in the United Kingdom by EDF Energy Renewables.
	■ The Massif du Sud (150 MW) and Lac Alfred (300 MW) facilities in Canada, by EDF Énergies Nouvelles.
Offshore wind power	■ The Teesside offshore wind farm (62 MW) off the British coast by EDF Energy Renewables, due to be commissioned in 2013.
Solar power	■ Construction has begun on the Catalina plant in the United States (140 MW in California) by EDF Énergies Nouvelles.
Other developments	
Offshore wind power	■ Creation of a 50/50 joint venture in April 2012 by EDF Energy and Eneco Wind UK Limited, covering exclusive development rights to phase 3 of the Navitus Bay offshore wind farm to the west of the Isle of Wight. This development could supply between 900 MW and 1,200 MW wind power capacity. The building permit is expected to be issued in 2015 and the first phase of construction work should start in 2017.
	■ Start of operating phase for the river hydropower project in Guyana by EDF Systèmes Énergétiques Insulaires.
Marine energies	■ Progress on the marine STEPs (pumped storage power stations) in Guadeloupe and La Réunion by EDF Systèmes Énergétiques Insulaires.
	■ Two pilot projects headed by EDF Énergies Nouvelles: ▪ Houles Australes, off the coast of Réunion Island, trying out a system to convert waves into energy; a new milestone was reached in 2012 with work to immerse a full-scale prototype, ▪ the VertiMed project for a floating wind farm, involving joint work by the industrial firm Technip and the start-up company Nénuphar to make an innovative turbine: paddles turning on a vertical axis and a floating system that can work independently of the seabed depth. A pilot site will be developed off the coast near Marseille.
Solar power	■ Continuation of the Millener project in French overseas territories. This project was launched in 2011 and aims to install rooftop solar power systems in homes, with individual energy storage and computerised consumption management facilities.
Geothermal projects	■ A geothermal project by EDF Systèmes Énergétiques Insulaires in Dominique, which will also supply energy for Guadeloupe and Martinique.

2.2.4.2 Management of water resources

In view of the importance of water resources for its electricity and heat businesses (cooling for nuclear and fossil-fired plants; hydropower generation), the EDF group includes water risks in its risk management policy. Every investment decision is subjected to detailed risk analysis and impact studies. In France, a strategic committee for water has drawn up a water policy and oversees its implementation. This policy is a response to four major concerns: "preparing for tomorrow" (EDF must meet the demands of society in a more complex context for sharing the resource of water); adjusting to regulatory and societal change; contribution to multi-use management of water and local economic development; and optimising the energy producer's operational management of water.

2012, like 2011, was a very dry year with water shortages in **France**, EDF managed its reservoirs so as to preserve electricity output, support water flows for fossil-fired and nuclear power plants, and share water resources with local users (farmers, other industrial users, fishermen, and green tourism promoters), including in south-west France where rainfall and reservoir water levels were the most sensitive.

The Group is seeking to optimise water use by industrial facilities, especially fossil-fired plants. In **Italy**, a rainwater recovery system has been installed at the Torviscosa plant to redirect water back into the operating process, and at the Marghera Levante plant waste water is sent to a treatment centre so it can be reused in other industrial processes.

In **Poland**, modernisation of the water demineralisation and decarbonisation station was completed in 2012 and water consumption is now at minimum levels.

Group figures, in billions of m^3	**2012**	2011	2010
Cooling water drawn	54.8	55.2	53.9
fresh water (including brackish water)	28.0	26.8	n.r.
Cooling water returned	54.2	54.6	53.3
fresh water (including brackish water)	27.5	26.3	n.r.

n.r.: not reported.

Nearly 99% of the volumes of water drawn is returned to the natural environment, in compliance with local rules on quality and temperature.

EDF is increasingly active on the international scene, through the World Business Council for Sustainable Development (WBCSD) Water working group (EDF joined the Water Leader Group in 2010), and through the World Water Forum.

At the sixth Forum (WWF6) held in Marseille in March 2012, EDF promised to invest the resources required for development with the scientific community of methods and tools to assess the water footprint of its electricity generation activities in its installations' local areas, in order to extend its knowledge of action synergies between water and electricity.

The EDF group made commitments to:

- control the water footprint of its electricity generation activities, and more particularly:
  - to continue improving performances in terms of water drawings and water consumption by existing and future power plants;
  - to seek the most efficient use of the water possible, at the level of local administrative areas and water catchment basins.
- create some value locally, and incorporate the aim of minimising its water footprint from the design phase whenever an electricity generation project is in development, in line with its CSR commitments. In particular, the EDF group has undertaken to use the IHA's Hydropower Sustainability Assessment Protocol for its hydro-electricity projects;
- carry on the work begun for preparation of the WWF6 on the linkages between water, energy and food, in particular with the CGIAR (Consultative Group on International Agricultural Research) and the IHA. Wetlands International[1] decided to join this commitment by pursuing research into water-food-energy interactions.

2.2.4.3 Ground management

The Group's industrial activities can cause ground pollution. An action plan exists for all Group real estate assets, consisting of four stages:

- identification of real estate sites (this stage is complete for EDF);
- identification of sites potentially affected by pollution;
- analysis of soil samples from the potentially polluted sites, beginning with sensitive areas;
- monitoring those sites to control sources of pollution and develop a management plan, and lastly rehabilitation where relevant, depending on the future use and regulatory requirements.

Askarel transformers

European directive 96/59/EC of 16 September 1996 requires an inventory of equipment containing PCBs and PCTs[2], together with a national plan for decontamination and the gradual elimination of these substances, which are principally found in certain electricity transformers and condensers.

Decontamination of equipment with containing more than 500ppm PCBs was completed by the regulatory deadline of 31 December 2010 (70,000 transformers were removed between 2006 and 2010). ERDF has since embarked on depollution of transformers with PCB content below 500pm, ahead of the regulatory requirement to do so. 10,000 such transformers were treated in 2012.

Phytosanitary products

The Group's Real Estate division launched an inventory of phytosanitary product consumption in 2010 across all property sites managed in France. This brought results: in 2012, consumption was reduced by 21% compared to 2009 levels.

1. *Wetlands International: an international nonprofit organisation for conservation and restoration of wetlands.*
2. *Polychlorinated biphenyls (PCBs) and polychlorinated terphenyls (PCTs).*

2.2.5 Climate change

Thanks to the high proportion of nuclear and low-carbon renewable energy plants in its generation fleet (including hydropower facilities), the EDF group firmly intends to remain the leading energy operator in action to fight climate change and reduce greenhouse gas emissions. It subscribes to the EU objective of cutting emissions by at least 20% between 1990 and 2020, taking into account the diversity of local energy situations.

The Group is addressing the issue of climate change by investing in low-carbon or carbon-free generation facilities, including renewable energies (see 2.2.4.1) and nuclear power, with the aim of achieving installed generation capacity of 160 GW (net) by 2020, 75% of which do not emit any CO_2.

Meanwhile, the Group's strategy also involves helping customers to reduce their own CO_2 emissions by creating and promoting eco-efficient packages and advice on rational energy use.

2.2.5.1 Reducing CO_2 emissions by industrial facilities, particularly in generation

In 2012, the Group produced 79.803 million tonnes of CO_2 emissions worldwide. In France, EDF produced 16.409 million tonnes of CO_2 even though close to 96% of electricity generation emits no CO_2, bringing its specific emission rate to 35.2g CO_2/kWh.

CO_2 emissions by electricity and heat generation, in g/kWh

	2012	2011	2010
EDF group	117.0	99.6	108.9
EDF	35.2	30.4	40.1

EDF has several levers to reduce its greenhouse gas emissions:

- in the short term, optimisation of the generation fleet by improving operating performance;
- in the longer term, adapting the generation fleet: renewing plants (combustion turbine and combined-cycle gas plants), protecting hydropower potential, developing renewable energies and downgrading the highest-pollution facilities.

Fossil-fired plants

The environmental performances of fossil-fired plants have been constantly improved in response to the progressively stricter regulatory requirements. Investment programmes incorporate the requirements for improvement of air quality and reduction of atmospheric emissions. They also respond to the regulations on greenhouse gases, taking into consideration security of supply and the cost of fossil fuels.

Since the $DeNo_x$ systems to reduce nitrogen oxide were put into operation in 2007 and 2008, atmospheric emissions have fallen considerably. In **France**, EDF is continuing its "$BasNO_x$" emission-cutting projects at reactor 3 of the Porcheville and Cordemais plants. With the exception of the Martigues site which is governed by specific regulations, all oil-fired facilities now use oil with very very low sulphur content (0.55% sulphur). With R&D, EDF is continuing studies on reducing NO_x emissions through the Sperone Q600 project (low-NO_x configuration studies to optimise boiler operation).

In **Italy**, Edison's fossil-fired fleet consists entirely of high-efficiency, low-carbon CCG plants.

In **Poland**, the fossil-fired plants are particularly challenged by pollutant emissions in the air. Most of EDF Polska's boilers are now fitted with low-NO_x burners. In preparation for application from January 1, 2016 of the EU's Industrial Emissions directive that will limit sulphur dioxide (SO_2) and nitrogen oxide (NO_x) emissions to 200 mg/Nm^3, EDF Polska issued a call for tenders in late 2011 concerning installation of desulphurisation systems in the EC Krakow, Kogeneracja and EC Wybrzeze cogeneration units.

The Group is pursuing its renovation and modernisation programmes for existing fleets. In **France**, two CCGTs were commissioned during 2011 and 2012, at the Blénod (430 MW) and Martigues (465 MW) sites. The programme will continue in 2013 with commissioning of Martigues' second CCGT (also 465 MW), and the start of excavation work for the CCGT at Bouchain (250 MW) in north France. In late 2011 EDF signed a partnership agreement with General Electric for joint development of a new-generation CCGT at the Bouchain site. It will use FlexEfficiency50 technology, and benefit from the best technical performances (efficiency raised to 61%, 3-4% higher than a traditional CCGT) and environmental performances (CO_2 emissions cut by 10%). Commissioning is currently scheduled for late 2015.

From 2013, these three CCGs will replace nine 250 MW coal-fired plants and one 600 MW unit, eliminating SO_2 emissions, halving CO_2 emissions and cutting NO_x emissions by two thirds.

In the **United Kingdom**, construction of the new combined cycle gas plant at West Burton (3 units with combined power of 1,300 MW) was finalised in 2012. The first unit came on line in 2012 and commercial output begins in early January 2013, followed by the other two units also in the early part of 2013. Serving 1.5 million customers every year for a forecast operating lifetime of 25 years, this plant will contribute to achievement of EDF Energy's objective for 2020: to cut specific CO_2 emissions by 60%.

Finally, concerning CCS (Carbon Dioxide Capture and Storage) technology, the EDF group is participating in post-combustion and oxy-combustion harnessing projects with both Group and non-Group industrial partners, and studies concerning the transmission and storage of CO_2. A carbon capture demonstrator is currently being built at Le Havre in conjunction with Alstom and Veolia Environnement, with the support of the French environment and energy management agency ADEME.

2.2.5.2 Diffuse greenhouse gas emissions

A plan to cut emissions from EDF's buildings and vehicle fleets has been in application since 2010. In addition to direct emissions by its industrial facilities, EDF is committed to reducing its diffuse emissions from office buildings, company vehicles and business-related travel, and to promote a DSM programme with Group employees.

The EDF group manages a significant real estate portfolio (more than 4.5 million m² excluding electricity generation buildings). The Group monitors and seeks to reduce the environmental impact of all its buildings, whether owned outright or leased.

The targets for reduction of diffuse emissions by the service buildings owned and leased by the Group draw on the following levers:

- DSM actions through adjustment of the way installations are operated;
- optimisation of surface occupation;
- renewal of the portfolio of owned buildings;
- use of the best available technology;
- application of energy performance contracts for all office locations under subcontracted management.

To support this plan, EDF joined the International Sustainability Alliance (ISA) in 2010. The ISA's main objective is to contribute to development of sustainable buildings at European and worldwide level. Since this primarily requires good knowledge of the current portfolio's actual performance, ISA members have joined forces with the BRE (Building Research Establishment) to create an environmental database currently covering some 10,000 buildings. Environmental data are translated into key performance indicators on energy and water consumption, CO_2 emissions, and waste production, in line with the indicators prepared in other international initiatives (including the Global Reporting Initiative).

Company Commuter Plans have already been introduced in most of France and are being rolled out progressively to all Group companies.

Each Group company now has its own specific strategy adapted from the Group strategy, as appropriate to its business and the energy environment in which it operates.

2.2.5.3 Demand side management

Promoting energy efficiency to all customers is an integral part of the EDF group's sustainable development policy, and one of the principal levers in the battle against climate change. Regular communication and feedback is developed between EDF, EDF Energy, Edison, and EDF Luminus to optimise both customer relations and the efficiency of product offerings designed to control energy consumption.

In **France**, in connection with the Environment Round Tables known as the *Grenelle de l'Environnement*, EDF is actively involved in developing offers that encourage customers to control their demand for energy and give priority to the lowest-carbon generation methods.

This commitment to energy control is guided by the energy saving certificate system, which assigns every supplier obligations to save energy with customers. A three-year target saving is defined and allocated between operators based on their sales volumes:

- 54 TWhp for the first period, from 1 July 2006 to 30 June 2009;
- 345 TWhp for the second period, from 1 January 2011 to 31 December 2013.

In its sustainable development policy, which was adjusted in March 2012, EDF has set itself the goal of accompanying all customers in the move towards a cumulative reduction of 2 million tonnes in CO_2 emissions between mid-2009 and 2013, by stepping up promotion of energy efficiency in its marketing campaigns. The company takes action by marketing offerings that give customers better control over their energy consumption, or by recommending qualified partners to them. One essential aspect of its work concerns improving insulation in the homes of people with low financial security (see 2.3.3.1).

DSM action by EDF with residential customers in 2012

Mainland France	
Promotion of energy saving	■ Launch of eight commitments entitled "EDF & me" to residential customers; the 5th concerns helping customers to consume the necessary energy better.
	■ Online promotion of environmentally-friendly behaviours and free advice on efficient insulation and heating for residential customers.
	■ Approximately 70% of the advertising budget is devoted to promoting energy saving in the residential customer segment.
	■ Ongoing funding of training in saving energy, for employees and people in the building sector (50,000 professionals trained since 2008); the course is being opened up to materials suppliers and project managers.
Awareness-raising/information	■ Trials with free "Energy Label" advice, that shows residential customers the heat efficiency of their home. This will be adopted for all customers in 2013.
	■ Online availability of self-diagnosis services accessible to all business and local authority customers, so they can compare their energy consumption with standard ratios and contact an adviser if they wish.
	■ Introduction of a Network for Energy Efficiency: around ten businesses and authorities from the same employment area meet over three years to share ideas for more efficient energy use.
	■ 5th low-carbon architectural competition, intended to encourage firms, architects and project commissioners to design innovative homes that meet the most advanced energy and environmental efficiency criteria.
Energy-efficient offers and advice	■ Development of the "energy and fluid optimisation" service, which enables industrial companies to measure their consumption in real time for each production line, site, period and product, and receive advice on areas for optimisation that can cut consumption levels.
	■ Development of the Energy Productivity Plan with large firms: EDF makes a commitment to make energy savings (and is rewarded by a share of the savings achieved over a multi-year period).
	■ Launch of the City Energy Prospects offering to assist local authorities with their energy policies (local energy generation systems, electric mobility, energy efficiency in buildings).
Heat surveys of buildings	■ Reinforcement of the home assessment offer named *Objectifs Travaux* which attracted 13,000 new customers in 2012 (100,000 in all since the initial launch).
	■ General rollout in EDF stores of the heat diagnosis service that enables customers to identify heat losses from their homes (2,000 customers).
Financing solutions	■ *Prêt Habitat Neuf* loans for buyers of newly-built homes and *Prêt Rénovation Bleu Ciel®* for buyers of existing homes, provided by EDF via its subsidiary Domofinance.
	■ Introduction of a loan for energy renovation of collectively-owned housing.
	■ Partnership with Oseo to promote a loan for environmental and energy efficiency to business customers and local authorities.

Corsica and overseas French territories	
Awareness-raising/information	■ In Corsica, introduction of *Jour'Eco*, an online alert system that encourages moderate energy use in peak periods and conveys the ADEME's recommendations for lower consumption.
	■ Organisation of the first Energy saving festival village in Guadeloupe, to raise awareness of energy efficiency among operators in refrigeration and solar power, planners and architects.
	■ In Guadeloupe, joint launch with the ADEME and the NGO Prioriterre of the "Positive energy family" challenge, to encourage individuals to cut energy consumption by at least 8%.
Management of consumption	■ Development of sustainable development agreements with local authorities, in which EDF undertakes to contribute to their investments in energy control; signature of a heat renovation convention on Réunion island.
	■ Launch of the Energy Box in Corsica, to reduce energy consumption and foster incorporation of renewable energies.
	■ Opening of a Business Club in Martinique, bringing together the principal firms on the energy efficiency issue (this generated more than a hundred energy assessments).
	■ Launch of Citeco, a scheme reserved for local authorities in Réunion Island, offering grants for investment in a range of energy-efficient solutions (e.g. €100 per streetlight up to a maximum 20% of the total investment).
2012 action by Group companies	
EDF Energy, United Kingdom	
Management of consumption	■ Regulatory contribution to the government's Community Energy Saving Programme for the period 2010-2012.
	■ Continuation of the EcoManager energy monitor for residential customers, showing energy consumption by electric appliances in order to help people cut energy use; 257 customers signed up in 2012.
Energy efficiency	■ Introduction of online self-diagnoses of energy use (more than 19,000 since the launch in mid-2011).
	■ Promotions of energy efficiency measures on the back of all customer invoices.
Edison, Italy	
Awareness-raising/information	■ Sponsorship of the TV programme "Mr Green is coming", which promotes lower energy consumption through learning environmentally friendly habits.
Energy efficiency	■ Independent electricity generation for industrial customers (installation of solar facilities for the Mapei and Roche groups).
	■ Design of an energy-efficient offering for the tertiary sector.
Électricité de Strasbourg, France	
Monitoring consumption	■ Roll-out of three new services for small business customers (Energy Control Advice, Consumption measurement and Thermal Imaging) to help them monitor consumption levels and control energy use.
EDF Luminus, Belgium	
Management of consumption	■ Continuation of the "Luminus Bonus" offer, a bonus paid to individual customers whose energy consumption was lower than in the previous year; promotion of this offer to 75,000 customers.
	■ Online consumption monitoring service (the Mijn Verbruik/My Consumption programme).

Electric mobility

In France, EDF has invested in research and development of solutions to promote electric mobility. Together with several different manufacturers, public research institutes and local authorities, it participates in development of new vehicles (buses, delivery trucks, "cherry picker" vans), works on improving battery discharge time and overall battery life, and contributes to the improvement of recharging infrastructures (communication capacities with all types of vehicles, geolocalisation, monitoring to avoid spikes in consumption, etc). The company has become involved in commercial activity as an electric mobility operator, launching electric vehicle rentals and conducting experiments in self-service shared electric cars via its subsidiary Sodetrel.

In Belgium, EDF Luminus and The New Drive are helping businesses and public authorities to progressively convert their car fleets to electric cars, through the GreenDrive Business Pack. Together with Renault, the company is marketing ThePluginCompany service to some twenty business customers, offering the chance to test drive an electric car for one week.

Smart grids

The European Commission has made modernisation of electricity meters a legal requirement: under a 2009 directive, by 2020 80% of meters must be "smart meters" which enable users to control their consumption.

Making new information and communication technologies a more integrated part of modern electricity networks will help bring about the transition towards a carbon-free energy economy:

- the new grids will facilitate inclusion of intermittent renewable energies, and adoption of new uses (heat pumps, electric vehicles/rechargeable hybrid vehicles, etc), both key factors for the future of distribution networks. The aim is to create mesh networks equipped with remote control systems and software to identify damaged areas in the network, and compensate for any shortfalls or even optimise electricity deliveries. The Group's distributors are cooperating on these new networks. Along with other European distributors ERDF took part in the launch of the "EDSO for smart grids" association created to share experiences and establish an industry standard;
- the new grids will allow consumers to take charge of their energy use, to achieve greater energy efficiency in interaction with the network.

To meet this requirement in France, ERDF and the French energy regulator CRE launched the "Smart Meters" project to modernise the 35 million electricity meters all over France. More than 250,000 smart meters have been installed in the Lyons and Indre-et-Loire areas of the country in an initial experiment.

ERDF coordinates the GRID4EU project

ERDF is to coordinate this major initiative, which has been set up as part of the European Commission-financed smart grid research programme. GRID4EU is the largest programme for smart grids co-financed by the European Union (€25 million of the total €54 million cost), and will involve a consortium of six European distributors representing 50% of customers in Europe.

The aim is to work together to move forward on:

- integration of generation from renewable energy sources;
- automation and security of the electricity network;
- effective customer participation in consumption management;
- support for development of electric vehicles and electricity storage solutions.

2.2.5.4 Adapting the Group's businesses to climate change

As climate change directly affects energy demand and the physical environment in which generation, distribution and transmission are carried out, the EDF group has a strategy for adaptation to climate change, adopted by the Sustainable Development Committee in June 2010. This strategy concerns current and future industrial facilities, customer offers, production/consumption optimisation, and R&D themes. It is organised around the following aims:

- evaluating the impact of climate change (currently in operation and predicted) on installations and activities;
- adapting the installations concerned to reduce their sensitivity to extreme weather conditions;
- taking future weather and climate into consideration in the design of new facilities;
- improving resistance to extreme changes and situations that are harder to predict.

2.2.6 Preserving biodiversity

Like the struggle against climate change, preserving biodiversity is a major priority for the EDF group, as the owner of large reserves of land, mostly located in France in or immediately next to protected natural areas. The Group constantly monitors the environmental impacts of its industrial activities in order to better control and reduce them.

The Group takes environmental offset measures in application of European and national regulations. Most cases concern applications for permission to destroy protected species due to work on construction or maintenance of industrial installations (around 15 applications in France and the UK since 2008).

In France, EDF is testing various environmental offset methods and ways of assessing the eco-systemic services it uses (e.g. current testing at the Cordemais fossil-fired plant of the Ecosystem Service Review) and represents the Eurelectric association in the European Commission's "No net loss" working party. After the French Ministry for Ecology, Sustainable Development and Energy launched a call in 2011 for projects to study feasibility of environmental offset mechanisms, EDF was selected to conduct an experimental operation of ecological offset offers in the Rhone-Alpes region of France. The project involves rehabilitation of 120 hectares of Alpine land in the Belledonne mountains to create a favourable habitat for flora and fauna; in particular, introducing measures to reintroduce the black grouse, which is an endangered species. The restored land will be used both to offset EDF's work on hydropower facilities, and to meet offset needs for other projects specific to the region: development of winter sports stations, town planning projects, railway projects, etc. The operation is scheduled to last 8 years. Afterwards, the land will remain the property of EDF, but will be incorporated into a National reserve for hunting and wildlife.

The managements of industrial installations have implemented biodiversity strategies. The hydropower fleet applied the action plan for its new 2010-2012 strategy. One key action was adapting site management for maintenance of the Sarrans dam, which is located in the Natura 2000 protected zone: to preserve the red kite and the peregrine falcon, low-noise machines (electric cranes) were chosen to reduce unnecessary noise in the reproduction period. In 2012 the management of EDF's fossil-fired fleet began a strategic biodiversity plan to take a detailed census of local regulations for each of its industrial sites, and identify protected areas and biodiversity preservation areas for each plant. In a similar vein, steps are being taken to list the available land at the nuclear power plants, in order to map out the natural areas.

The research and development aspect of the framework agreement for protection and restoration of water environments signed in 2011 by France's national water office (ONEMA) and EDF gave rise to the following operations in 2012:

- report on behavioural studies of eels, and how river obstacles affect their migration and mortality (previously the "Eels and industrial facilities" R&D programme launched in 2008 by the national eel committee); EDF has made a significant contribution to this research by testing a bristle brush eel pass at the high dam at Golfech (Garonne), preparation and testing of an automatic photoelectric counter for small eels, on-site evaluation of mortality in large turbines, studying how eels move past hydroelectric facilities along the Gave de Pau river and a series of obstacles along the Rhine, testing the Migromat® biomonitor in the river Shannon in Ireland, testing an ultrasound repellent system near two hydropower plants on the river Gave de Pau, and developing a working turbine management model on the river Loire;
- heat and hydrobiology research programme (approved by the Ministry of Ecology and the ASN) examining the preferences and heat tolerances of the main species of fish, the behaviour of fish in varying temperatures, the role played by temperature in the spatial distribution of species, and the influence of temperature on the behaviour of bacteria and algae (results to be reported in 2013).

The Group is pursuing a policy of biodiversity partnerships to encourage exchanges of technical knowledge, support projects led by associations and implement practical technical projects. Priority is given to projects with EDF's longstanding NGO partners: the Bird Protection League *(Ligue pour la protection des oiseaux)*, the Coastal Protection Agency *(Conservatoire du littoral)*, French Nature Reserves *(Réserves naturelles de France)*, the French Committee of the International Union for Conservation of Nature, and the National Federation for Fishing in France *(Fédération nationale pour la pêche en France* (see 2.3.2.3, New orientation for the sustainable development partnership strategy)).

Other measures to protect and restore biodiversity in 2012

Edison (Italy)	■ Introduction of biodiversity mapping of the areas around all the company's generation sites, to prioritise action on sites affected by Italy's national strategy for biodiversity. Work on setting up operational and technical partnerships with environmental NGOs active in the sensitive areas concerned.
EDF Energy (United Kingdom)	■ £120,000 contribution to the development fund for the Suffolk Coast and Heaths Area of Outstanding Natural Beauty, as part of the project to extend the dry fuel store at the Sizewell B plant. The contribution is for restoration of natural habitats, creation of footpaths, improvement of disabled access and tourist information campaigns.
EDF Énergies Nouvelles	■ Commitment to regular biological and ecological monitoring of all new generation sites; introduction of eco-management plans for these sites, with differentiated mowing of the covering vegetation and no chemical fertiliser or pesticide.
	■ Continuation of the biodiversity preservation programme on the photovoltaic site at Toul (Meurthe-et-Moselle), with installation of shelters to protect bats, integration of landscaped woods and hedges, and planting melliferous flowers plants for bees.
UTE Norte Fluminense (Brazil)	■ Reinforcement of management instruments for the Macaé de Cima environmental protection zone and the Três Picos state park to preserve the primary Atlantic forest, in partnership with the State institute for the environment (environmental offset programme).
	■ Funding through the Ramsar Convention of a study on the wetlands of north Rio state, which are currently under threat.
ERDF (France)	■ Continuation of the action plan to save the Bonelli's eagle.
	■ Introduction of a differentiated pruning policy along grid lines, according to the species of vegetation encountered.
	■ Partnerships with *France Nature Environnement* and the Bird Protection League (Ligue pour la protection des oiseaux), to reduce the risks of electrocution for birds.
EDF Guadeloupe	■ Signature in May 2012 of a partnership with the association Kap'Natirel, to protect sea turtles (study of behaviour and protection in the laying period).
	■ Implementation of the partnership signed in 2011 with Port Autonome de Guadeloupe and the Comité des pêches to rebuild a coral environment using recycled concrete electricity poles. The poles are dropped offshore where they provide sealife with similar protection to coral reefs.
EDF Guyane	■ Ongoing work by the Scientific Committee on water quality in the Petit-Saut reservoir, particularly changes in the way immersed vegetation decomposes. The results of these observations are used in UNESCO-sponsored research into hydropower in the tropical environment.
EDF Luminus (Belgium)	■ Pursuit of a study on mortality and migration of salmon and eels; this is a prerequisite for the Lixhe hydropower plant to be authorised to operate.
	■ Calculation of the ecological footprint of the companies' industrial activities (scopes 1, 2 and 3 of the Greenhouse Gas Protocol).
EDF Real Estate division	■ Campaign to reduce use of chemical weedkillers and fertilisers on all sites (cut by 8% a year on average in the hydropower fleet), or eliminate it completely in favour of manual weeding, thermal steam weeding, late mowing and fallow land including native wild flowers.
EDF hydropower generation and engineering division (France)	■ Inauguration of the fish pass at Jons sur le Rhône in November after 10 months of work.
	■ Continuation of operations under national action plans, particularly in favour of protection of the Pyrenean desman and bearded vulture (organising maintenance work for high dams according to the nesting periods).

2.3 Societal information

The EDF group's societal policy aims to create and develop bonds and dialogue with all external stakeholders at all levels (worldwide (UN, NGOs), regional (European Union, etc.), national and local), to optimise and strengthen connections with vulnerable customers, by helping to reduce energy poverty and make intraGroup links more active.

This policy incorporates, supports and reinforces the existing initiatives, ensuring they are coherent within the Group. The principles of the policy comply with the United Nations Global Compact and are part of the EDF group's sustainable development policy, its CSR agreement and the public service contract.

2.3.1 Ethics and transparency to stakeholders

The Group Management's decision to renew and adjust its ethical guidelines (the 2007 Ethics Guide) led to concerted elaboration of a new Group charter of ethics was during 2011. This Charter was adopted by the EDF group's Management Committee in September 2012 and approved in October by the Board of Directors' Ethics Committee. It complements the laws, regulations and national and international conventions that apply to each company and each employee of the Group. Its straightforward, common-sense commitments are intended to encourage every employee, whatever his or her country or position, to behave in an exemplary way in line with the EDF group's values of respect, responsibility and solidarity. These ethical commitments translate the public-interest mission of a worldwide energy operator into the Group's core businesses. They were drawn up in conjunction with Group companies and divisions; test groups were formed involving employees and managers to ensure that good adherence to the subjects proposed, with respect for the specific culture of each country where EDF operates. The Group's new standards will be in general application by the end of 2013.

The Chairman and CEO's decision of 14 September 2010 on anti-fraud action in the Group, with its basic principle of zero tolerance, has been in application since late 2010. To ensure this decision is correctly implemented, the managers have prepared and adopted anti-fraud plans in the principal entities, supported by the distribution of the Group fraud prevention guidelines which specifically address risks of fraud and corruption.

On the issue of corruption, procedures for validation of intermediaries' contracts have been reinforced following application of the Chairman's decision of 31 May 2010 on consultancy and agency agreements.

A programme to raise awareness of EDF's criminal risk (Chairman's decision of 28 July 2011) was launched in response to the emergence of higher exposure to this type of risk as the Group has expanded and diversified its establishments across the world. This also results from tightening of anti-corruption laws in the US (the 1997 Foreign Corrupt Practices Act, reactivated in 2008) and the UK (the Anti-Bribery Act, effective from 1 July 2011): due to the extraterritorial aspect of these laws, international anticorruption regulations are taking shape.

To reduce the Group's exposure to the risks associated with application of competition rules, the competition compliance programme deriving from the Chairman's decision of 22 December 2010 extended its awareness-raising and training action in 2011 to the greatest possible number of operative staff in all subsidiaries, both in and outside France.

All these ethical actions are subject to the Group's internal control, which was broadened in 2011 to generalise practices that encourage auto-evaluation and sharing of good practices, in line with the recommendations on Ethics and Anti-fraud measures that make up some of the first sections of the Group's internal control guide.

The scope and practicalities of EDF's ethical alert procedure, which also receives employees' calls requesting intervention by the company on the free "life at work" number, were validated by the French data protection agency CNIL on 24 November 2011. EDF's ethical delegate examined 136 alerts in 2012, 132 of which were given through the alert system and 4 through the free number by a person who then waived anonymity. The delegate dealt with 48 ethical alerts directly. They related to declarations of harassment (17), complaints about discrimination (9), problems to do with professional recognition (8), environmental questions (4), cases of fraud (8) and matters of social distress (2). 39 cases of disputes with customers were transferred to the Mediator, and 49 external alerts were transferred to the Information System's internal security service as hoax messages.

In 2011, EDF, DONG Energy, Enel/Endesa, E.ON, GDF-SUEZ/Electrabel, RWE and Vattenfall/Nuon, later joined by Fortum, all worked together on the Bettercoal initiative to improve responsible commitment by businesses belonging to the coal supply chain, with particular emphasis on respect of fundamental rights at mining sites. The aim is to guarantee respects of those rights, i.e. human rights, working conditions, workers and community life, and environmental protection. European energy operators and North American mining companies are frequently criticised for failing to respect rights, as was the case in 2010 for certain companies in connection with coal imports from Colombia, forcing North European companies to limit their sourcing at very short notice. EDF Trading, a fully-owned Group subsidiary and vital actor in the European coal industry, supplies approximately 10 million tonnes of coal a year to plants belonging both to the EDF group and other firms. Through its CEO, the EDF group signed up to the Bettercoal charter in January 2012, to support EDF Trading's activities in coal sourcing, keep EDF's position in socially responsible investment funds, and control the risks to its image and reputation. During the first half of 2012, a code (common standards) of social, environmental and ethical principles was formally defined, in line with existing international standards (issued by organisations such as the International Labour Organisation) and existing measures concerning the extractive industries (e.g. the Extractive Industries Initiative). Audits and auto-evaluations of suppliers under this code will cover suppliers, including mining sites, and audit results will be recorded in a dedicated database managed by Bettercoal and shared by its members in compliance with antitrust rules.

2.3.2 Dialogue with stakeholders

All Group companies engage in dialogue with stakeholders, each using its own procedures. This dialogue covers 5 areas:

- local consultation concerning generation sites and proposed new industrial establishments;
- organised customer relations, suppliers, sector partners, socio-professional associations, local authorities and national and international institutions;
- operational partnerships with NGOs and the academic world;
- gatherings of experts and representative personalities in independent boards or panels to provide Group managers with external critical analysis;
- information and education in energy and sustainable development issues, especially for young people.

2.3.2.1 Informing local populations near generation sites and consultation on industrial projects

In **France**, 38 local information commissions consisting of elected officials, State representatives, associations and professional bodies keep local residents informed of nuclear facility activities, as required by regulations. EDF works with these commissions at its power plants and provides the information needed to fulfil their mission.

In addition to this regulatory system, EDF has set up a public information centre at each nuclear power plant to inform local populations of the plants' operations and impacts, energy-related issues, control of energy consumption and presentation of business lines that will provide jobs in the electricity sector in the future. At the 2nd Industry Days held on 6 and 7 October 2012, more than 15,400 people visited EDF's generation sites (45% came to nuclear plants, 38% to hydropower plants and 17% to fossil-fired plants). In line with the past two years, EDF's image with local populations remained broadly positive, with 86% declaring it has a good image (83% in 2011).

In hydropower, EDF pursued its permanent information and safety campaigns to warn water users of the risks of variable water flow in the rivers, including installation of boards with photographs showing the "before and after" situation. Hydroguides were again employed in the summer season, and were able to put forward useful proposals for additions or changes to the information boards, or repositioning of lifebuoys.

For new industrial projects, Group companies are reinforcing their consultation and information approaches based on tried-and-tested models used by NTPC for the Nam Theun dam in Laos, Edison for the Rovigo regasification terminal and the ITGI (Interconnector Turkey-Greece-Italy) gas pipeline in Italy, and EDF for installation of the marine turbine demonstrator at Paimpol-Bréhat in France.

In France, for the preparation of construction of the CCG plant at Bouchain scheduled for commissioning in 2015, discussions took place with the various stakeholders concerned: local authorities, the regional environmental, planning and housing authority, the Nord-Pas-De-Calais regional council and several associations. The public inquiry then opened in autumn 2012 and the conclusions are expected for early 2013.

In the United Kingdom, EDF Energy organises regular meetings with local stakeholders (quarterly or three to four times a year depending on requirements) covering matters related to its business activities and impacts.

In 2012, EDF Energy opened four of its new visitor centres providing information on nuclear power, electricity generation and the company's businesses through exhibitions, films and interactive displays. Three more centres are due to be opened in 2013.

Also, an independent study of the populations living close to generated sites showed some improvements since 2011, with a 3% rise in favourable opinions of nuclear power.

2.3.2.2 Advice from independent panels

Several panels of experts provide their outside view to Group managers and companies: the Sustainable development panel at Group level, the Sustainable development, Scientific and Medical Councils at EDF in France, the Stakeholder Advisory Panel for EDF Energy, and the Social Committee at Edison.

The Group Sustainable development panel is a body for dialogue made of independent, global specialists in fields relating to the Group's activities or who represent the expectations and interests of civil society. It also includes, as automatic statutory members, the Chairmen of the Sustainable development and Scientific Councils, as well as the Chairman of EDF Energy's Stakeholder Advisory Panel (created in 2006). The Group Sustainable development panel provides advice and a critical assessment of the Group's commitments to sustainable development and their implementation. It meets once or twice per year with the Group's executives. In 2012, it met to discuss the theme of the EDF group's CO_2 strategy.

On 13 December 2012 a new body, the Sustainable development council, was formed with Group stakeholders by merging the previous Environmental and Social Councils. The members of this new Council are representatives of the issues associated with the sustainable development impact of the Grou's installations and businesses. One of its main aims is to challenge managers and experts at EDF over the company's proposed options regarding sustainable development. The Council's first meeting, on the subject of energy poverty in France, took place on 13 December 2012.

The EDF Scientific Council is a consultative body that gives the company well-known senior scientists' opinions and advice on long and medium-term research activities. It meets three times a year to discuss specific themes, with detailed reports and recommendations to EDF's Chairman prepared before the meeting. The subjects covered in 2012 were the future of electricity transmission networks and the back-end of the nuclear fuel cycle. A special meeting was also held for the Council members and CEO to discuss subjects of their choice relating to changes in the company's environment, and scientific and technological developments.

The EDF Medical Council, composed of leading personalities from the medical world, and university professors with a particular interest in public health, biophysics, ethics, workplace and environmental health, epidemiology and toxicology, is a body for reflection and advice on a number of current topics connected to EDF's activities. Its Chairman is Prof. André Aurengo of the French Academy of Medicine. The Medical Council held three plenary meetings in 2012.

The subjects discussed by the Council covered the essential health issues of current relevance – workplace health and environmental health. They included the health consequences of the Fukushima accident, plans for studies of infant leukaemia and residential exposure to magnetic fields, the reform of occupational medicine in France, the modalities of toxicological studies with the arrival of nano-materials, incorporation of recommendations on medical/professional monitoring of shift workers.

2.3.2.3 New orientation for the sustainable development partnership strategy

Each of the Group's partnership projects is now studied by the Partnership Committee. Sustainable development partnerships cover two aspects: biodiversity, and action against energy poverty and exclusion (on this second theme, see section 2.3.3.1).

Against the two developments of reinforced regulations and the new environmental governance resulting from France's *Grenelle de l'Environnement* Round Table, biodiversity is a factor in sustaining and developing EDF's activities both in and outside France. Application of the Group's Biodiversity Policy requires external expert input from organisations such as the Bird Protection League *(Ligue pour la protection des oiseaux)*, the Coastal Protection Agency *(Conservatoire du littoral)*, French Nature Reserves *(Réserves naturelles de France)*, the French Committee of the International Union for Conservation of Nature, and the National Federation for Fishing in France *(Fédération nationale pour la pêche en France)*. These longstanding partnerships have been established to foster sharing of technical knowledge and dialogue, support for the associations' projects and implementation of practical technical measures overseen by EDF's business lines and companies.

Achievements in 2012	
Bird Protection League *(Ligue pour la protection des oiseaux)*	■ EDF employees were involved in science programmes (the "Wetlands" inventories of migrating birds, the Observatory for garden birds). ■ Assistance with management of the natural areas around 5 generation plants: Aramon (fossil-fired), Penly (nuclear), Plobsheim, La Vanelle and Caradache (hydro). ■ Support in organising the first Birdfair festival in Paimbœuf.
Coastal Protection Agency *(Conservatoire du littoral)*	■ The "Large Lakes" programme (symposium on the function of large lakes, working parties on definition of the environmental issues associated with large lakes, publication of a book on large French lakes). ■ Restoration of a former industrial site around the Étang de Berre.
French Nature Reserves *(Réserves naturelles de France)*	■ Development of an environmentally-friendly footpath in the Petite Camargue Alsacienne nature reserve. ■ Restoration of plant species in the Pyrenees national park. ■ Training for EDF employees in management plans for natural areas.

Meanwhile, as the debate on the energy transition continues, the Sustainable Development division has continued its action with strategic partners in the form of think tanks and research chairs, for instance at Paris-Dauphine University. The partnership with the Nicolas Hulot foundation for nature and humans focused on support to the think tank founded by the association to consider the ecological transition, involving academics, researchers and top scientists with the aim of finding new ideas and proposals to govern the ecological transition, and making them known to the general public.

EDF still supports the *Institut du développement durable et des relations internationales*, a think tank set up by the *Institut des études politiques,* to develop its international dimension. EDF is providing support in three programmes that are closely related to its sustainable development activities and commitments: climate, biodiversity and the urban fabric. Through the Institute's Club Villes, EDF contributed its own experience to the "Emergent" project (under a French ecology ministry programme), which aims to analyse household energy consumption and identify the emergence of new behaviours in eco-districts.

Through the partnership with R20-Regions of Climate Action, a NGO covering 37 regions of countries from the north and south, businesses and financing institutions, EDF has continued the action for energy-efficient buildings begun with the East Morocco region in 2011: assistance with the regional energy efficient plan, formal definition of a charter of good practices for building professionals, preparation of training for public decision-makers.

2.3.2.4 Information on energy and sustainable development issues

In 2012 the Group's companies stepped up their programmes to raise awareness in the general public and young people of energy control and sustainable development issues, via internet or through events and conferences held in schools. These programmes are founded on partnerships with associations and the world of education.

Principal actions of 2012	
EDF (France)	■ A public pavilion presenting energy issues at the 2012 London Olympic Games. ■ Joint organisation of the exhibition entitled "Living in tomorrow, reinventing our habitats" with the *Cité des sciences et de l'industrie* museum in Paris, to raise awareness of campaigns for lower, efficient energy consumption. ■ Distribution of 5,000 copies of a brochure ("What can you do with 1 KWh?") at public events where EDF was a participant. ■ Reinforcement of the educational content on EDF's website for young people (http://jeunes.edf.com; more than 197,000 visits in 2012), with the online game *Mission économie énergie*, tests of environmentally friendly consumption, and the national launch of the Electis trophy for electricity and sustainable development, intended for secondary school students. ■ 1,957 talks on sustainable development issues given in senior schools at the request of teachers, in connection with the school curricula. ■ 2,900 talks on safety given in primary schools, including a section on saving energy in the home.
EDF Energy (UK)	■ Online educational programme The Pod, in partnership with the European Eco-School programme and the British NGO Eden Project, with the participation of 14,600 schools and 8 million children since its launch. ■ Further involvement in the partnership with the Cheltenham Science Festival to promote careers in science to school students, and support the apprenticeship scheme. ■ Support for the travelling Generation Science exhibition in Scotland.
Edison (Italy)	■ Continuation of the *Eco Generation. Schools is the climate's friend campaign* conducted with the NGO Legambiente in pilot schools (15 schools in 15 Italian towns), teaching pupils to assess their school's energy efficiency and helping them to look for ways to control energy consumption. It should develop into a permanent energy efficiency programme available to all schools, local authorities and the Ministry of Education. ■ Participation in an interactive exhibition at Milan science and technology museum. 400 secondary school students took part in a "Science and Technology of Energy Generation" workshop, an interactive journey of exploration through energy generation and consumption. ■ Sponsorship of the popular TV programme "Mr Green is coming", which teaches families how to cut electricity and gas consumption and provides advice on recycling.
BE ZRt (Hungary)	■ Information on energy issues for 1,000 young school pupils invited to visit the Hungarian company's co-generation plants.
Groupe Électricité de Strasbourg (France)	■ Advice on controlled use of resources and introduction of web pages on environmentally-friendly habits (http://ecocitoyens.es-energies.fr).
EDF Asia Pacific	■ Publication of a book on the uses of electricity and reasonable use of natural resources, intended for children in rural areas and distributed in China, Thailand, Vietnam and Laos. This book is now part of school curricula.

2.3.3 Societal affairs

The EDF group's societal policy is an integral part of the Group's sustainable development policy, in compliance with the UN Global Compact. Like the principles of the environmental and ethical policies, the principles of the societal policy are included in the corporate social responsibility (CSR) agreement.

The three main strategies of the societal policy are:

- to facilitate access to energy and energy eco-efficiency for vulnerable people;
- to contribute to the economic and social development of the areas covered by EDF;
- to contribute to the debate on sustainable development and EDF's activities, fostering local dialogue and knowledge of energy-related issues.

2.3.3.1 Contributing to action against energy poverty

The issue of energy poverty is growing across Europe, although the associated definitions, public responses and energy operator involvement vary widely from one country to the next. According to the latest statistics in France, some 3.4 million households (13%) were in a precarious situation regarding energy; in the United Kingdom the number is estimated at 5.5 million or 21% of the population[1].

Against this background, the EDF group is reinforcing its involvement in action against energy poverty, going further than the regulatory obligations and working with Governments, local authorities, non-governmental organisations and other stakeholders to promote the most efficient possible energy use, in order to reduce consumption costs and develop country-specific solutions and programmes to provide support for vulnerable households.

In France, in addition to operations conducted as part of public programmes[2], EDF's action has three focuses:

- help with paying bills;
- assistance to customers in difficulty;
- preventive action.

Help with paying bills: in 2012 EDF contributed €23 million to the *Fonds de solidarité pour le logement* (FSL) housing solidarity fund which helps customers in difficulty to clear their arrears; close to 190,000 households benefited have been helped by the fund. To avoid electricity supplies being cut off to any person defined as disadvantaged, EDF prolonged its "winter truce" period from 15 March (a legal requirement) to 1 April, and extended it to apply to all customers on social tariffs, not only households that received FSL aid the previous year.

Assistance: EDF increased the number of customers helped under its "Energy Assistance" system from 210,000 in 2011 to 324,000 in 2012, working with them to find appropriate solutions to their situations: deadline extensions, putting them in touch with social services, providing advice on making energy savings. EDF also became more involved in social mediation centres (Multiservice and Information points, National Agency for housing information) that bring it into closer contact with its customers, with opportunities to advise them about their rights and energy usage, and facilitate payment of their bills. In 2012, EDF was a partner in 170 mediation and contact points across France (150 in 2011).

EDF also supports campaigns to raise energy awareness with public social action centres, the charities *Secours catholique, Secours populaire, SOS Familles/Emmaüs France,* and *Unis-cités,* part of the Médiaterre programme.

In Corsica and French overseas territories, for the last three years SEI has distributed low-energy lamp kits and multisocket standby savers *(Packécos)* to disadvantaged customers, to help them control their electricity consumption. In 2012, EDF gave out *HydroEko* domestic water regulation kits that can cut energy consumption by electric boilers by up to 10%: 70,000 were distributed on Réunion Island, 15,000 in French Guyana, 20,000 in Martinique, 20,000 in Guadeloupe and 16,000 in Corsica.

In Guadeloupe, EDF has developed a partnership with a mixed-economy company for development to promote efficient energy facilities in social housing, and joined forces with the family allowance agencies to offer the most modest beneficiaries €100 aid to purchase low-energy household appliances.

Prevention: in partnership with other organisations, EDF develops campaigns against energy poverty by improving the energy efficiency of the most financially insecure households. EDF is a major participant in the *Habiter mieux* (Better living) programme headed by the ANAH agency for home improvement subsidies, through an agreement signed in 2011. EDF is committed to a financial contribution that could reach €49 million, and participating in identifying the households concerned. This programme aims to modernize heating in 58,000 homes occupied by low-income families over the period 2011-2013. It was launched by the Government in 2010, to help the most modest householders owning the least energy-efficient homes by financing and overseeing insulation and heating renovation work that should cut energy consumption by at least 25%. 13,000 renovations were begun in 2012. The programme is currently for owner-occupiers but is change significantly in 2013 when it opens up to tenants, with reinforced action for collectively-owned buildings.

This commitment adds to EDF's voluntary contributions, for instance to the *Toits d'abord* operation in a partnership with the *Fondation Abbé Pierre* concluded in December 2012, to build 2,000 homes for disadvantaged sections of the population. This follows the "2,000 homes, 2,000 families operation" which since 2009 has built and renovated energy-efficient social housing for 2,025 very vulnerable families.

EDF is also developing the *Montant de charges* offer intended to improve home insulation and cut CO_2 emissions. This offer covers existing and new buildings for the social housing market. The aim is to assist financial backers undertaking renovation or building work for buildings that qualifies for energy savings certificates. After assessment, EDF and the project backers agree on a rehabilitation programme and performance target. 151,000 social housing units were renovated in this way in 2012.

In other Group companies:

In addition to regulatory requirements and sponsorship operations, the Électricité de Strasbourg (ES) group's approach is based on the following commitments:

- voluntary reinforced contribution to the Housing solidarity fund (€100,000), which in 2012 provided assistance to more than 1,000 customers in financial insecurity;
- prevention of payment difficulties by training social actors and informing the populations concerned about how to manage consumption better;
- personally-tailored assistance to each customer in difficulty, keeping the energy supply at the contractual level while the customer takes the necessary administrative action with the social services;
- remittal of energy cheques via eight associations, under a convention to help customers in difficulty.

1. *Department of Energy and Climate Change: Annual report on fuel poverty statistics 2011.*

2. *EDF offers social tariffs in France for electricity (it is the only operator authorised to apply the Basic Necessity tariff) and natural gas (Special Solidarity tariff): it receives compensation for these tariffs through the Contribution to the Public Electricity Service (CSPE) and the Contribution to the special solidarity tariff for gas (CTSSG) respectively. Following a change in the regulations in March 2012 simplifying the terms for access to social energy tariffs and allowing qualifying persons identified as EDF customers to apply for those tariffs, more than one million households in mainland France, Corsica and the French overseas territories were able to benefit from the Basic Necessity tariff in 2012 (635,000 in 2011).*

ERDF works to detect customers in a situation of energy poverty and prevent cut-offs of electricity supplies regardless of the supplier concerned. In 2012, ERDF also signed two agreements with the National Committee of local systems and the national union of Multiservice and Information points so that households in difficulty can be better informed of the aid available to them.

In the United Kingdom, the government's Warm Home Discount Regulations (April 2011) introduced an obligation incumbent for 4 years on energy suppliers with more than 250,000 customers, requiring them to provide support for customers at risk or in a situation of energy poverty. This regulation replaced the action previously taken under suppliers' voluntary commitments. The combined amount of the obligation was £250 million in 2011/2012, then £310 million by 2014. EDF Energy estimates its expenditure at approximately £26 million in the first year.

EDF Energy applied the "Energy Assist" tariff to 145,000 customers in 2012. This tariff was discontinued for new customers in July and replaced by discounts on electricity bills under the "Warm House Discount" plan. 136,800 discounts of £120 were given in winter 2011/2012, and EDF Energy estimates that 190,000 discounts will be given in winter 2012/2013.

EDF Energy automatically applies the cheapest tariff on the market to all senior citizens identified by the Department of Work and Pensions. In April 2012, the company, which offers some of the cheapest standard prices for gas and electricity, launched "Blue+Price Promise", a package that informs all UK customers of the possibility of saving more than one pound a week on standard consumption, regardless of the supplier used. Every customer subscribing to this offer benefits from a frozen tariff until September 2013, and is not charged switching costs if they decide to change suppliers.

The UK government's "Community Energy Saving programme" (CESP) ended in 2012. It lasted three years and its objective was to upgrade home insulation in underprivileged areas (concerning over 100,000 homes). By 31 December 2012, EDF Energy had contributed £89 million to help 30,000 very vulnerable households. The CESP has now been replaced by a new obligation for suppliers (ECO), which incorporates the objectives of the CERT, a previous government programme to reduce CO_2 emissions. ECO is broader, and targets total renovation of residential buildings (full insulation plus heating), setting suppliers targets for reducing heating costs and CO_2 emissions for low-income families. EDF Energy's obligations for the period January 2013 – March 2015 are to save £500 million on heating and cut CO_2 emissions by 3.5 million tonnes.

EDF Energy continued:

- Its donations to the independent charitable trust EDF Energy Trust Fund (£1.9 million in 2012 for 2,493 households), which allocates aid to help families in serious debt after economic difficulties (serious illnesses, bereavement) and also gives personal advice on managing debt to local populations in the areas where it has establishments;
- Its support for the London Warm Zone, contributing to a study of 10,000 homes in the most disadvantaged areas of London, to identify possible beneficiates of grants for more efficient insulation and heating.

It also entered into new partnerships:

- funding the National Energy Action to increase knowledge of energy efficiency and energy poverty, not only in staff who are in direct contact with low-income families, but also the volunteers working for credit cooperatives;
- funding the Impetus Consulting initiative to help small social housing associations to support tenants experiencing energy poverty.

In Poland, Group companies that produce electricity and heat but have no dealings with residential customers are pursuing the agreements signed with towns, distributors and NGOs to help fragile populations, either by direct financial aid and energy cheques (EC Zielona Góra, Kogeneracja, EDF Wybrzeze, EDF Torun) or by supplying heat free of charge to organisations and establishments associated with local authorities (EDF Krakow).

In Hungary, in February 2012, EDF Démász set up an aid programme, in a partnership with the Hungarian branch of the Order of Malta, intended for the most vulnerable families who have unpaid energy bills.

2.3.3.2 Contributing to economic and social development of the areas covered by EDF

The EDF group wishes to live in harmony with the areas where it does business, and accordingly the impacts of its facilities and activities on local areas are identified and addressed. Opportunities for long-term contribution to economic and social development in the local area are sought from the outset, such that EDF makes a particular contribution to integration of vulnerable people. EDF is proud to be an actor in local social cohesion.

Contributing to local development and integration of vulnerable people

EDF is particularly attentive to its contribution to local economic development, and gives priority to local employment as far as possible.

Economic development and local job creation	
In France	■ Launch in 2012 of the "One river, one area for development" programme to provide expertise, support and funding for local actors and contribute to value and job creation, by developing local skills together with beneficiaries, and also by encouraging the emergence of innovative projects and economic activities of the future relating to water, energy and the environment. This requires financial resources, with funds set aside for the programme and local contacts for implementation. In the areas covered by the programme's offices, EDF hydropower embassies will progressively be installed in the heart of the valleys to support local development. The first economic development agency opened at Rodez in 2012, for development in the Lot, Truyère and Tarn valleys, with an annual budget of €3 million.
	■ More than 7,000 jobs were created directly and indirectly by the development of 1.5 GW in offshore wind power capacity in France, in association with Alstom.
	■ Promotion of inclusive purchases through different channels: ▪ a three-year agreement for inclusion of disabled workers (in the section on purchases from the protected sector and organisations where the majority of the workforce is disabled – the annual objective of €6 million was exceeded as €7.6 million of purchases were made from these protected and special sectors for EDF in 2012), ▪ socially responsible subcontracting agreement: EDF is stepping up purchases from organisations that foster social integration through employment (more than €1.5 million in 2012).
In Morocco	■ Commitment by EDF Énergies Nouvelles and its partners Mitsui and Alstom to use Moroccan firms for at least 30% of the construction work of the Taza wind power project.
Social integration of vulnerable people and young people	
In jobseeking support in France, by the end of 2012 EDF and ERDF had exceeded their objective of offering 1,000 disadvantaged unemployed people the opportunity to gain experience and qualifications through block-release training in a business line "with a future".	
In France	■ EDF has special programmes to train young people, particularly those finding it difficult to join work-study schemes. Examples are its *Trait d'Union* campaign set up by the Sales Division in the Paris region and the south of France, which actively helps young people to gain work and qualifications in customer service positions, *Tremplin* in south-west France and *Académie Bleu Ciel* in the north-west. In 2012, 200 people benefited from these schemes.
	■ In Flamanville, almost 490 jobless people, identified under criteria proposed by EDF and adapted by employment workers at local job centres, were hired to work through an organisation that fosters social integration via employment.

Contributing to local cohesion

On 28 September 2010, the French government and nine major public service operators including EDF signed a partnership agreement for more public service entitled + de services, designed to develop access to a range of services for France's rural populations. The aim of this partnership is to provide inhabitants of rural areas with a range of services in a single place. 60 new contact offices are to be opened with EDF participation, in addition to the sites already in existence. This experiment is being conducted in 22 areas of France and covers new Multiservice and Information points, and public service points mostly hosted by local authorities. The purpose is to simplify access for all types of user, by collaboration between signatories to the partnership and complementarities between traditional services, new technologies and physical multi-service offices. 21 of the 22 area contracts had been signed by the end of 2012, and the remaining contract for the Cher area is due to be signed in early 2013.

2.3.3.3 Subcontracting and responsible purchasing

EDF's socially responsible subcontracting agreement signed in October 2006 is one expression of the Group's CSR agreement, and has been renewed indefinitely, highlighting the intent to maintain industrial and service collaboration in the long term. This approach enables service providers to reinforce their activities and extend their capacity for sustainable development, rather than merely signing short-term or one-off contracts.

For subcontractors and their employees this agreement is a guarantee that their work for EDF will take place in optimum employment, qualification, working and health and safety conditions, and in full knowledge of the risks inherent to the activities exercised. The agreement's monitoring committee was set up in 2007. It holds three meetings a year, attended by signatories and representatives of EDF's various businesses, to examine progress on the action taken under the agreement.

Several types of action have been implemented across all EDF's business lines, for example:

- improving reception and working conditions for subcontractors on the nuclear and fossil-fired generation sites;
- concerted action with outsourcers in the nuclear business, to increase the sector's appeal and develop appropriate training;
- gaining the social responsibility label for the "integrated customer service relations" category, under the new and substantially more demanding label system;
- a sustainable development charter between EDF and its suppliers. Environmental, social and corporate criteria are also incorporated into purchasing strategies (assessment of supplier skills and feedback),

starting from the initial preparation of specifications developed in close collaboration with the business activities requiring the outsourcers' services. The charter is integrated into the general terms and conditions and must be signed by all suppliers doing business with EDF. It sets out reciprocal commitments including:

- conduction of "sustainable development/corporate social responsibility" audits at the premises of suppliers and service providers to ensure these commitments are respected;
- integration of social responsibility criteria in forming the panel of suppliers and collecting feedback after completion of services;
- inclusion of modules on socially responsible subcontracting in training for purchasers, sponsors and actors in the purchasing process.

In 2012 as in 2011, a programme of 57 sustainable development audits was executed at EDF suppliers established all over the world, based on the standards contained in SA 8000 and ISO 14001 and a criticality analysis. Detailed analysis of the audits conducted in 2011 shows that 93% of audits reported a rating of "satisfactory" or "acceptable with comments".

The 2012 audits are currently under analysis.

2.3.3.4 Consumer health and safety

In **France**, EDF offers residential *Bleu Ciel* brand customers an electricity safety survey service proposed in partnership with the Consuel[1] (electricity users' safety inspectors). This service is designed to enhance the safety of interior electricity installations: a Consuel inspector can come to customers' homes to look at the key points of their electricity fittings in all accessible rooms, checking that they meet minimum safety requirements under the UTE XP C 16-600 "State of electricity fittings in residential property" standard. A report of any problems noted and the associated risks is remitted to the customer, along with general advice on remedial action which should ideally be carried out by a professional electrician. 1,776 electricity safety surveys were sold in 2012.

2.3.4 Reporting

The commitment of transparency to stakeholders is put into practice through reporting action and non-financial ratings. EDF publishes an annual sustainable development report on its website analysing the environmental, societal and social impacts of Group companies' industrial and commercial businesses.

Non-financial reporting

This reporting uses the non-financial indicators defined in the Global Reporting Initiative. It complies with France's NRE law and article 225 of the "Grenelle 2" law (implementing decree of 24 April 2012) and is consistent with the international commitments of the Global Compact to which the EDF group was one of the earliest signatories.

The form and content of the Group's non-financial reporting are constantly reviewed for improvement: reinforcing reporting processes for qualitative information; publishing a schema mapping relations between Group companies and their stakeholders; publishing supplier audits; comparing EDF's performance with others in the sector; taking on board stakeholder views (safety authorities, service providers, customers); simplifying access to information for internet users; including educational graphics (illustrating the environmental, societal and social issues related to Group activities); and publishing assessments by non-financial ratings agencies.

The Group has also begun a progressive process to have the quality of these non-financial indicators verified by the Statutory Auditors.

For 2011, the Statutory Auditors issued a report expressing "reasonable assurance" on the "CO_2 emissions (for electricity and heat generation) and "total workforce at year-end" indicators and "moderate assurance" on a selection of environmental and social indicators.

The EDF group is aiming to achieve the same mixed assurance results for 2012.

The sustainable development information published by the Group is based on evaluations by ratings agencies or non-financial analyst departments acting on behalf of investors.

A summary of environmental and social indicators is available in appendix 1.

Accreditations

In March 2012, EDF was admitted to the FTSE4Good index (see 1.2.2.3.1).

Since 2005, EDF has been included in the ASPI index, an "ethical" index comprising 120 firms assessed on the basis of their sustainable development performance by the French CSR rating agency Vigeo. In 2012 EDF was also a member of the Vigeo France 20, Vigeo Europe 120 and Video World 120 indexes. It was given an overall score of 55 out of 100 in 2012.

EDF is also participating in the Carbon Disclosure Project (CDP).

In 2012, 81% (405) of Global 500 companies answered the CDP questionnaire; in France, 97% of CAC40 companies responded, showing the significant commitment by the largest French firms to transparency and reducing CO_2 emissions.

EDF's transparency score was 87 in 2012 (+25 points compared to 2011) and its performance was graded B.

The companies of the EDF group prepare their non-financial reporting in the form of an annual sustainable development report (Edison in Italy, ERDF, Électricité de Strasbourg), by including sustainable development issues in their annual report (UTE Norte Fluminense in Brazil), or by publishing commitments and indicators on their website (EDF Energy in the United Kingdom, CENG in the United States).

2.4 Social information

2.4.1 The corporate social responsibility policy

Background and objectives

EDF has clearly expressed its human resources ambition in a dual social/economic project, reaffirming its Human resources strategy in three major priorities shared by all of the Group's business lines and companies:

- to develop skills and stimulate social mobility;
- to make recognition of each individual's importance, quality of life in the workplace and constant concern for health and safety drivers of a general commitment to sustainable performance;
- to introduce greater diversity and strengthen the Group's shared culture, particularly at management and expert level.

These priorities lie at the heart of the social dialogue that continued in 2012: 8 agreements were signed by EDF, on its own behalf or for the Group.

1. *The CONSUEL electricity users' safety committee* (Comité national pour la Sécurité des usagers de l'électricité) *is a public interest body in France that certifies the conformity of electric fittings in new or entirely-renovated homes, after inspection where necessary.*

Implementation of the Corporate Social Responsibility (CSR) Agreement

The EDF group's CSR agreement signed in 2005 was renewed in January 2009 for a 4-year period. This second agreement strengthens the Group's commitments, especially regarding subcontracting, the battle against climate change, and biodiversity. In 2011, the agreement monitoring committee elected a new secretary and new officers. When the review took place, it was also decided to focus specifically on one of the agreement's 20 articles each year for more emphatic communication throughout the year, and a more in-depth assessment at the following review.

EDF's social responsibility label was renewed in 2012 for management of its customer relations centres, incorporating actions in fields as varied as human resource management, social dialogue, societal commitments, sales practices, respect of the environment and governance methods. This brings it closer to the ISO 26000 guidelines on corporate social responsibility.

Respect of human rights

The current measures to ensure that human rights are respected appear to be sufficient in most EDF group companies. As well as the usual channels (management, HR, employee representatives), most companies have alert systems available to employees in the event of problems (ethics delegates, ombudsman, ethics committee, toll-free numbers, etc.).

At Électricité de Strasbourg (ES) for example, Group companies' internal regulations have contained a "Charter for joint action against harassment and violence at work" appendix since 2011. This charter covers the risks for anyone breaching the relevant laws but also defined the mediation procedure introduced in the ES group for cases of unacceptable behaviour.

A new Group charter of ethics was defined in 2012, and is currently being rolled out to all Group company employees in all locations and business lines.

Certain companies also took further measures in 2012. Edison, for example, has drawn up a new human rights assessment and control procedure applicable across all the company's sites. EDF Energy reinforced its code of ethics in 2012, especially on themes associated with action against discrimination, harassment and employee health.

Social responsibility policy towards suppliers and subcontractors

EDF's subcontracting agreement covers three major areas:

- first of all, particularly in view of the industrial stakes and the characteristics of its generation facilities, EDF wants to give its subcontractors good visibility in the medium term, and work with its suppliers as partners;
- EDF also wishes to take its subcontracting practices forward by capitalising on operational experiences and transferring best practices between business lines;
- finally, EDF confirms its commitment to development of socially responsible subcontracting (SRS) by signing or extending SRS agreements with unions.

The major subcontracting issues at EDF SA in 2012 concerned both industrial and sales activities.

Workforce numbers on the Flamanville 3 site reached their peak in 2011, and the number of jobs for the civil engineering work began to drop significantly in 2012. The workforce was adjusted during the year, mostly through departure of employees seconded to the site and action plans that are part of the commitment to develop employment and skills, providing support for local employees and offering further career solutions (including funding 75 training courses).

The Flamanville workforce was stable for most of 2012 at 3,000, and stood at around 2,650 subcontractors' employees in the final quarter of the year. Since the unit attached to the local employment office was opened in late 2007, 2,980 job offers have been posted and 95% of posts were filled.

At December 31, 2012, approximately 92,000 hours of training had been funded over the year for local jobseekers to give them access to jobs created by site subcontractors, mostly in the electro-mechanical field.

The activities subcontracted for maintenance of the existing generation fleet mainly require highly specialised or rare skills that only specialist companies working for other industrial customers are in a position to develop and maintain on a permanent basis.

The highly seasonal pattern of outages in generation facilities leads to peaks that must be absorbed, and this too results in a certain amount of subcontracting.

EDF also uses subcontractors when it needs specialised labour.

Subcontracting thus corresponds to an industrial policy intended to guarantee the best performance in all areas at all times, as regards both skills and organisation.

For nuclear generation facilities currently in operation, after submission in September 2011 of the additional safety assessments following the Fukushima accident, 2012 was marked by the Strategic Nuclear Committee (CSFN[1])'s "social specifications" applicable to services and work carried out at a Basic Nuclear Facility in France. These social specifications are the same for all nuclear operators and will be included in EDF's calls for tender from early 2013. From 1 July 2012, EDF also limited the number of subcontracting levels for nuclear maintenance activities: each contractholder is now only authorised for two levels of subcontracting, included for contracts already in execution.

Customer relations require subcontractors too, notably to cope with the extended business hours offered to customers and changes in workload. Priority is given to complex work or tasks that are less strategic for the customer. Subcontracting is also used to absorb the additional workload generated when major changes are introduced, for instance new IT systems.

Several different operational topics were explored or put into action in 2012:

- EDF SA's Sales division gained the social responsibility label as commissioner of outsourced telephone services. The SRS agreement was signed at ERDF in 2011;
- under the sustainable development charter between EDF and its suppliers introduced in 2007, the Group's Purchasing Division continued its sustainable development/social responsibility audits of suppliers, based on the standards contained in SA 8000 and ISO 14001 (57 audits took place in 2012);
- Edison joined the "responsible subcontracting" project with 10 other companies to work on a self-diagnosis tool for subcontractors based on Global Compact principles;
- EDF Energy also asks all its suppliers to fill in an assessment questionnaire regarding compliance with the Global Compact principles.

2.4.2 HR ambition: priorities

2.4.2.1 Developing skills

Jobs and skills

EDF is facing new challenges today:

- its businesses are evolving along with technological, economic, and environmental stakes in the energy sector, and the group's ambitions for development in France and internationally;
- human resource and skills requirements have also intensified with the resumption of industrial investments and expansion in nuclear engineering activities, particularly the relaunch of nuclear operations;
- more than 16% of the workforce at EDF and ERDF could retire in France between 2013 and 2016, many of them from the maintenance and operative workforce for generation, engineering and distribution.

Recruitment and mobility in the Group are essential drivers for skill renewal and providing support for the Group's development projects in France and internationally.

1. CSFN: *Comité stratégique de filière nucléaire,* in French.

The job website edfjoinus.com began to include EDF Energy offers in 2011, EDF Luminus offers in 2012 and will soon be extended to include Edison offers. EDF and ERDF took on more than 6,500 new employees in 2012. All the Group's technical business lines hired new staff, chiefly in electricity generation and distribution, but also in sales and R&D. Proportions were comparable for each of the three employee categories (management, supervisory and operative). Most of the new employees are newly-qualified, but EDF also recruits more experienced profiles.

New arrivals greatly outnumbered retirements in 2012.

Developing skills in sufficient numbers and quality after the Fukushima accident was included in the medium-term plan for 2011-2014 as a major area for attention. 2012 saw a significant increase in the resources of the Nuclear generation division and Nuclear engineering division, and this is due to continue from 2013 to 2015. These two divisions have stepped up the pace of recruitment (2,055 new staff hired, 1,570 for generation and 485 for engineering) and growth is forecast for 2013.

Detailed measures were taken in 2012 (logistics, support site designation) to set up the FARN task force. Ultimately this should lead to an increase of 400 employees as crisis teams are enlarged.

A final essential question, already incorporated into the nuclear skill renewal model, concerns the creation and management of EDF's own skill transfer centres where experienced staff can hand on their knowledge to the younger generation (involving close to 3,000 people in the Nuclear generation division between 2012 and 2014). This is a key component of this action programme, at a time when a large wave of retirements is anticipated and transmission of skills has become very important.

The Nuclear generation division pays particular attention to enhancing the skills of all new arrivals. To this end, it has reviewed and industrialised employee professionalisation arrangements for the 12 major skill areas identified. It has also developed new tools (e.g. echecing, WilkipeDIN) to facilitate transmission of knowledge through employee communities.

An experimental system for forward-looking management of jobs and skills (GPEC) was constructed in 2012 to build up a process methodology for EDF SA's business lines, elaborate a GPEC policy and prepare to apply it in all business lines. This system takes the form of projects, in association with pilot entities.

The methodological tools constructed include:

- a glossary;
- standard processes (activities spread over time so as to be compatible with the management cycle);
- a standard GPEC report format (guide to support execution of the system and formal reporting of results);
- methodological notes (workforce planning, skill mapping, projections of personnel expenses, etc).

Regarding mobility, EDF and ERDF have introduced systems to encourage career planning for employees. In early 2011 an intranet system went online to make information on career developments more easily accessible. Employees are directed to useful information from the EDF intranet, the business line sites or the ERDF website. A community of career path advisors has been set up to complement the website.

Implementation of an international mobility policy is a vector for locating and supplying the skills necessary for projects taking place in some thirty countries. An extranet accessible to all of the Group's employees exists specifically for international information: employees interested in working in other countries can register on the system and recruiters can use it to find candidates to join the skill bank formed in each business line.

Training

The Group has always devoted a significant budget to employee training. Group-wide, EDF spent more than 7.3% of its total payroll on training. 82% of employees received training in 2012, equivalent to 48 hours per year per employee.

At EDF, the rate of access to training and the volume of training per employee is also high: 85% of employees followed at least one training course in 2012, with an average duration of 66 hours (per employee per year).

The Group's managers in France benefit from this reinforced focus on training through the courses offered by the *Université Groupe du Management* (UGM). Three courses exist to support them as their responsibilities increase: 741 managers attended these courses in 2011 and 1,294 in 2012. The UGM held 40 courses comprising 87 modules during the year.

Also, the Group's managers in France are now offered training support not only when they take up their post, but also throughout the time they occupy their functions. 1,800 managers followed at least one "in-post manager's course" under this new programme.

More than 11,000 managers both in and outside France have access to a distance training platform, allowing them to follow online e-learning modules in the basics of management: the annual interview, delegation, employee development, and time management. In 2012 this platform was made available in Polish for Polish managers and English for Hungarian and Slovakian managers. Access will be extended to Chinese managers in 2013, and then to Belgian, Italian and British managers as appropriate for companies in those countries.

The e-learning platform registered 25,604 connections between its launch and December 31, 2012. 6,548 managers at all levels logged in at least once to ecampusmanagers and 2,744 hours of distance training were given.

Finally, the UGM pursued its internationalisation in 2012, bringing in a new introductory course to discover the Group and its issues intended for managers, high performers and new arrivals in the Chinese division, and a managerial training session for managers in Belgium and Poland.

In France, the "Training Challenge" (*Défi Formation*) agreement signed on 10 September 2010 by all unions representing EDF SA, ERDF, and RTE employees breathed new life into the Group's training policy: boosting social mobility (through restimulation of training leading to promotions, and work-study programmes) and creating 13 business line Academies, including for cross-functional business areas, all of which were awarded quality labels in 2011; this was confirmed for six of them in 2012 (nuclear production, nuclear engineering, fossil-fired power, hydropower, distribution, legal affairs). A network of training sites (35 in all) exists in France including a Group Campus open to all divisions and subsidiaries, and business line campuses for electricity generation and distribution.

This approach is gradually being extended to Group companies worldwide, with:

- continuing internationalisation of business line Academies with testing of new international training modules (HR, finance, communication, legal affairs, purchasing) and consolidation of partnerships in generation business line academies: professionalisation agreement with EDF Energy's Nuclear New Build branch, measures taken by EDF's nuclear engineering divisions to facilitate personnel intermobility;
- a new Campus planned for the Bridgewater site in the United Kingdom (decision made in 2011);
- the "People Development Programme" validated by the Group's Management Committee in September 2011, intended to implement 6 commitments to employees in all Group companies in the world from 2012. These commitments concern:
  - the annual interview, which should cover both performance and career development;
  - support from a HR contact at key stages in the employee's career;
  - access to appropriate training to gain qualifications for current and future posts;
  - visibility of job and mobility opportunities at company/country level and Group/world level;
  - information on changes in the employee's business line;
  - transfer of skills though work-study schemes and placements.

Most companies carry out annual interviews to assess employee performance. Specific e-learning modules to prepare for this annual milestone have been developed in France for managers, and in some cases for more junior employees. The annual interview guides have been enhanced by addition of a development/qualifications section and a career planning section (currently being rolled out).

For training, companies have begun to take steps for systematic identification of employees who have not had any training in at least three years, and take corrective action where relevant.

Work-study schemes are the best vector for training, qualifications and employment for young people and others finding it difficult to enter the world of work, and a key element in the identity of EDF. In the autumn of 2012, more than 3,600 work-study trainees from school-leaving to postgraduate level joined EDF and ERDF on apprenticeship or training contracts leading to all types of qualifications and professional titles. This brought the number of such employees close to 5,700 at 31 December 2011, more than 5% of the combined EDF and ERDF workforce.

Students trained by the Group on work-study schemes are given a key place in recruitment: in 2012, these candidates accounted for 9.5% of the people hired for management jobs and 24.9% of people hired for supervisory and operative jobs at EDF and ERDF.

More than 4,000 mentors provide guidance and support for these trainee employees. Work-study schemes also build on quality partnerships with several training bodies. At the initiative of EDF, ERDF and RTE, a new apprentice training centre for careers in the energy sector was opened in the Paris region in September 2011. A total of 6,717 work-study trainees were hired by the Group.

Remuneration

In order to attract, encourage and retain the talents that will enable EDF to rise to the industrial and commercial challenges it faces, EDF is developing a global remuneration policy in line with the best practices observed in comparable sectors.

This global compensation policy covers:

- recognition of the level of responsibility and the results achieved through the wage policy;
- recognition of collective performance through profit-sharing;
- employee savings plans and a company contribution to these savings;
- employee shareholding;
- social security coverage and employee benefits.

Since 2011, all EDF's employees in the Operatives-Technicians-Supervisors category have benefited from individual performance-related pay in the same way as managerial employees, based on individual and collective results.

For EDF and ERDF, the profit share agreements cover three years. Under these agreements the amounts payable is determined according to achievement of national objectives reflecting different aspects of the corporate performance (economic, business line, social and environmental). EDF's agreement for the period 2011-2013 includes five national performance criteria (Group EBITDA, electricity generation, customer satisfaction, proportion of trained employees, and percentage of waste reprocessed).

Most EDF group employees are eligible for performance-related remuneration.

Starting salary policy

At 1 January 2012, the statutory starting salaries for EDF employees were as follows (gross amount, paid in 13 months, 25% residence weighting - no previous experience):

- annual salary for people holding a CAP/BEP: €20,296 (€19,153 for a person with no qualifications);
- annual salary for people with the Baccalauréat: €21,111;
- annual salary for people with a qualification involving 2 years studies after the Baccalauréat (BTS): €24,791;
- annual salary for people with managerial status: between €34,755 and €42,204.

The starting salary offered by EDF for the least-qualified staff was thus 19% higher than France's national minimum wage, which was €17,708 gross (12 months) at 1 January 2012.

Since 2008, EDF SA has offered each of its employees a full individual review of his/her annual pay and its components. An information booklet on employee savings has also been distributed to all employees of EDF SA and ERDF.

2.4.2.2 Workplace health policy

Health and safety

The EDF group operates in a high-technology sector where workplace risks are also high, and the health and safety of its employees and contractors are a key concern for the company.

EDF's health and safety policy, signed by the CEO in March 2009, takes account of changes in the work environment, new forms of jobs and longer working lives, all factors that brought out new concerns requiring policy reorientation. The policy results from cross-disciplinary dialogue between the actors concerned (management, experts, doctors, employee representatives). It is underpinned by respect for the individual, a value it places at the core of organisations.

In application of the collective agreement on social dialogue for health and safety at work signed in November 2010, eight doctors were designated by their peers to participate in the National Group for Health at Work, which met four times in 2012. This multidisciplinary group set up four working parties (WPs) devoted to the reform of occupational medicine and its impact on the organisation of workplace health and safety (WP 1), Service providers' health (WP 2), Addictive practices (WP 3) and the Link between health and longer working lives (WP 4). The work done by these groups will be translated into recommendations for the operational divisions.

Under the terms of the agreement, meetings for all CHSCT (health, safety and working conditions commission) secretaries were held in February and December 2012. These meetings facilitate sharing of experiences in running CHSCTs, expression of needs for training, legal aspects and topics of current relevance such as psychosocial risks in 2012. After an installation phase, these meetings will now be held annually.

Social dialogue in Group companies on health and safety at work is governed by each country's own regulations.

French laws emphasise the need for a specialist representative body, the CHCST, which controls and analyses information and proposals for action. The Divisions of the Group's French companies refer to this body to present occupational risk assessment documents and the annual reports by doctors from the occupational health system. However, social dialogue in this field also takes place through other bodies.

November 2011 saw the Central Works Council's first meeting devoted entirely to the subject of health and safety, putting the company's multidisciplinary approach to health issues into practical application. This action continued in 2012. At Group level, all safety measures are presented annually to the Health and Safety Commission of the European Works Council.

Industrial accidents

Action has been taken to reinforce accident prevention through a focus on the core risks of the company's businesses.

Regarding industrial accidents, EDF has undertaken wide-scale prevention and training efforts for more than ten years, achieving a very significant reduction in the rate of industrial accidents causing sick leave. The Group has achieved regular improvement in the frequency rate (number of industrial accidents causing sick leave of more than one day during the current year, per million hours worked): 3.9 in 2011, 4.5 in 2010 and 2009. The 2012 rate is 3.8, confirming this trend.

EDF's severity rate (number of calendar days' sick leave during the year for work-related accidents, including accidents arising in previous years, per thousand hours worked) is 0.15 for 2012 (0.14 for 2011 and 0.16 for 2010). For the Group as a whole, the rate is 0.16 for 2012.

In response to an observed rise in 2010 and 2011 in the number of fatal falls in the Group, in 2011 EDF introduced a system to share information on the causes of significant events in the Group. It is currenly being generalised and should foster progress in this area, especially for control of core business risks such as falls from heights, electric risks and road risks.

The lower number of fatalities related to core business risks (1 death due to these risks in 2012 compared to 3 in 2011) is masked by the number of deaths from other causes (collapses, road accidents between home and work) which increased. A total of 14 Group employees dies in 2012, compared to 13 in 2011.

Industrial illness

EDF's 2011 survey of employment and working conditions reports the following information on industrial illnesses for 2011:

	2011	2010	2009
Number of cases of industrial illness declared to the Social Security during the year	11	12	12

In 2011, 54 employees were concerned; in 2010, 53 employees were concerned.

The declared illnesses were:

- silica-related (pneumoconiosis);
- asbestos-related (pleurisy, pleural plaques);
- asbestos-related (primary lung cancer);
- noise-related lesions (deafness);
- posture and movement-related (shoulder problems);
- posture and movement-related (tendinitis, carpal tunnel);
- problems caused by ionising radiation.

These social security statistics are considered confirmed after three years.

Occupational dosimetry (radioprotection)

Mobilisation of on-site actors has achieved ongoing improvement in the protection of personnel against ionising radiation.

In France, the average annual collective dose of all workers, employees of both EDF and outside companies working in the power plants, was halved in less than 10 years. In 2012, the average collective dose was 0.67 mansieverts (mSv) per reactor, lower than in 2011 (0.71 mSv per reactor, comparable to the average values recorded by operators of PWRs. EDF is actively continuing the ALARA (As Low As Reasonably Achievable) approach to control the collective dose, in anticipation of major refits and the resulting volumes of work.

In the United Kingdom, in 2012 the average collective dose was 0.037 mSv for the PWR and 0.063 mSv for reactor for the AGRs.

The EDF Energy sites are achieving ongoing performance improvement regarding radioprotection and exposure to radiation, principally through optimised governance of maintenance and repair work.

EDF is continuing its efforts to bring individual doses from exposure to radiation below the regulatory limit of 20 mSv. In France in 2012, no-one employed by EDF or subcontractors registered an individual dose above 16 mSv over a rolling 12-month period.

Given the achievements so far, efforts in future years will focus priority on plants with the least favourable dosimetry results. Purification of circuits will be a particularly important measure.

The constant improvement in radioprotection results involves raising the quality of radioprotection culture to the same level as the general safety culture.

In the United Kingdom, no individual dose exceeded the 10 mSv over the calendar year 2012. The highest dose recorded was 8.2 mSv.

2.4.2.3 Quality of life in the workplace

Quality of life in the workplace results from activation of several levers relating to work organisation, workplace relations, career development, the working environment, and the work-life balance. Promoting diversity and preventing discrimination also help to create a good environment for quality work.

In a move to take consideration of all these levers to a new level in the Group, in 2007 EDF set up a National Observatory of quality of life in the workplace, reinforced its ethical management and simplified its procedures to favour people-focused management.

The Observatory provides a setting for dialogue between doctors, managers, social partners and external experts. It monitors working conditions, commissions studies and issues recommendations.

In 2008, it recommended introducing an EVREST (Changes and Relations in Heath at Work) plan at EDF, which provide the company with crossed health/work indicators. This plan was implemented in 2009 by occupational doctors on a voluntary basis. In the IEG (gas and electricity) sector, by 107 doctors had registered and 87 of them had filled in 9,000 questionnaires by the end of 2012 (up from 4,808 at the end of 2011). The results for the period 2011-2012 were reported at the Observatory's meeting in January 2013.

Since it was first formed, the Observatory has issued other recommendations to promote a good work-life balance for its employees and intergenerational cooperation at work. These recommendations were sent to management, and an initial assessment of their application was made in 2011.

In 2012 and 2011, based on a presentation by the French National Agency for the Improvement of Working Conditions (ANACT – *Agence nationale pour l'amélioration des conditions de travail*) on the challenges of the longer working life, the Observatory drew up a recommendation on promotion of working environments that are favourable to career development for all ages. It is currently reflecting on how to make changes in the company.

Finally, the groupware space Innovation for better enables managers and HR staff to promote and share good practices, receive expert advice and build an 800-strong community on the theme.

At Group level, the priority assigned to improving health and quality of life in the workplace has resulted in sharing experiences, comparing data and observing practices in the business lines, and by invitation in the other companies. Exchanges of this kind are organised regularly in the health and safety community through "learning expeditions" of the kind that take place every year in 2011 in France, the United Kingdom and Poland.

Psychosocial risks

Each entity has designated an ethics correspondent and a national toll-free telephone number is available for all employees in case of serious difficulties at work.

Since 2008, the support of specialist doctors has been available to management 24 hours a day, 7 days a week in case of a traumatic event in their unit, to advise them and organise all necessary assistance for the relatives of the victims and the work teams.

The collective agreement on "Preventing psychosocial risks and improving quality of working life" signed at EDF in November 2010 provides for various multi-disciplinary dialogue projects closely focusing on situations at work and the training of participants.

The principal measures taken focused on:

- widespread introduction of multidisciplinary groups and joint training of the participants in these groups;
- listing psychosocial risks in the single document required by the regulations (plus publication of a guide on how to take risks into consideration in work evaluation, and their transcription);
- the gradual integration of workplace life quality aspects into impact studies before any organisational changes are made.

The mid-term assessment of this agreement, undertaken jointly by the signatories, began in the second half of 2012.

EDF and ERDF have also developed multi-disciplinary analysis groups made up of different actors (managers, doctors, social workers, employee representatives, internal consultants), to discuss and present proposals for action to promote quality of life at work and prevent psychosocial risks. More than 50 such groups currently exist at the level of the parent company EDF. Their initial results are satisfactory: by renewing the conditions of social dialogue and broadening discussions to include more than social partners alone, they can address individual and collective groups, sometimes playing a role in change. This improves the connection between health matters and questions of economic performance.

Outside France, social dialogue results either from direct application of the law or an agreement between social partners.

In Hungary (EDF Demasz), a joint safety committee is responsible by law for social dialogue, and meets regularly to discuss the subject, similar to Italy. In 2012, BE ZRt and EDF Energy signed charters setting out the terms of social dialogue on health and safety. At Edison, a specific agreement was signed in April 2012 on training in health and safety for different target audiences (central functions, technical business lines, mobile workers, management). A new health and safety policy was also signed at SSE.

2.4.2.4 Diversity

The EDF group believes in promoting diversity as a performance driver, in order to:

- build up better perception of the diversity of customers, to meet their needs better;
- provide a better reflection of the society in which the group operates;
- enable men and women to express their talents to the best of their ability.

To achieve these aims, EDF has made several commitments to diversity, beginning in 2005 with its Group CSR agreement including several articles devoted to anti-discrimination, respect of diversity and promotion of equal opportunities. Along with the Charter of Ethics, this is the principal framework of reference for Group companies. The level and definition of more specific local-level commitments vary according to the laws in force. EDF Demasz, for example, has had an equal opportunities action plan since 2010, while in the French companies action is structured around agreements on gender equality, disability and age diversity. In November 2012 EDF Energy was awarded the Diversity Works for London Gold Standard for its action in favour of equality and diversity.

The Group signed a Diversity charter in 2006 and undertakes many actions including:

- organisation of an annual "Diversity Day" across the Group since 2008, comprising events to promote diversity, raise awareness of stereotypes and thus help to prevent all kinds of discrimination. These initiatives reached 40,000 Group employees in 2012. Several companies took this chance in 2012 to emphasise gender equality and promote a good gender mix;
- in France, EDF's commitments on diversity have resulted in creation of a training programme for managers, HR managers and employees on the images and stereotypes linked to diversity. More than 7,000 staff have been trained in France since 2007. Training modules have been added to the professional management training courses, and a one-day course for Group managers was introduced in 2012 and has so far been held four times. 400 EDF Energy managers also underwent training.

2012 saw the official launch of the Group's international diversity community, set up to facilitate implementation of action to promote diversity and sharing of good practices.

The partnership agreement signed in late 2011 with the association *L'Autre Cercle*, which campaigns against discrimination based on sexual orientation and homophobia at work, conducted and reported its initial diagnosis of EDF. A booklet to raise awareness of homophobia and related discriminations was widely distributed at EDF and ERDF on 17 May 2012, the international day against homophobia.

Support to employee network initiatives is another channel for promoting diversity. EDF Energy has a number of networks that are regularly showcased in its internal communications: the ethnic minorities, women's, disabled, and gay and lesbian networks. They are particularly active and in 2012 increased opportunities for consciousness-raising, with some of the networks also developing a mentoring system.

In France, EDF has provided financial and logistical support since 2012 to Energay, a LGBT association for EDF and IEG (electricity and gas) companies, and the women's network *Interp'Elles*, which opened a branch in Asia in 2012.

Gender equality

Equality in the workplace is a basic lever of the Group's diversity policy.

EDF and ERDF renewed their agreements for gender equality at work, signed respectively on 8 February 2012 and 30 November 2012 by all union organisations.

These agreements extend and amplify previous commitments, now based on targets expressed in figures. The signatories undertake commitments on six themes: long-term change in mentalities, promotion of a gender mix in the workplace and in recruitment, equal career opportunities, equal training opportunities, consideration of working hours and conditions, and the work/life balance.

Pay equality for men and women has been broadly achieved in both companies as regards principal salary and performance-related salary. EDF still holds the *Égalité professionnelle* label, first awarded in 2006 and renewed in 2008 and 2011.

EDF Énergies Nouvelles has drawn up an action plan to promote gender equality, maintain equal pay between men and women for equal skills, and pay particular attention to working conditions. Edison monitors indicators on the gender mix and the wage gap between men and women holding equivalent responsibilities, which are published in its sustainable development report.

The Group also takes action ahead of recruitment to encourage a good gender mix. In 2012, EDF once again organised the Fem Energia Prize in partnership with the WIN (Women in Nuclear) association, which promotes and awards the careers of young female students or women working in the nuclear industry. EDF is also pursuing its partnership agreement with the *Elles Bougent* association, which works to encourage young female secondary school pupils and students to go into technical and scientific careers. Some fifty EDF "sponsors" volunteered to give occasional presentations at the meetings organised by *Elles Bougent*. EDF was honorary president of the association in 2012. EDF Energy, meanwhile, has targeted recruitment campaigns to attract more young women engineers and apprentices.

Managing age in the workforce

The Group is committed to helping employees aged 55 and over to stay in work, and improving working conditions for older employees. Particular aims include changing current perceptions of work for older employees, encouraging career advancement throughout the employee's working life using milestones in the second half of a career (mid-career interviews are being progressively introduced), making access to training easier for older employees and preparing employees better for the transition from work to retirement (progressive introduction of career-end interviews began in late 2011).

The number of employees aged 56 and over is increasing; they currently represent 9.5% of the workforce (9% in 2011), while employees aged 50 and over represent 32% of EDF's workforce (33% in 2011) and there are now more than 1,000 employees aged 60 and over (slightly more than 800 in 2011).

In response to the presence of several different generations in the company, an age management project has been instigated in the Group in France, to update apprenticeship and skill transfer methods (learning organisations), create the conditions to sustain motivation and commitment by each employee throughout their career, manage parameters that affect health in the short, medium and long term and develop services to support and assist employees. This project began in 2012 and will continue in 2013; among other consequences, it led to negotiation of an agreement on generational contracts that replace the senior employee action plan of December 2009.

Disabled employment

EDF and ERDF each signed a new 4-year agreement in 2009 for the integration of disabled people. 124 disabled employees were recruited in 2012 by EDF and 66 by ERDF. In addition, both companies are leading a voluntary effort to welcome young disabled people each year under work-study programmes (apprenticeship or professional contracts): EDF and ERDF took on 79 staff in this way in 2012.

Partnerships are being developed with associations such as *Tremplin, Arpejeh,* and *FEDEEH,* to provide support for disabled people from their time at school to finding a job, and also work in research and technological innovation to the benefit of disabled employees.

To provide the best possible conditions for all, EDF is training its customer services staff in reception of disabled customers, and continues to refit certain branches to ensure "accessibility for all". 49 branches have been redesigned (access for reduced-mobility users, audioguide terminals and specially-adapted documents for the visually-impaired also, a system is being tested to enable deaf and hearing-impaired customers to use a workstation equipped with a webcam, unaided). These moves were presented and praised at the Paris Police office's accessibility forum in September 2012. In January 2012, a responsible subcontracting agreement was signed by ERDF and social partners, aiming to increase ERDF's purchase volumes from the protected sector and organisations that employ a majority of disabled people by 20% within 3 years.

Group companies are also making efforts to facilitate recruitment of discabled employees and appropriate workstation adaptation (Edison, SSE, EDF Demasz, EDF Energy, EDF Polska). In 2012 Fenice signed an agreement on employment of disabled people, including commitments in terms of numbers hired. Électricité de Strasbourg won an award at the *Tour de France de la Diversité* for its active commitment in favour of the disabled under its 2010/2012 agreement.

Sport for the disabled is a strong lever for internal awareness-raising, and was given a particularly high profile in 2012 through EDF's sponsorship of the London Olympic Games and Paralympics. Disabled sportsmen and women are regularly invited to special events to meet employees and managers.

2.4.2.5 Social dialogue

Social dialogue with employee representatives and unions is a fundamental part of EDF's human resources ambition right across the Group. One of EDF's priorities is to uphold its long tradition of social dialogue and consultation, to serve the company's objectives and employee development.

In 2012, key developments were the introduction of broader consultation on corporate strategy, particularly through a special Works Council seminar and instigation of major negotiations on the themes of equality at work, forward-looking management of jobs and skills (GPEC) and age management. The following agreements had been signed by the end of November 2012:

- the collective agreement on gender equality at EDF for 2012-2014, signed on 8 February 2012 by the four representative unions (CFDT, CFE-CGC, CGT, CGT-FO); ERDF's agreement was signed on 30 November 2012;
- the framework agreement on principles governing the initiation and conduction of experiments at EDF, signed on 20 February 2012 by the CFDT and CFE-CGC unions;
- the agreement on configuration of the EDF group for renewal of the France Group Committee for 2012-2015, signed on 6 March 2012 by the CFDT, CGT and CGT-FO unions;
- the 2012 amendment to EDF's profit share agreement for 2011-2013, signed on 7 May 2012 by the CFDT, CFE-CGC and CGT-FO unions;
- the agreement on social measures applicable to the Island Energy Systems on the island dimension of its territories on 29 June 2012 signed by the CFDT, CFE-CGC and CGT-FO unions;
- the collective agreement concerning the Action for Employment fund *(Fonds Agir Pour l'Emploi)* in the EDF group signed on 16 November 2012 by the four representative unions.

A collective agreement on patents and additional remuneration for employees who make inventions was signed on 17 December 2012 by the CFDT, CGT and CGT-FO unions.

Further themes were covered in social dialogue in certain EDF business lines: experimenting with teleworking, change projects, relocation, and subcontracting.

A notably dynamic collective negotiation at ERDF renewed the collective agreements on workplace equality, disability and profit sharing and concluded three new agreements (additional pension scheme, socially responsible subcontracting and forward-looking management of jobs and skills). Finally, the plan to merge Enerest with Énergies Strasbourg (due to be finalised in 2013) and the employee share offer, on top of the current profit sharing agreement, were central focuses of social dialogue at Électricité de Strasbourg.

The main agreements for the employees of the IEG (electricity and gas industries) sector concern:

- total remuneration: 2012 was covered by a wage agreement signed on 24 November 2011 by the CFDT, CFE-CGC and CFTC unions, setting the procedures for general pay rise applicable to employees in the sector;
- meanwhile, after discussions it was decided to replace quarterly payment of IEG pensions by monthly payment from 1 April 2013, and in January 2013 to transfer management of all standard family benefits to the national organisation in charge of such benefits;
- in early 2012, the discussions begun in 2011 on application of the decree of 23 September 2011 on classification of active service or health-risk jobs in the special pension plan were completed, and the new measures were applied in 2012;
- in April 2012, an amendment to the agreement on in-service training was signed by the CFDT, CFE-CGC, CFTC and CGT-FO unions.

However, both attempts to renegotiate a protocol for electing the directors of EDF's social activities fund failed as no agreement could be reached between the unions.

Internationally, social dialogue mainly focused on:

- the first collective agreement signed in the China Division;
- restructuring and redundancy plans (Edison, Fenice, BE ZRt);
- corporate responsibility (BE ZRt);
- pay (BE ZRt, SSE);
- incorporation of changes in legislation (SSE);

- pensions and the Supporting Excellence Programme for better organisation of support functions (EDF Energy);
- signature of an agreement between the unions at EDF Poland and management on the social conditions of the merger between EDF Rybnik, EDF Krakow, EDF Polska Centrala, and EDF Polska CUW.

An agreement relating to the France Group Committee was signed on 1 September 2008 by all unions. To renew this committee, an agreement on the configuration of the EDF group was signed by three unions (CFDT, CGT, CGT-FO) on 6 March 2012. The committee has 28 elected members from the Group's main companies (EDF, ERDF, RTE, TIRU, Fahrenheit, etc) and is a place for discussions covering all of France. This Group Committee met four times in 2012.

The European Works Council, set up in 2001, now has 34 members and is kept informed of the Group's economic, financial and social strategies. At the end of the three-year period set by the agreement, in May 2011 the members of the Council elected a new secretary and the terms of office of more than half the ordinary members were renewed at the same time. The European Works Council met twice during 2012, this year including representatives of the Italian employees for the first time.

One significant event of 2012 was the launch of the Group's first worldwide internal opinion poll entitled "My EDF". This is a precious instrument for dialogue between management and employees, who were able to express their views and desires as regards the policies and resources applied in their company and the action necessary to move forward together. More than 82,000 Group employees have taken part in the poll.

2.4.3 Special pension system for the Electricity and Gas Industries (IEG) in France

The special IEG pension system was reformed in 2008 and 2010: the first reform was part of the reform for special pension systems, and the second resulted from the law of 9 November 2010 reforming general pension systems and French public sector pensions.

Following enactment of this law, the regulations for the special pension system were amended by decree 2011-290 of 18 March 2011 raising the pensionable age progressively by two years, including for early retirement. This will only come into force in 2017 in view of the timetable for implementation of the 2008 reform. As in the ordinary French public sector, special early retirement arrangements based on the number of children will be phased out, and the period of service required to qualify for early retirement in the "active work" (i.e. non-sedentary) category will also be increased progressively by two years.

Decree 2011-289 of 18 March 2011 reflects the consequences of this change, introducing a phased rise in the age at which the employer can terminate the work contract; from 2017, the maximum age will be progressively raised from 65 to 67.

The way arduous working conditions are taken into account is changing. The 2008 pension reform discontinued certain special advantages for employees hired on or after 1 January 2009. A sector-specific Agreement of 16 April 2010 set up a system attributing paid leave entitlements, to be taken after qualifying for retirement, to employees hired on or after 1 January 2009 who would no longer benefit from the advantages of "active work" status. Decree 2011-1175 of 23 September 2011 also stipulated that criteria and procedures for granting "active work" status be updated. The standards for classification of jobs as "active work" were defined in a decision published in France's *Official Journal* on 29 March 2012. The new method has been in force since 1 June 2012 (transitional measures apply for employees hired before 17 April 2010).

The wider possibilities of retirement at 60 introduced by the decree of 2 July 2012 will apply to IEG pensions from 2017.

2.4.4 Additional employee protection

Since 2008, IEG employees in French Group companies have benefited from additional social protection concerning:

- the additional invalidity benefit (sector-specific agreement of 24 April 2008), applicable since 1 July 2008;
- welfare provision: life insurance and education allowance (under the sector-specific agreement of 27 November 2008), applicable since 1 January 2009;
- the additional pension scheme (introduced by the sector-specific agreement of 21 February 2008 and a group agreement of 12 December 2008), plus company-specific measures applicable since 1 January 2009 (1 October 2010 for ERDF);
- additional healthcare coverage (sector-specific agreement of 4 June 2010), applicable since 1 January 2011.

These schemes are co-financed by the employer, and all employees are obliged to join.

To reflect the changes introduced by the law of 9 November 2010, an amendment to the Group agreement on supplementary pensions dated 10 October 2011 now allows employees of companies that are signatories of the agreement to make optional individual payments to their own supplementary pension account. The Group agreement applies to EDF SA, EDF PEI, Électricité de Strasbourg and Tiru.

EDF SA also signed an amendment to the company agreement on the time banking system on 10 October 2011, allowing employees to transfer their time banking rights to their individual supplementary pension account. The same change was made at EDF PEI, and Tiru signed an amendment for the same purpose pn 3 December 2011.

In February 2012, ERDF improved the supplementary pension scheme for its employees by introducing a collective agreement, an employee contribution and a higher employer contribution. ERDF now allows its employees to make optional individual payments to their own supplementary pension account either directly, or by transferring time banking rights that can be converted into a monetary value.

APPENDIX 1 - Summary of environmental and social indicators

ENVIRONMENTAL INDICATORS	Unit	2012	2011	2010 [1]	Scope [2] 2012	Scope [2] 2011	Scope [2] 2010	GRI ref [3]
Fuels and raw materials – Fuel consumption								
Nuclear reactor fuel	t	1,096	1,205	1,138	1	1	1	EN 1
Coal	Kt	24,277	21,024	20,211	2	2	2	EN 1
Heavy fuel oil	Kt	1,098	1,170	1,625	2	2	2	EN 1
Domestic fuel oil	Kt	317	402	448	2	2	2	EN 1
Natural gas	10^6 m^3	9,290	6,859	8,072	2	2	2	EN 1
Industrial gas	10^6 m^3	842	3,555	3,707	2	2	2	EN 1
Water – consumption of raw materials from sources outside the company								
Cooling water drawn	10^9 m^3	54.8	55.2	53.9	2	2	2	EN 8
Including fresh water	10^9 m^3	28.0	26.8	n.c.	2	2	n.c.	EN 8
Cooling water returned	10^9 m^3	54.2	54.6	53.3	2	2	2	EN 21
Including fresh water	10^9 m^3	27.5	26.3	n.c.	2	2	n.c.	EN 21
Air – Gas emissions								
Total CO_2 emissions (including installations not subject to quotas)	Mt	79.8	70.5	75.7	2	2	2	EN 16
SO_2 emissions	Kt	137.8	140.6	187.9	2	2	2	EN 20
NOx emissions	Kt	182.2	157.0	167.6	2	2	2	EN 20
Dusts	t	6,968	5,407	7,929	2	2	2	EN 20
CH_4 emissions	Kt eq. CO_2	40.5	32.2	41.6	2	2	2	EN 16
N_2O emissions	Kt eq. CO_2	329.8	254.7	287.9	2	2	2	EN 16
SF_6 emissions – EDF SA	Kt eq. CO_2	83.8	94.3	98.3	1	1	1	EN 16
SF_6 emissions – EDF SA + ERDF	Kt eq. CO_2	93.3	102.8	n.c.	1b	1b	n.c.	EN 16
SF_6 emissions – Group	Kt eq. CO_2	109.8	n.c.	n.c.	2	n.c.	n.c.	EN 16
Non-nuclear waste								
Dangerous waste [4]	t	64,598	60,956	40,679	2	2	1	EN 22
Non-dangerous waste [4]	t	321,789	302,251	198,422	2	2	1	EN 22
Non-nuclear industrial waste recycled or removed for recycling [4]	t	253,412	251,908	190,353	2	2	1	EN 22
Ash produced	Kt	3,816	3,617	3,581	2	2	2	EN 22
Energy								
Renewable energies: quantity of electricity and heat generated using renewable energy sources (other than hydro)	GWh	15,583	11,032	10,385	2	2	2	EN 6
Direct energy consumption by primary source								
Internal consumption, pumping electricity	TWh	6.7	6.9	6.6	1	1	1	EN 3
Internal consumption, electricity	TWh	22.4	22.8	22.6	1	1	1	EN 3
Management								
Environmental protection expenses Including provisions	€ million	3,465 2,465	2,800 1,765	2,579 1,712	1	1	1	EN 30
Environmental management (% of consolidated sales covered by ISO 14001 certification)	%	[98] [5]	79	n.c.	2	2	n.c.	

(1) Excluding EnBW, except for economic indicators.
(2) Scope 1: EDF. Scope 1b: EDF + ERDF. Scope 2: EDF group. n.c.: not communicated.
(3) GRI: Global Reporting Initiative.
(4) Extended to Group scope in 2011.
(5) Including companies not covered by the Group certificate.

ECONOMIC INDICATORS	Unit	2012	2011	2010 (1)	Scope (2) 2012	Scope (2) 2011	Scope (2) 2010	GRI ref (3)
Provisions for decommissioning and last cores	€ million	20,979	19,843	19,684	2	2	2	
Provisions for back-end nuclear fuel cycle	€ million	19,525	18,830	18,020	2	2	2	
Indemnities paid or payable following a court ruling in an environmental matter	€ thousand	6.9	-	8	1	1	1	

(1) Excluding EnBW, except for economic indicators.
(2) Scope 1: EDF. Scope 1b: EDF + ERDF. Scope 2: EDF group.
(3) GRI: Global Reporting Initiative.

NUCLEAR INDICATORS - EDF	Unit	2012	2011	2010	GRI ref
Radioactive emissions to water(1)					
Tritium	TBq/reac	n.c.	18.07	19.1	EN 21
Carbon 14	GBq/reac	n.c.	13.06	12.6	EN 21
Radioactive emissions to air(1)					
Carbon 14	TBq/reac	n.c.	0.17	0.17	EN 20
Tritium	TBq/reac	n.c.	0.65	0.55	EN 20
Nuclear waste					
Low and medium level short-life solid radioactive waste	m^3/TWh	20.7	15.6	12.4	EN 24
High and medium level long-life solid radioactive waste	m^3/TWh	0.88	0.87	0.88	EN 24
Transported spent nuclear fuel	t	1,075	1,199	1,140	EN 24

(1) Radioactive emissions to water and air concern the previous year (N-1) and are therefore reported for 2011 but not communicated (n.c.) for 2012.

NUCLEAR INDICATORS – EDF ENERGY	Unit	2012	2011	2010	GRI ref
Radioactive emissions to water					
Tritium – AGR (Advanced Gas-cooled Reactor)	TBq/reac	135.7	124.5	107.8	EN 21
Tritium – PWR (Pressurised Water Reactor)	TBq/reac	44	46	25	EN 21
Radioactive emissions to air					
Carbon 14 – AGR	TBq/reac	0.7	0.68	0.61	EN 20
Carbon 14 – PWR	TBq/reac	0.3	0.3	0.13	EN 20
Tritium – AGR	TBq/reac	0.68	0.8	0.92	EN 20
Tritium – PWR	TBq/reac	0.8	0.7	0.74	EN 20
Nuclear waste					
Uranium sent off site	t	216	210.7	131	EN 24
Low level radioactive waste sent off site	m^3	698	608	498	EN 24
Medium level radioactive waste generated	m^3	161	161	162	EN 24

NUCLEAR INDICATORS – CONSTELLATION ENERGY NUCLEAR GROUP	Unit	2012	2011	2010	GRI ref
Radioactive emissions to water					
Tritium	TBq/reac	12.91	12	11.11	EN 21
Radioactive emissions to air					
Carbon 14	TBq/reac	0.33	0.34	0.69	EN 20
Tritium	TBq/reac	1.38	1.40	1.41	EN 20
Fuels (1)					
Nuclear fuel delivered	t	46	48	34	EN 24
Nuclear waste (1)					
Low and medium level radioactive waste sent off site	m^3	2,419	1,287	735	EN 24

(1) Data is consolidated according to the percentage ownership in the subsidiary.

SOCIAL INDICATORS – EDF GROUP	Unit	2012**	2011*	2010*	Scope 2012-2010	GRI ref
Workforce numbers and breakdown at 31 dec 2012 (1)						
EDF + ERDF	number	107,333	103,954	96,571	1	LA 1
TOTAL EDF group	number	159,740	156,168	158,842	2	LA 1
Employees by age						
Employees under 25	%	8				
Employees aged 25-35	%	23				
Employees aged 36-45	%	25				
Employees aged 46-55	%	34				
Employees aged 56 and over	%	10				
Employees by geographical zone (based on head office location)						
France	number	129,328				
- Dalkia	number	15,964				
United Kingdom	number	16,178				
Italy	number	5,210				
Other European countries	number	7,503				
Other international	number	1,521				
Number of executives (as defined by French regulations)	number	40,355	37,786	39,231		LA 1
Percentage of women executives	%	25.0	23.9	22.7		LA 13
Number of non-executives	number	119,385	118,382	119,611		LA 13
Gender equality						
Male workforce	number	118,512	117,023	121,009		LA 13
Female workforce	number	41,228	39,145	37,833		LA 13
Male executives	number	30,286	28,753	30,306		LA 13
Female executives	number	10,069	9,033	8,925		LA 13

(1) Companies joining or leaving the scope in the year are included in "Other arrivals" and "Other departures".
** Including RTE.*
*** Excluding RTE and new definition of workforce, including people on special contracts under various measures, doctors and personnel seconded from external organisations. Scope 1: EDF + ERDF. Scope 2: EDF group.*

SOCIAL INDICATORS – EDF GROUP	Unit	2012**	2011*	2010*	Scope 2012-2010	GRI ref
Hiring / departures						
Recruitments	number	12,577	12,755	13,790		LA 2
Other arrivals (1)	number	7,499	5,849	3,105		LA 2
Retirements	number	4,185	4,200	4,708		LA 2
Resignations (2)	number	2,355	2,761	2,929		LA 2
Redundancies and dismissals	number	1,739	1,689	1,924		LA 2
Other departures (1)	number	9,304	9,398	10,457		LA 2
Remuneration						
Total gross remuneration	€ million	Cf MR note 10.1				
Part-time employees	number	14,690	15,296	17,719		LA 1
Absenteeism						
Average number of days' absence (illness + accident)	number	9.0				
Health and safety						
Fatal accidents	number	14	13	15		LA 7
Injury frequency rate		3.8	3.9	4.5		LA 7
Work-related accidents (causing leave of one day or more)	number	921	933	1,145		LA 7
Severity rate		0.16				

(1) Companies joining or leaving the scope in the year are included in "Other arrivals" and "Other departures".
(2) Terminated special contracts (including work-study contracts) are included in "Other departures" regardless of whether a further contract was signed. Departures during the period are included in "Other departures".
** Including RTE.*
*** Excluding RTE and new definition of workforce, including people on special contracts under various measures, doctors and personnel seconded from external organisations. Scope 1: EDF + ERDF. Scope 2: EDF group.*

SOCIAL INDICATORS – EDF GROUP	Unit	2012**	2011*	2010*	Scope 2012-2010	GRI ref
Management-employee relations						
Percentage of employees covered by collective bargaining agreements(1)	%	88	87	94		LA 4
Training						
Total hours of training	number	7,631,618				
Number of employees benefiting from training(2)	number	131,311	118,930	127,332		LA 10
Employment and integration of employees with disabilities						
Number of disabled employees(3)	number	4,519	4,601	3,078		LA 13

(1) Excluding Dalkia International in 2010.
(2) Excluding ESTAG in 2010 and 2011.
(3) Collected by declaration at EDF Energy. For reasons of confidentiality, CENG does not report this information in 2010, 2011 or 2012. The figure collected by Edison in 2011 and 2010 does not include the subsidiary Abu Qir, first consolidated during 2009.
** Including RTE.*
*** Excluding RTE and new definition of workforce, including people on special contracts under various measures, doctors and personnel seconded from external organisations. Scope 1: EDF + ERDF. Scope 2: EDF group.*

SOCIAL INDICATORS - EDF	Unit	2012	2011	GRI ref
Workforce numbers and breakdown at 31 December 2012				
Total EDF staff covered by collective bargaining agreement (at 31 Dec 2012)	number	64,838	63,002	LA 1
Other permanent EDF staff not covered by collective bargaining agreement	number	433	409	LA 1
Other non-permanent EDF staff not covered by collective bargaining agreement	number	3,851	3,773	LA 1
Total EDF SA staff not covered by collective bargaining agreement	number	4,284	4,182	LA 1
Total EDF SA workforce	number	69,122	67,184	LA 1
Number of executives (as defined by French regulations)	number	28,230	26,644	LA 1
Percentage of women executives	%	26.0	25.1	LA 13
Number of non-executives	number	40,892	40,540	LA 13
Technicians and supervisory staff	number	33,084	32,871	LA 13
Operatives	number	7,808	7,669	LA 13
Gender equality				
Male workforce	number	47,852	46,938	LA 13
Female workforce	number	21,270	20,246	LA 13
Male executives	number	20,884	19,944	LA 13
Female executives	number	7,346	6,700	LA 13
Hiring/departures				
Recruitments	number	4,452	4,021	LA 2
Integration & rehiring	number	261	251	LA 2
Other arrivals (1)	number	3,194	2,818	LA 2
Retirements	number	2,061	1,990	LA 2
Resignations	number	114	123	LA 2
Redundancies and dismissals	number	6	14	LA 2
Deaths	number	82	89	LA 2
Other departures (1)	number	3,709	3,285	LA 2
Overtime				
Number of hours of overtime	thousands	2,831	2,791	
Outside contractors				
Monthly average number of temporary staff (2)	number	(2012) NR (2011) 1,187	(2011) NR (2010) 1,087	LA 1
Working time				
Full-time employees	number	60,612	58,157	LA 1
Part-time employees	number	8,510	9,027	LA 1
Employees on contracts allowing overtime	number	6,882	6,808	LA 1
Absenteeism				
Absenteeism	%	3.8	3.9	LA 7
Hours of maternity or paternity leave/total working time	%	0.7	0.7	LA 7
Health and safety				
Number of industrial illness declared in the year to the French Social security (2)		(2012) NR (2011) 11		
Fatal accidents	number	6	8	LA 7
Injury frequency rate		3.4	3.7	LA 7
Severity rate		0.15	0.14	LA 7
Work-related accidents (causing leave of 1 day or more)	number	333	358	LA 7

(1) Not including arrivals and departures of seasonal staff on fixed-term contracts.
(2) 2012 figure unavailable at the reporting date.

SOCIAL INDICATORS - EDF	Unit	2012	2011	GRI ref
Wages/Social security contributions/Profit share				
Principal monthly salaries				
Executives	€	4,308	4,248	EC 1
Technicians and supervisory staff	€	2,612	2,581	EC 1
Operatives	€	1,877	1,874	EC 1
Personnel expenses	€ million	6,113	5,784	EC 1
Average profit share per employee	€	1,820	1,583	EC 1
Management-employee relations				
Number of collective bargaining agreements signed (France)	number	8	11	HR 5
Percentage of employees covered by collective bargaining agreements (1)	%	94	94	LA 4
Training				
Number of employees benefiting from training	number	58,899	55,905	LA 10
Employment and integration of employees with disabilities				
Number of disabled employees	number	1,842	1,698	LA 13
Number of disabled employees hired	number	124	94	LA 13
Charitable works				
Committee budgets (1% requirement)	€ million	196	198	

(1) EDF staff are not covered by a collective bargaining agreement as defined by law, but are covered by the IEG (electricity and gas sector) statutes.

APPENDIX 2 - Methodological information on the social and environmental indicators for 2012

Data consolidation

The quantitative social and environmental data in this report was collected via the EDF group's consolidation reporting software packages.

Social and environmental indicators are consolidated under the rules for accounting consolidation, and with reference to relevance criteria for human resources and environmental impact.

Companies fully consolidated for accounting purposes are also fully consolidated for production of the social and environmental indicators.

Companies proportionally consolidated for accounting purposes are also proportionally consolidated for production of the social and environmental indicators.

Companies accounted for under the equity method are not included in the preparation of social and environmental indicators.

In addition to these rules, the Group's scope of consolidation for social data only includes companies with a significant workforce (more than 50 employees) acquired more than 6 months ago.

For environmental information, the criteria applied are based on subsidiaries' industrial activities (generation, distribution and transmission) that are significant in terms of environmental impact. Only companies that have been included in the scope of consolidation for longer than one year and were still in the scope of consolidation at 31 December 2012 are taken into account.

There was a change in consolidation method for three international subsidiaries (Zielona Gora, Kogeneracja and Edison), from proportional consolidation to full consolidation over the full year 2012.

For HR information, two new subsidiaries with more than 50 employees (EDF Optimal Solutions and EDF Paliwa) are included in the Group's scope of reporting for the first time in 2012.

The scope of environmental reporting has been extended to include Fenice's Polish and Spanish subsidiaries.

Social indicators

The social indicators are prepared for this report on the basis of a glossary of definitions that has been updated in 2012.

New indicators are now published, in compliance with article R 225-102-1 of the French Commercial Code (*Grenelle 2* law). These new indictors are:

- distribution of the Group workforce by age group and subsidiary's head office location;
- total gross remuneration for the Group;
- the portion of employees eligible for performance-related remuneration;
- the accident severity rate (number of days' leave for work-related accidents x 1000/number of hours worked);
- the average number of days' absence (sick leave + leave following work-related accident) per employee;
- for EDF, the number of occupational illnesses declared to the Social Security organisation;
- the number of hours of training.

Since 2011, the population concerned by data collection comprises all employees who have a non-suspended employment contract with a Group company.

EDF

Since 2007, calculation of the absenteeism rate has only included the following categories of absence: absences for sickness, absences due to work-related accidents, including on the journey between home and work, and miscellaneous absences (unpaid leave, unexplained absences, etc.). Absences relative to company and union activities, early retirement leave and maternal absences are not included. The absenteeism rate is calculated based on the theoretical number of hours worked.

EDF and ERDF

The workforce reported includes employees who are co-employed by both EDF and GDF Suez. An employee working 50% for EDF counts as 0.5 in the published workforce.

Data on the number of accidents during the year and the number of days' leave for work-related accident at EDF is supplied by the HR information system (Sprint), or the Safety information system (Ariane Web). If the two systems contain different figures, the Group reports the less favourable figure.

Group data

Changes in the consolidated group are not entirely reflected in arrivals and departures recorded by Group subsidiaries, and this is the main reason for the variance between the 2012 workforce as reported and as recalculated based on 2011 workforce and arrivals/departures.

Changes in IEG status workforce numbers are considered as transfers and not included in new arrivals, resignations or redundancies, in application of a sector-specific agreement (IEG statutes).

Staff movements between ERDF and EDF are included in "Other arrivals" and "Other departures".

The frequency rate for work-related accidents does not include accidents on the home-work journey. Road accidents may be taken into account when local legislation considers them as work-related accidents. The number of fatal accidents includes work-related accidents and accidents on the home-work journey, but does not include fatal accidents for subcontractors.

The age groups used for Dalkia employees are slightly different from EDF Group age groups: "24 and under"; "25-34"; "35-44"; "45-54"; "55 and over". Figures are consequently extrapolated.

Training is not included when no supporting documentation has been received at the reporting date.

Data on training under professionalisation contracts is not always included.

In countries where there is no regulatory requirement to declare the number of disabled employees, the reported figure is based on voluntary declarations by employees.

Environmental indicators

The environmental indicators are prepared for this report on the basis of a set of descriptions and methodologies that make up the EDF group reporting standards for 2012. All indicators on consumption and emissions relate to the electricity and heat generation process.

The accounting data on provisions for decommissioning and last cores, and for the back-end nuclear cycle, are consolidated Group data taken from the Group's consolidated accounts.

Indicators for water drawn and returned

Indicators on cooling water include water drawn from and returned to rivers, sea and ground water, and may also include water drawn from distribution networks and returned to waste water networks. For nuclear plants located on the coast and fossil-fired plants, the quantities of cooling water drawn/returned are calculated based on the operating time and nominal debit from pumps. "Fresh water" indicators (including brackish water where relevant) were added in 2010.

Air emissions

CO_2 and SO_2 emissions by EDF's power plants are measured or calculated based on fuel analysis or standard emission factors.

CO_2 and SO_2 emissions by EDF's fossil-fired plants cover all phases of electricity generation, including plant start-up and shutdown.

EDF SA's SF_6 emissions are calculated based on the mass balance of SF_6 bottles or a nominal annual leakage rate of 2% of the volume of SF_6 contained in facilities.

2012 is the first year that the SF_6 indicator has been published for the Group as a whole.

Non-nuclear waste

Data on non-nuclear waste are taken from information available at the year-end concerning the quantities removed and the elimination channels. The reported data do not include:

- Non-nuclear industrial waste of Dalkia International and Dalkia Investissement;
- The portion of non-nuclear industrial waste recycled at certain subsidiaries such as certain Polish subsidiaries and certain subsidiaries in the Asia-Pacific region.

Waste from construction and decommissioning sites is included in the figures reported when the EDF group is responsible for its management, but waste managed by subcontractors is excluded. On a construction site, for example, the builder is generally in charge of dealing with waste (packaging, product leftovers, paintpots, etc).

For ERDF, the 2012 reporting on waste concerns a rolling 12-month period, and wooden posts are now included. Concrete posts are excluded, because the current reporting arrangements cannot provide satisfactory monitoring figures.

In 2011, the scope of reporting for dangerous waste, non-dangerous waste and non-nuclear industrial waste that has been recycled or removed for recycling was extended to the EDF group, rather than simply EDF and ERDF.

Nuclear waste

EDF

The indicator for "Very low level radioactive waste from decommissioning" comprises:

- the actual tonnage of waste sent directly to the low level storage centre;
- the tonnage of waste sent to the Centraco fusion unit, weighted by an estimated ratio, calculated annually based on 3-year reports from the processing subsidiary Socodei, to arrive at the share of very low level radioactive waste ultimately sent to the appropriate storage centre.

In 2011 and 2012, all very low level radioactive waste from decommissioning was sent directly to the storage centre.

The "Low and medium level short-life solid radioactive waste produced by reactors in operation" indicator does not include waste resulting from occasional maintenance (vessel lids, steam generators). The volume of waste calculated corresponds to the volume of waste stored at the Aube centre (after compacting, incineration and fusion). The volume of waste resulting from reconditioning of waste produced and conditioned in previous years is not included.

The "High and medium level, long-life solid radioactive waste" indicator includes an uncertainty relating to the conditioning ratio (number of packages actually made after processing of one tonne of fuel), which can only be observed after the event as this ratio essentially depends on the blends used to optimize operations. This indicator is an estimate based on ongoing application of current practices for conditioning long-life waste which projects the current conditioning into the near future.

EDF Energy

Data for the "Medium level radioactive waste" reported by Existing Nuclear, EDF Energy's nuclear division, are based on the inventory of nuclear waste in the UK drawn up by the Nuclear Decommissioning Authority. The figure is an estimate of the annual volume of waste that will be considered and classified as medium level radioactive waste when the nuclear generation sites are shut down, and includes the volume of conditioning required to transport the waste from the sites. All medium level radioactive waste is stored at the nuclear generation sites to await a national decision on its final treatment.

"Low level radioactive waste" includes desiccants sent for processing in the form of medium level radioactive waste, in compliance with applicable regulations.

Constellation Energy Nuclear Group

The "Solid low and medium level radioactive waste" of Constellation Energy Nuclear Group (CENG) covers radioactive waste that is not high level. The Nuclear Regulatory Commission (NRC) draws a distinction in the US between three types of solid low and medium level radioactive waste: types A, B and C, depending on the activity (A being the lowest-activity). Data reported by CENG are volumes of conditioned waste removed from sites declared to the NRC (volumes of waste generated by the Ginna site in 2010).

The "Nuclear fuel delivered" indicator reported by Constellation Energy Nuclear Group is the quantity of fuel delivered to generation sites. These quantities are expressed in grammes of uranium, and are reported by suppliers and declared to the NRC.

Quantity of electricity and heat produced from renewable energies

Data on Dalkia International's electricity and heat generation from renewable energies are included in the consolidated figure in 2012. The proportions of electricity and heat generated from renewable energies are estimated as a prorata of the qualities of electricity and heat output.

Environmental expenses

Environmental protection expenses are expenses declared by the various entities of EDF.

The definition of environmental protection expenses used by the Group is derived from the CNC recommendation of 21 October 2003 (itself inspired by the European recommendation of 30 May 2001). 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.

They relate, for example, to:

- waste elimination and waste limitation efforts;
- anti-pollution measures for the ground, surface water and underground water;
- protection of air and climate quality;
- reduction of noise emissions;
- protection of biodiversity and the landscape;
- plant decommissioning.

The amount of these expenses is assessed on their cost excluding taxes, allocated between three main categories:

- operating expenses (including studies that qualify as operating expenses), not including expenses covered by a provision;
- investment expenditure (including the related studies);
- amounts allocated to provisions, including discount expenses.

2012 Report by the Chairman of the EDF Board of Directors on corporate governance, internal control and risk management procedures

Introduction

Pursuant to Article L. 225-37 of the French Commercial Code, this report sets out:

- the corporate governance environment (the composition of the Board of Directors, the conditions under which the Board of Directors' work is prepared and performed, and the limits on the Chairman and CEO's powers), the principles and rules laid down by the Board of Directors to determine the corporate officers' compensation and the provisions governing shareholder involvement in EDF general meetings (§ 1);
- as well as the internal control and risk management procedures implemented within the EDF group (§K 2).

For the purposes of this report, the terms "EDF" or "Company" refer to Électricité de France SA.

The terms "EDF group" or "Group" refer to:

- the EDF corporation;
- its subsidiaries in the regulated sector: RTE and ERDF, which are respectively responsible for managing the energy transmission and distribution networks, for which the legal and regulatory framework (French Energy Code) provides for specific management independence that limits the control over their activities by the parent company: "the regulated subsidiaries";
- its other directly or indirectly held subsidiaries, over which it has majority control, in or outside France [1]: "the controlled subsidiaries";
- its affiliates that are jointly-controlled, such as CENG and Dalkia International: "the jointly-controlled affiliates";
- affiliates in which the Group has direct or indirect minority holdings: "the shareholdings".

Note 1: the scope for the Group's consolidated financial statements is detailed in note 52 of the notes to the consolidated financial statements as of 31 December 2012 (see chapter 20 of the 2012 Reference Document).

Note 2: the information that is specific to the subsidiaries RTE and Électricité de Strasbourg is available in the reports produced by these two companies pursuant to Article L. 225-37 of the French Commercial Code. The practices and terms for exercising control may differ depending on the specific area of activity of the entities mentioned above, and will be specified as necessary throughout this report.

1 Corporate governance

The functioning of the Company's administration and management bodies is described in chapter 16 of the 2012 Reference Document.

1.1 Corporate Governance Code

EDF adheres to the AFEP-MEDEF Consolidated Code. This is the corporate governance code to which the Company refers pursuant to Article L. 225-37 of the French Commercial Code, subject to the specific provisions of the law and regulations that are applicable to EDF.

These specific provisions, which are a result of EDF being a state-owned company, and in particular the application to the Company of Law no. 83-675 of 26 July 1983 on the Democratisation of the Public Sector and Decree no. 53-707 of 9 August 1953, concern, in particular, the division of the Board of Directors into three colleges and the impact of this on the proportion of independent Board and Board committee members, the rules that determine the compensation awarded to the Chairman and CEO, the directors' 5-year terms of office and the reappointment en masse of the Board members, as well as the rules governing the appointment of the EDF Chairman and CEO and the way in which Executive Management decisions are taken and implemented in the Company.

For more details, please refer to section 16.1 and chapters 14, 15 and 16 of the 2012 Reference Document.

1.2 Composition and functioning of the Board of Directors

The Internal Regulations of the Board of Directors specify the principles on which the Board operates and how the Board, as well as the specialised advisory committees set up by the Board, fulfil their remits. These Regulations also stipulate the role and powers of the Chairman and CEO.

These Internal Regulations are reviewed as required, in order to take into account any changes in the law and regulations, for example.

1.2.1 Composition of the Board of Directors

In accordance with Article 6 of Law no. 83-675 of 26 July 1983 on the democratisation of the public sector, 18 directors sit on the Board. The employees elect one-third of the directors. The remaining two-thirds are appointed during ordinary general meetings, following a proposal by the Board of Directors, with the exception of the directors who represent the French State, who are appointed by decree.

In accordance with Article 11 of the Law on the Democratisation of the Public Sector, members of the Board of Directors serve a five-year term of office.

The conditions under which directors may be removed from office are provided for in Article 12 of the Law on the Democratisation of the Public Sector (see section 16.2.1.2 of the 2012 Reference Document).

If a member's seat on the Board of Directors becomes vacant, regardless of the cause, the incoming director's term of office only lasts until the Board membership is next renewed en masse.

1. *EDF took over Edison in 2012 and the company will progressively be incorporated in EDF's internal control and risk management system.*

As of the date of this report, the Board of Directors comprises:

- 6 directors appointed by general shareholders' meetings: Henri Proglio, Chairman and CEO, Mireille Faugère, Philippe Crouzet, Michael Jay, Bruno Lafont and Pierre Mariani;
- 6 directors who represent the State: Marie-Christine Lepetit, David Azéma, Yannick d'Escatha, Julien Dubertret, François Loos and Pierre Sellal;
- 6 directors elected by employees: Christine Chabauty and Marie-Hélène Meyling, Alexandre Grillat, Philippe Maïssa, Jean-Paul Rignac and Maxime Villota.

The list of the directors' personal details is provided in section 14.1 of the 2012 Reference Document. Pursuant to Law no. 2011-103 of 27 January 2011 on the balanced representation of women and men on boards of directors and supervisory boards, and professional gender equality, EDF, in its capacity as a listed *société anonyme* and state-owned company, is subject (i) to the rules applicable to listed companies (as regards the college of directors appointed by general meetings) and (ii) to the rules applicable to public institutions (for the college of directors appointed by decree). As of the date of this report, the EDF Board of Directors has four female members (22.2% of the total Board membership), one of whom belongs to the college of directors appointed by general shareholders' meetings. The second belongs to the college of directors appointed by decree and the two others belong to the college of directors elected by the employees (see section 16.2.1.1 of the 2012 Reference Document).

Decree no. 2012-406 of 23 March 2012 [1] appointed a Government Commissioner to the Company Board of Directors. The Government Commissioner attends Board meetings in an advisory capacity.

By Order of 15 June 2012, Pierre-Marie Abadie, Director of Energy at the Directorate General for Energy and Climate, which reports to the Minister for Ecology, Sustainable Development and Energy, was appointed Government Commissioner.

The Head of the French State's economic and financial evaluation of EDF [2] and the Secretary of the Central Works Council attend the meetings of the Board of Directors in an advisory capacity.

1.2.2 Obligations and duties of directors

The Internal Regulations of the Board of Directors provide that Board members' obligations include: acting in the interest of the Company, informing the Board of Directors of any conflicts of interest and abstaining from voting in any discussion involving a potential conflict of interest, respecting the confidentiality obligation and complying with EDF's Stock Market Compliance Charter.

The members of the Board of Directors, and the Chairman and CEO are required to inform the Board of Directors immediately of all agreements entered into by the Company in which they have a direct or indirect interest or that are entered into by an intermediary.

Each director receives a regularly updated Director's Handbook that is primarily a compendium of the Company's bylaws, the Internal Regulations of the Board of Directors and its Committees, the Stock Market Compliance Charter (see section 16.5 of the 2012 Reference Document) and the AFEP-MEDEF Code.

1.2.3 Executive Management method, powers and responsibilities of the Chairman and CEO

According to the EDF bylaws, the Chairman of the Board of Directors is responsible for the general management of the Company and has the title of Chairman and Chief Executive Officer (CEO).

EDF's bylaws thus stipulate that the duties of Chairman and CEO are not conferred on separate persons. The Board Internal Regulations and, in particular, the limits they place on the CEO's powers, are designed to ensure a balance of power between the executive corporate officer and the Board of Directors, while maintaining requisite flexibility and responsiveness in the administration and management of the Company.

The EDF Chairman is appointed by Presidential decree on the basis of a proposal of the Board of Directors and may also be removed from office by such a decree, in accordance with Article 10 of the Law on the Democratisation of the Public Sector.

Henri Proglio was appointed Chairman and CEO of EDF on 25 November 2009, by decree.

Subject to the specific provisions of the law relating to public sector companies and the powers that the law or the bylaws expressly reserve for the Board of Directors or shareholders' meetings, as well as the limits on the powers of the Chairman and CEO set forth in the Board of Directors' Internal Regulations as an internal rule (see § 1.2.4), the Chairman and CEO is vested with the broadest powers to act on behalf of the Company in all circumstances, within the limit of the corporate purpose. The Chairman and CEO organises and oversees the Board of Directors' work, on which he reports to general meetings. He ensures that the various corporate bodies function correctly and, in particular, verifies that the directors are able to fulfil their remits.

1.2.4 Powers and remits of the Board of Directors

In accordance with the law, the Board of Directors determines the Company's business policies and ensures that these policies are implemented. Subject to the powers that are expressly conferred on shareholders' meetings and within the limit of the corporate purpose, the Board of Directors may take it upon itself to review all matters that are related to the smooth running of the Company, governing such affairs through its deliberations.

Moreover, in accordance with Article 7 of the Law on the Democratisation of the Public Sector, the Board deliberates on all the Company's and the Group's strategic, economic, financial or technology policies, as well as on matters that the law expressly entrusts to the Board or that the Board has reserved for itself.

Pursuant to its Internal Regulations, solely the Board of Directors can authorise the following operations:

- acquisition-based and internal growth operations or disposals that represent financial exposure for the Company in excess of €200 million. This threshold is reduced to €50 million for acquisitions that are not consistent with the Company's strategy policies;
- real estate transactions that exceed €200 million;
- certain financial transactions for which the amount exceeds the value determined each year by a specific Board decision; for the 2012 fiscal year, the Board set (i) the total amount of the aggregate authorisation for guarantees, endorsements and sureties at €500 million (the Chairman and CEO reports to the Board on all transactions of this type for which the unit amount exceeds €100 million, which are granted on behalf of the Company or by an undertaking that is controlled by the Company) and (ii) the nominal unit amount of certain financial transactions at €5 billion;
- procurement contracts (for supplies, works or services, with or without a financial commitment) for which the amount, including that of any successive riders entered into during the same year, is equal to or higher than €200 million, or between €100 and €200 million if these procurement contracts correspond to a new Group strategic policy or business line;

1. *Decree that amends Decree no. 2004-1224 of 17 November 2004 that provides for the bylaws of the société anonyme Electricité de France.*
2. *In accordance with the Decree no. 55-733 of 26 May 1955, this assignment performs the French State's economic and financial evaluation of EDF. Extended audit procedures may be performed.*

- long-term contracts for the purchase or sale of energy, or CO2 emission credit and allowances, which were entered into by the Company or by a company under its exclusive control, for annual volumes or amounts in excess of:
  - 10 TWh for electricity,
  - 20 TWh for gas (detailed information on long-term contracts for the sale or purchase of gas for more than 5 TWh and less than 20 TWh is also provided during the Board meeting that follows their signature),
  - €250 million for coal and carbon dioxide;
- strategies related to nuclear fuel cycle front-end and back-end operations;
- operations to transfer obligations relating to decommissioning or the back-end of the nuclear fuel cycle.

The Board of Directors establishes the framework for the policy on the constitution and management of the assets used to cover nuclear commitments, and votes, in particular, on asset-liability management, the asset allocation strategy, the quality of the assets and the method used to select any financial intermediaries. The Board sets the market, counterparty and liquidity risk limits.

Lastly, pursuant to the Law no. 2011-103 on the balanced representation of women and men on boards of directors and supervisory boards [1] and professional gender equality, the Board of Directors must deliberate annually on the Company's policy on professional gender equality and equal pay.

1.2.5 Assessment of director independence

The AFEP-MEDEF Corporate Governance Code recommends that, in controlled companies, at least one-third of the seats on the Board of Directors should be held by independent directors. Given the specific legal framework that applies to the Company, out of a total of 18 members, the Board of Directors has 12 directors (six who represent the French state and six who represent the employees) who cannot meet the independence criteria defined by the AFEP-MEDEF Code. During the joint meeting of 8 January 2013, the Ethics Committee and the Nominations and Compensation Committee reviewed each director's individual position. On the basis of the these Committees' findings, during its meeting of 30 January 2013, the Board of Directors assessed the independence of the directors in light of the criteria defined by the AFEP-MEDEF Corporate Governance Code and confirmed that Mireille Faugère, Philippe Crouzet, Michael Jay, Bruno Lafont and Pierre Mariani qualify as independent directors. In the Board's opinion, these directors have no ties with the Company, its Group or its Management that would be liable to compromise their freedom of judgement.

As of the date of this report, the Company Board of Directors therefore has five independent directors out of a total of 18 members.

1.2.6 Functional assessment of the Board of Directors

In accordance with the provisions of the AFEP-MEDEF Code, the Board of Directors Internal Regulations require the Ethics Committee to perform an annual functional assessment of the Board of Directors and to suggest areas that require improvement. Consequently, once a year the Board of Directors devotes an agenda item to this assessment and discusses how the Board functions, in order to improve the Board's effectiveness, and to verify that major issues are properly prepared and discussed within the Board. Moreover, every three years, an outside consultant performs this assessment, which is overseen by the Ethics Committee.

The last assessment performed by an outside firm was conducted in 2010. In 2012, the annual assessment was performed internally using a questionnaire, then validated by the Board following a proposal by the Ethics Committee. According to the results of this assessment, which were reviewed by the Ethics Committee and presented to the Board of Directors on 30 January 2013, the directors are very satisfied with Company's implementation of corporate governance best practices. A strategy seminar and involving all Board members in the Group's strategic planning through its Strategy Committee were seen positively, as were the views on how the roles of the specialised Committees combine with that of the Board of Directors.

1.2.7 Director information and training

In accordance with the Board of Directors' Internal Regulations, the directors periodically receive information on the Company's and the Group's financial position, cash flow and commitments, as well as data such as the financial outcome of contracts awarded by the Company for the purchase of nuclear fuels, a performance review of the Company's main subsidiaries when the annual and half-yearly financial statements are released, the customer policy, the procurements and sub-contracting policy and the human resources policy.

A document that focuses on current affairs in the Group's major areas of business, market trends, the economic, financial and institutional environment is prepared for each Board meeting.

Directors are informed of the main events involving the Company that occur in between Board meetings, as well as the follow-up on decisions taken by the Board.

The directors may supplement this information by meeting with senior managers from the Company or Group.

Moreover, informational meetings are held on complex matters or matters of major strategic importance, as well as areas in which the directors wish to receive training.

1.3 Board activity in 2012

The Board of Directors meets as often as the interest of the Company requires, in accordance with the provisions of the law and regulations. During the 2012 fiscal year, the Board of Directors met nine times and 27 committee meetings were held in order to prepare these meetings. The Board also held a strategy seminar.

On average, Board meetings lasted two-and-a-half hours, which allowed for an in-depth review and discussion of the agenda items.

The directors' average attendance rate at Board meetings was 89.5% in 2012.

In 2012, in addition to the numerous matters associated with the day-to-day running of the Company, the Board of Directors reviewed and authorised major courses of action, such as:

- acquiring exclusive control of the Italian company Edison;
- the sale of the Sutton Bridge plant (United Kingdom) in accordance with the commitment EDF made to the European Commission, as part of the acquisition of British Energy at the end of 2008.

Moreover, during a strategy seminar, the Board reviewed the consequences for the Group of changes in the energy sector and the positions of market participants, potential avenues for development and the financial trajectory.

1. *See section 16.2.1 of the 2012 Reference Document.*

1.4 Committees that report to the Board of Directors

For the performance of its remits, the Board of Directors is assisted by five committees, which are tasked with reviewing and preparing specific files, prior to their presentation to the full Board. These specialised committees are: the Audit Committee, the Nuclear Commitments Monitoring Committee, the Strategy Committee, the Ethics Committee and the Nominations and Compensation Committee.

The membership, functioning and remits of the Committees are governed by the Board of Directors Internal Regulations.

The Board of Directors selects the directors who sit on these Committees. The Board appoints the Chairman of each Committee following a proposal by the members of the Committee concerned.

The Government Commissioner attends Board meetings in an advisory capacity.

The Head of the French State's economic and financial evaluation of EDF is invited to attend committee meetings.

The Committees' work is organised within the framework of an annual programme. Meetings are recorded in written minutes. Each committee chairman provides written reports to the Board of Directors.

1.4.1 Audit Committee

1.4.1.1 Functioning and composition

The Audit Committee fulfils the remits conferred on it in accordance with the provisions of Order no. 2008-1278 of 8 December 2008, which transposed the eighth European Directive of 17 May 2006 on statutory audits of annual accounts and consolidated accounts into French law.

Article L. 823-19 of the French Commercial Code provides that at least one member of the Audit Committee must have specific financial or accounting skills, and be independent on the basis of criteria that are specified and made public by the Board of Directors.

During the joint meeting of 14 January 2011, the Ethics Committee and the Nominations and Compensation Committee reviewed Pierre Mariani's position and issued an opinion that was presented to the Board of Directors. During the Board meeting of 21 January 2011, the directors noted that Mr. Mariani has specific financial and accounting skills, as per the criteria recommended by the French financial markets authority (*Autorité des marchés financiers* – AMF) in its report on the Audit Committee dated 22 July 2010, and that he meets both the skills and independence criteria, in accordance with Article L. 823-19 of the French Commercial Code (see § 1.2.5).

More generally, all the Audit Committee members contribute to the quality of Committee discussions through their experience and skills.

The Audit Committee is chaired by Pierre Mariani, an independent director appointed by the general shareholders' meeting and a respected figure from outside the EDF group. The other members are David Azéma and Yannick d'Escatha, two directors who represent the French state, along with Marie-Hélène Meyling, Alexandre Grillat and Maxime Villota, three directors who were elected by the employees.

David Azéma was appointed as Audit Committee member by the Board meeting of 22 November 2012. He replaces Jean-Dominique Comolli.

The membership of the Company Audit Committee reflects the specificities of the Board of Directors' membership caused by the Law of 26 July 1983 on the Democratisation of the Public Sector, which makes it difficult to comply with the proportion of two-thirds of independent directors recommended by the AFEP-MEDEF Code. However, in the Company's opinion, although two-thirds of the Audit Committee members are not independent directors, its current membership does not adversely affect the Committee's competencies or its ability to effectively perform the assignments conferred on it by the law and the Board Internal Regulations.

The Chairman and CEO attends the Committee meetings that review the annual and half-yearly financial statements, the medium-term plan and the budget.

The Audit Committee met seven times in 2012. The average rate of attendance for directors who are members of this Committee was 85.7%.

1.4.1.2 Remits

Prior to review by the Board of Directors, the Audit Committee analyses and issues an opinion on:

- the Company's financial position;
- the medium-term plan and the budget;
- the draft financial reports prepared by the Corporate Finance Division (parent company financial statements, Group consolidated financial statements and Group management report);
- the monitoring of the Company's risks (in particular, this Committee reviews the Group's risk mapping and risk mitigation methods every six months);
- audit and internal control: the organisation, deployment and assessment of internal control, half-year audit programmes, main findings and resulting corrective measures, follow-up on their implementation, as well as the draft annual report by the Chairman of the Board of Directors on corporate governance, internal control and risk management procedures;
- the insurance policy strategy;
- the selection of Statutory Auditors, while ensuring their independence, and the fees paid to them;
- the review of the financial aspects of external growth operations or disposals that are particularly significant in nature (see § 1.2.4);
- changes in analysts' perception of the Group.

As part of its work, the Committee is in regular contact with the Statutory Auditors and the Executive Management, as well as the Corporate Finance, Corporate Risk Management and Internal Audit Divisions.

1.4.1.3 Activities in 2012

In 2012, the Audit Committee reviewed matters that specifically fall within the bounds of its remits (half-yearly and annual financial statements and related press releases, press releases on the quarterly sales figures, risk mapping, internal audit summary reports and the audit programme).

It also reviewed the consequences of taking over Edison for the Group's financial statements.

1.4.2 Nuclear Commitments Monitoring Committee

1.4.2.1 Functioning and composition

The Nuclear Commitments Monitoring Committee is chaired by Philippe Crouzet, an independent director appointed by the general shareholders' meeting and a respected figure from outside the Group. The other committee members are Marie-Christine Lepetit and Yannick d'Escatha, two directors who represent the French State, and Marie-Hélène Meyling and Maxime Villota, two directors who were elected by the employees.

Marie-Christine Lepetit was appointed as member of the Nuclear Commitments Monitoring Committee by the Board meeting of 24 May 2012, as a replacement for Pierre-Marie Abadie.

The Nuclear Commitments Monitoring Committee met three times in 2012. The average rate of attendance by directors who are members of this Committee was 86.7%.

1.4.2.2 Remits

The Nuclear Commitments Monitoring Committee is tasked with monitoring changes in nuclear provisions, commenting on governance issues related to dedicated assets, the rules for matching assets and liabilities and on strategic allocation, and ensuring the compliance of EDF's asset management within the framework of the policy on the constitution and management of dedicated assets. To this end, it can call on the support of the Nuclear Commitments Financial Expertise Committee (CEFEN), which comprises six [1] independent experts. The CEFEN's remit is to assist the Company and its governance bodies in this area.

1.4.2.3 Activities in 2012.

In 2012, the Committee reviewed, in particular as part of the policy on the constitution and management of dedicated assets, the state of progress of the project for the disposal of high-level waste and long-lived intermediate-level waste (HLW/ILW-LL), and the 2012 update letter on the second three-year report on securing the financing of nuclear expenses (see § 2.3.3.1).

1.4.3 Strategy Committee

1.4.3.1 Functioning and composition

Henri Proglio, the Chairman and CEO, chairs the Strategy Committee. The other members are Michael Jay, an independent director appointed by the general shareholders' meeting and a respected figure from outside the Group, Marie-Christine Lepetit, David Azéma and Pierre Sellal, three directors who represent the French State, along with Marie-Hélène Meyling, Alexandre Grillat and Jean-Paul Rignac, three directors who were elected by the employees.

Marie-Christine Lepetit was appointed as a Strategy Committee member by the Board meeting of 24 May 2012, as a replacement for Pierre-Marie Abadie.

David Azéma was appointed as a Strategy Committee member by the Board meeting of 22 November 2012, as a replacement for Jean-Dominique Comolli.

Since 2010, the Chairman has invited directors who are not members to attend Strategy Committee meetings, so that the Board of Directors is more involved in strategic discussions.

The Strategy Committee met five times in 2012. The average rate of attendance by directors who are members of this Committee was 90%.

1.4.3.2 Remits

The Strategy Committee issues an opinion to the Board of Directors on the Company's major strategy policies, in particular the strategic development plan, the industrial and commercial policy, the Public Service contract, strategic agreements, alliances and partnerships, the research and development policy, external or internal growth or disposal projects that require authorisation from the Board of Directors.

1.4.3.3 Activities in 2012

In 2012, the Strategy Committee reviewed in particular the implications of the complementary security assessments for EDF and EDF Energy's nuclear fleets, the Group's renewable energies strategy, as well as, during a joint meeting with the Ethics Committee, the Group's human resources policy and EDF's professional gender equality and equal pay policy.

1.4.4 Ethics Committee

1.4.4.1 Functioning and composition

Mireille Faugère, an independent director who was appointed by the general shareholders' meeting and a respected figure from outside the Group, chairs the Ethics Committee. The other members are Marie-Christine Lepetit, one of the directors who represent the French State, along with Christine Chabauty, Marie-Hélène Meyling, Alexandre Grillat and Philippe Maïssa, four directors who were elected by the employees.

Marie-Christine Lepetit was appointed as a member of the Ethics Committee by the Board meeting of 24 May 2012, as a replacement for Pierre-Marie Abadie.

The Ethics Committee met nine times in 2012. The average rate of attendance by directors who are members of this Committee was 81.1%.

1.4.4.2 Remits

The Ethics Committee ensures that ethical considerations are taken into account in the work of the Board of Directors and in the management of the Company. The Committee reviews the reports filed by the Mediator, the General Inspector of Nuclear Safety and Radioprotection, the Inspector of Hydro Safety and the General Inspector of Regulated Activities Governance.

Moreover, each year the Ethics Committee oversees an assessment of how the Board and its Committees function. Every three years, this is entrusted to an outside consultant (see § 1.2.6).

Moreover, the Committee periodically visits operations sites in order to understand the matters that fall under its authority.

1.4.4.3 Activities in 2012

In 2012, among other things, the Ethics Committee studied the draft Group Ethics Charter, the Group Health and Safety Policy, the Group's communication and sponsorship policies and, during a joint meeting with the Strategy Committee, the Group's human resources policy and EDF's professional gender equality and equal pay policy.

1.4.5 Nominations and Compensation Committee

1.4.5.1 Functioning and composition

Bruno Lafont, an independent director appointed by the general shareholders' meeting and a respected figure from outside the Group, chairs the Nominations and Compensation Committee. The other members of the Committee are Michael Jay, an independent director appointed by the general shareholders' meeting and a respected figure from outside the group and David Azéma, one of the directors who represent the French State.

David Azéma was appointed as an Nominations and Compensation Committee member by the Board meeting of 22 November 2012, as a replacement for Jean-Dominique Comolli.

The Nominations and Compensation Committee met three times in 2012. The average rate of attendance by directors who are members of this committee was 88.9%.

1.4.5.2 Remits

The Nominations and Compensation Committee submits proposals to the Board of Directors with a view to directors being appointed by the general shareholders' meeting. The committee sends the Minister responsible for the economy and finance, and the Minister responsible for energy, an opinion, for approval, on the salary, variable compensation (criteria used to determine the variable portion and assessment of the results obtained compared to the targets set), and peripheral compensation of the Chairman and CEO. It

1. *Appointed by the Board of Directors on 26 October 2010 for three years.*

also sends this opinion to the Board of Directors, with a view to the Board discussing and determining these compensation components.

Where applicable, the committee reviews the compensation paid to Vice-Presidents. It provides an opinion to the Board of Directors on the conditions for establishing the compensation of the principal senior executives (fixed and variable components, calculation method and indexing), as well as on the amount and conditions for allocating the directors' fees. The Committee ensures that succession plan charts exist for positions on the Executive Committee.

1.4.5.3 Activities in 2012

In 2012, among other matters, the Nominations and Compensation Committee reviewed the variable component of the Chairman and CEO's compensation in respect of 2011 and his gross annual compensation, as well as the criteria used to calculate his variable compensation in respect of 2012 (see section 15.1 of the 2012 Reference Document).

1.5 Compensation

The terms for setting EDF corporate officers' compensation, the principles and rules established by the Board of Directors for determining this compensation and the amounts paid to directors in 2012, are detailed in chapter 15 of the 2012 Reference Document.

1.6 Shareholders' meetings

The rules governing shareholder involvement in general meetings are set out in article 20 of the Company bylaws, and are described in section 21.2.7 of the 2012 Reference Document.

Moreover, the information provided for by Article L. 225-100-3 of the French Commercial Code is published in the Company's Reference Document.

2 EDF Group internal control

The purpose of this report is not to give an exhaustive presentation of all the control procedures that exist within the Group's companies, but to emphasise the control procedures that concern activities or risks that are deemed to be significant, as well as the main long-term procedures in effect in 2012, highlighting any changes and key initiatives developed during that year. These internal control and risk management procedures are consistent with the general principles stipulated in the AMF Reference Framework for risk management and internal control [1] (published on 22 January 2007 and updated on 14 June 2010).

2.1 Control environment

2.1.1 Executive Management steering structures

EDF's Executive Management is organised in line with two major policies: improve functioning as an integrated Group while respecting the management autonomy of the regulated subsidiaries and reinforce the role of the operating teams in the decision-making process.

Executive Committee

The Chairman and CEO is supported by an Executive Committee comprising representatives from all the Group's business lines, together with representatives from corporate finance, legal affairs and human resources.

The Executive Committee membership was as follows as of the date of this report:

- Henri Proglio, Chairman and CEO, Chairman of the Executive Committee;
- Marianne Laigneau, EDF Group Senior Executive Vice President, Human Resources;
- Henri Lafontaine, Group Senior Executive Vice President representative, Customers, Optimisation, Trading and IES (Island Energy Systems);
- Pierre Lederer, Special Advisor to the Chairman;
- Hervé Machenaud, Group Senior Executive Vice President, Generation and Engineering;
- Thomas Piquemal, Group Senior Executive Vice President, Finance;
- Vincent de Rivaz, Chief Executive of EDF Energy; and
- Alain Tchernonog, General Secretary.

Denis Lépée, Advisor to the Chairman, is the Secretary to the Executive Committee.

This Committee is a forum for reflection, discussions on strategy and consultation on the Group's crosscutting issues. It monitors the targets and operating results, and contributes to the management and anticipation of the EDF group's major strategic challenges. The Committee reviews and approves major projects and, in particular, Group investment or divestment projects for which the amounts exceed certain thresholds. The Executive Committee meets weekly.

Commitments Committee within the Group Executive Committee

A Commitments Committee performs in-depth reviews of planned commitments for the Group (excluding regulated subsidiaries) to which the Executive Committee is, in principle, favourable, prior to the Commitments Committee making a final decision. Projects that receive a favourable opinion are monitored. No Company investment project can be submitted to the Board of Directors for review without first being approved by this Committee.

Management Committee

In 2010, the Executive Management organisation was complemented by the creation of a Management Committee. The Executive Committee members also sit on the Management Committee, along with the Group's top international executives and the heads of geographical regions, the Chairman of the ERDF Management Board and Directors of Company support functions. The membership was as follows as of the date of this report:

- Michèle Bellon, Chair of the ERDF Management Board;
- Jean-Paul Bouttes, Senior Executive Vice President, Corporate Strategy and Prospective;
- Antoine Cahuzac, CEO, EDF EN;
- Catherine Gros, Group Senior Executive Vice President, Communications;
- Philippe Huet, Associate General Secretary, Senior Executive Vice President, Risks and Audit;
- Bruno Lescœur, Senior Executive Vice President representative, Gas and Southern Europe;
- Philippe Méchet, Senior Executive Vice President, Institutional Relations;
- Olivier Orsini, Senior Executive Vice President, Development in South America, Africa, the Middle East and the Community of Independence States (CIS) and associated partnerships;

1. *In preparing this report, EDF used the AMF Reference Framework (chapters 2.3.1 to 2.3.4), which is based on the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") reference framework (chapters 2.1 to 2.5).*

- Bernard Salha, Senior Executive Vice President, Research and Development;
- Eric Thomas, Group General Counsel;
- Gérard Wolf, Senior Executive Vice President, responsible for relations with the Washington-based international financial institutions.

The Management Committee brings together business line, geographical and functional expertise. It is a forum for discussion between the Group's top executives on crosscutting matters. It provides support to the Company's Executive Management for strategy implementation and steering synergies within the Group. This Committee meets monthly.

General Inspector of Nuclear Safety and Radioprotection

The General Inspector of Nuclear Safety and Radioprotection, who is appointed by and reports to the EDF Chairman and CEO, is tasked with conducting audits in his or her spheres of action and issuing an annual opinion on the overall safety of the Group's nuclear power stations. The remit also includes making proposals to Executive Management regarding potential areas for improvement.

EDF Group Inspector of Hydro Safety

The EDF Group Inspector of Hydro Safety, who is appointed by and reports to the EDF Chairman and CEO, is tasked with conducting audits in his or her spheres of action and issuing an annual opinion on the overall safety of the Group's hydroelectric plants. The remit also includes making proposals to Executive Management regarding potential areas for improvement.

2.1.2 Description and leadership of the internal control system

The Chairman and CEO signed off on a new decision relating to the implementation of internal control within the EDF group on 3 September 2010. This decision takes into account, in particular, the provisions of the Order of 8 December 2008 on statutory audits of financial statements and specifies the EDF group's internal control policies. It aims to provide a reasonable assurance of risk management at EDF, with a view to ensuring constant improvement, by using the following key principles as a foundation:

- delegated accountability to each of the Group's executives who, at every level, are responsible for:
  - managing the principal risks,
  - checking this management for the activities they have sub-delegated,
  - ensuring that the risks identified have the appropriate, proportionate control procedures in place,
  - self-assessing the procedures thus implemented and reporting regularly and formally on these procedures to their line managers;
- an audit procedure, with reporting to the Chairman and CEO, as described in § 2.1.3.2.

These key principles apply to all the Group's entities, although the implementation conditions may vary depending on the entities concerned (size, governance conditions and level of control).

Within the control scope (excluding regulated subsidiaries), these principles are implemented by the Executive Management functions at the subsidiaries that they control and in the main EDF Operating Divisions, which themselves control several operating units or subsidiaries.

Each executive concerned has appointed an "Internal Control Coordinator". The Corporate Audit Division organises this network of coordinators (around 80 persons).

An Internal Control Manual [1] has been written and is offered to each entity as a standard for the implementation of its own internal control system. This manual describes the risk areas concerned, identifies the main aims of control to be explored and suggests the best practices to be adopted. It is updated annually to take into account feedback and new control requirements. The 2012 manual took into account, in particular, a new regulatory requirement concerning the transparency and integrity of the wholesale markets for energy.

At the end of 2012, each of the 57 entities concerned produced an annual report on internal control that includes a description of their internal control system, a self-assessment [2] of this system and a statement by the head of the entity on commitment to internal control and an account of the intended measures to achieve these aims. This is the sixth consecutive year that the Group has commissioned this report. Each year a summary of these documents and how they could be interpreted in terms of internal control deployment in the Group is provided to the Chairman and CEO and the Audit Committee, then to the Board of Directors.

The Audit Division now performs full audits on these entities, which include a review of the robustness of their internal control, at the same frequency as previously (3 to 5 years depending on their size).

Concerning the other Group subsidiaries (regulated subsidiaries, and significant shareholdings), risk control is the responsibility of EDF's representatives within the governance bodies. For each subsidiary, these representatives are responsible for implementing risk mapping, producing a description of the internal control and audit systems and providing regular information on risk mapping and the audit activities (audit programme and main findings), as well as verifying the effectiveness and the relevance of each of these systems through periodic audits [3].

The Corporate Audit Division and the Corporate Risk Management Division provide support for:

- EDF representatives within its major subsidiaries, to help them implement and manage the initiative within governance bodies;
- heads of the Divisions to which they report, who are tasked with providing the same level of support to the EDF representatives within subsidiaries of lesser importance within their area of responsibility, and reporting back on this in their annual self-assessment reports.

2.1.3 The contribution to internal control by the Corporate Risk Management Division, the Group Audit function, the Finance Division and the Legal Affairs Division

2.1.3.1 Corporate Risk Management Division (DCRG)

For many years, EDF has implemented a policy for managing its operating (e.g. industrial, environmental and health), financial and organisational risks.

Over and above these sector-specific policies, in response to a constantly changing environment, back in 2003 EDF decided to establish an overarching process for managing and controlling its risks with the aim of improving existing procedures, in particular by creating the Corporate Risk Management Division, which is primarily responsible for:

- ensuring that each Group entity carries out risk mapping, either directly for the EDF scope and that of the controlled subsidiaries, or through the governance bodies for the regulated subsidiaries and jointly-controlled affiliates, and establishing and updating the consolidated risk mapping of the Group's major risks (see § 2.2.2);
- warning the Chairman and CEO and the Executive Committee of emerging risks and risks that have not been adequately identified;

1. *In preparing this report, EDF used the AMF Reference Framework (chapters 2.3.1 to 2.3.4), which is based on the COSO reference framework (chapters 2.1 to 2.5).*
2. *Self-assessments report on all the areas of action mentioned in the AMF Reference Framework.*
3. *For regulated subsidiaries, these responsibilities are exercised within the limits laid down by the regulations in force.*

- consolidating the deployment of the risk control policy, either directly within the EDF scope and that of the controlled subsidiaries, or through the governance bodies for the regulated subsidiaries and jointly-controlled affiliates (see § 2.2) in particular by ensuring the comprehensiveness and consistency of the various sectoral risk control policies (see § 2.3.1.1);
- ensuring the deployment of the energy market risk policy within the EDF scope 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 the controlled subsidiaries, or through the governance bodies for the regulated subsidiaries and jointly-controlled affiliates (see § 2.3.1.1.1);
- defining and implementing financial risk control (interest and currency exchange rates, liquidity and equities risks) and counterparty risk control for the EDF scope and that of the controlled subsidiaries and ensuring the control of these financial risks through the governance bodies, for the regulated subsidiaries and jointly-controlled affiliates (see § 2.3.1.1.2);
- managing the comprehensiveness and relevance of the risk analyses performed on long-term investment and commitment projects, which are submitted to Executive Committee-level bodies for approval;
- ensuring the deployment of the crisis management policy for the EDF scope and that of the controlled subsidiaries, and defining the terms of exchange and cooperation with regulated subsidiaries or the jointly-controlled affiliates during periods of crisis and guaranteeing the operational readiness of the crisis management system at Group level (see § 2.2);
- at the request of the General Secretariat, the Group Executive Commitments Committee, the Procurements Division and the Group business lines or subsidiaries management, performing the various controls that are required for managing non-financial risks linked to business relations in connection with long-term investments and commitments, partnerships, consultancy contracts or the award of sensitive procurement contracts by EDF SA.

2.1.3.2 Group Audit function

The Group Audit function is made up of all the audit resources of the Group, EDF and the subsidiaries that perform internal audit activities. The Chairman and CEO has entrusted the management of this function to the Senior Vice President, Risks and Audit. The audit function includes the Corporate Audit Division and dedicated "operations" audit teams: "business line" audit teams (in the generation and customer areas, as well as the Asia-Pacific zone for EDF) and audit teams that are specific to each of the main French and international subsidiaries and affiliates (RTE, ERDF, EDF Énergies Nouvelles, EDF Energy and EDF Trading, Edison, and EDF Luminus, formerly SPE).

The relationships between Corporate Audit and the various audit teams, along with their respective prerogatives, take into account the fact that they are part of teams at EDF, the controlled subsidiaries or the regulated subsidiaries. Corporate Audit is responsible for the operational coordination of the function (joint appointment and joint assessment of business line Audit Directors –excluding RTE and ERDF – exchanges of best practices, training initiatives, pooling tools and methods).

Qualification standards concerning EDF and the controlled subsidiaries

- The Corporate Audit Division applies international standards as defined by The Institute of Internal Auditors and ensures that these standards are promoted and upheld within the scope of control.
- The duties, powers and responsibilities of the auditors, as well as the rights and duties of the audited entities, are defined in a charter that was updated on 3 September 2010. This charter, which was signed by the Chairman and CEO, highlights the independence of the audit function and outlines the missions and commitments of the internal audit function, together with the duties and the prerogatives of auditors and audited entities.
- The Corporate Audit Division reports to the General Secretary, while the Senior Vice President, Corporate Audit, also benefits from direct access to the Chairman and CEO.
- All the Auditors in the Corporate Audit Division and the Audit departments of EDF and its controlled subsidiaries (excluding the regulated subsidiaries) are trained to use the same methodology, which is consistent with international standards. They are recruited from EDF's various business lines, as well as from external audit firms. Each auditor is assessed at the end of each mission and a transfer to audit is considered a positive career move. A memorandum of understanding was signed to this effect in March 2006 between the Corporate Audit Division and the EDF Senior Executive Development Division.
- The key processes that are essential to the proper functioning of the Corporate Audit Division throughout the chain of its activities (from the drawing up of audit programs to the monitoring of the implementation of recommendations) are outlined and overseen.

The audit function underwent an outside assessment in 2008, then in 2011-2012, which attested to compliance with professional standards.

Standards of functioning with regard to EDF and the controlled subsidiaries

- The Corporate Audit Division coordinates the deployment of the Internal Control Policy and the internal control function, ensures the audit of the internal control procedures in the various divisions and controlled subsidiaries, and conducts both crosscutting and corporate-level audits.
- The Chairman and CEO signs off on the audit programme. The programme is then reviewed by the EDF Audit Committee, which reports back to the Board of Directors. The audit programme takes into account:
  - the need to audit, at intervals adapted to their size, the Group's main entities (divisions and subsidiaries), in order to assess, in particular, the robustness of the internal control system;
  - the main accounting and financial processes;
  - major projects;
  - the major risks identified in the risk mapping, which are not covered by the above audits;
  - the monitoring decisions taken by Executive Management.
- The plan for the business line audit teams is coordinated with that of the Corporate Audit Division, which is the only structure that is authorised to perform business line audits that involve a corporate-level risk.
- All audits give rise to recommendations, which, after being approved by the audited entities and their management, form the basis for action plans on their part and are submitted to the Corporate Audit Division. During the 12 to 18 months following the audit, the Corporate Audit Division monitors the implementation of these corrective actions or any other action decided on by the management with the aim of eradicating the dysfunctions identified by the audit. An audit is only considered to have reached a satisfactory conclusion when these dysfunctions have been eliminated. In contrast, an unsatisfactory conclusion to an audit or one where reservations are expressed triggers an appropriate management alert.
- These principles are applied by the entire audit function under the same terms.
- The Corporate Audit Division issues half-yearly summary reports, which resume, for the entire scope of the Group audit function, the main audit findings and the corresponding recommendations, as well as the results of audits concluded during the period. It also identifies possible recurring or generic problems that appeared over the course of several audits conducted during the period, which warrant particular attention of the management. This report is presented first to the Chairman and CEO, then to the Audit Committee and the Board of Directors.

2.1.3.3 Corporate Finance Division

The Corporate Finance Division monitors changes that affect the markets and financial techniques, and also analyses project financial risks. Within the Corporate Finance Division, the Group Control Division is split into three sections, Management Control, Accounting and Tax. Management Control has the following remits:

- manage the forecasting processes for the Group's management cycle (budgets, forecast updates and medium-term plans), summarise these processes and proposes trade-offs at Division and subsidiary level for the Group as a whole. In its analyses, Management Control is required to issue warnings and make proposals, before decisions are taken, regarding the financial consequences of the contemplated transactions, or the proposed performance levels;
- assist operations management in performance steering: tracking of budget implementation (for which forecast adjustments are issued twice a year, as well as a monthly reporting package that covers the results achieved to date and update of the most recent forecast adjustment) is tracked through regular, general performance reviews within the Division and controlled subsidiaries;
- perform the financial control function for the Group, by contributing, in particular, to the investment control processes and by performing economic and financial optimisation analyses;
- be the driving force behind the preparation of medium- and long-term financial trajectories.

The Finance Management Heads of the Divisions and subsidiaries sit on the Management Committees of the entities to which they are assigned. They are appointed and assessed by the operations management and the Management Control service line.

Accounting has the following remits:

- prepare and publish the EDF parent company financial statements, as well as the Group's consolidated financial statements;
- ensure the quality of accounting by designing a set of Group standards that detail the accounting practices and chart of accounts to be applied;
- update, for EDF, the internal control standards concerning the management of accounting and financial information.

Moreover, the accounting Internal Control policies for the subsidiaries are the responsibility of each legal structure concerned.

Tax has the following remits:

- guarantee the consistency of tax policies within the Group;
- ensure the proper performance of legal and filing obligations, in particular by monitoring changes in legal and regulatory obligations;
- track deferred tax positions in the accounts, as well as periodic justification of the accounts;
- identify and reduce Group tax risks.

2.1.3.4 Legal Affairs Division

In addition to the contribution to the Group's internal control made by the Legal Affairs Division outlined in paragraphs 2.1.4 and 2.3.3, since 2007 EDF has kept a contract library in order to guarantee the level of knowledge and control over its sensitive contract archives. This contract library, which is an integral part of the internal control system, is a secure information system for the centralised archiving and scanning of the major contractual commitments of EDF and certain subsidiaries (excluding the regulated subsidiaries and jointly-controlled affiliates). This system was complemented by a new decision and a practical memorandum on the management of major contracts, which the General Secretary signed on 11 January 2011. Pursuant to this decision, the original counterparts of major contracts that meet certain specific criteria are centralised in a secure national storage facility.

Since 2010, Legal Affairs has tasked a knowledge manager with capitalising on, harmonising and sharing the Legal Affairs Division's precedents and positions, as well as monitoring legal developments in the field of legislation and case law that are of major interest for the Group.

Lastly, quarterly Legal Affairs reporting (for EDF and major subsidiaries), concerning litigation and major or sensitive cases, has been in use since it was introduced in 2010.

2.1.4 Delegations of powers and technical authorisations

The Chairman and CEO delegates some of his powers to the Board of Directors, in particular to certain members of the management team.

In the area of procurements, the existing organisation is designed to ensure control is maintained over purchases. Based on a series of thresholds, procurement contracts are signed by the Chairman, a Group Senior Executive Vice President or one of their delegated representatives after being approved by the Senior Vice President, Purchasing, or his or her delegated representatives; this approval confirms that the contract complies with the procurement process. Each Group Senior Executive Vice President must also reinforce the internal control procedures on procurement contracts that are submitted for his or her signature and those handled directly by their respective divisions.

The powers conferred on the "nuclear operator's representative" are delegated to the Senior Executive Vice President, Generation and Engineering, who, in turn, delegates to the Senior Vice Presidents in charge of the Nuclear Operations and Nuclear Engineering Divisions.

Each facility head, subject to prior evaluation of the appropriate skills, issues the technical authorisations allowing individuals to work in the facilities (power plants, electricity transmission networks, etc.). These requirements apply to all workers, be they employees of EDF or external service providers.

The Legal Affairs Division drafts and/or updates delegations of powers where required by changes to EDF's organisation.

In addition, a delegations of powers handbook written by the Legal Affairs Division, which was released for the first time in November 2008, has been updated and was re-released in 2010. This handbook is designed as a tool for informing and raising awareness at EDF entities on the nature, consequences and management rules for delegations of powers.

2.1.5 Ethics and Environmental Quality Initiatives

2.1.5.1 Ethics initiative

The Ethics Initiative, which is founded on a decision by the Chairman and CEO taken on 15 March 2007, is based on a reference document, known as the Ethics Handbook, which summarises EDF's five core values: respect for the individual, environmental responsibility, striving for excellence, a commitment to the community and the necessity of integrity. This document was circulated within all EDF divisions by line management. The appointment of ethics coordinators to promote the Handbook and encourage proper respect of the core values in the field has improved the existing ethics system [1]. EDF's values serve as guidelines for ethical procedures in the subsidiaries, for the codes of conduct developed in the business lines and certain areas, as well as for fundamental processes such as recruitment (recruitment standards), training (employee awareness initiatives), relations with suppliers and subcontractors (supplier charter, social agreements on subcontracting), as well as individual and collective performance reviews (individual appraisals and managerial reviews).

In 2011, the Group decided to hold a consultation on a new set of ethics standards, which consolidates the previous values into three key tenets: respect, responsibility and solidarity at Group level. After the Group Executive Committee validated the substantive aspects on 19 October 2011, the project was tested during the first half of 2012 on groups of employees in the Group's main companies. The resulting new document was validated by the Group Executive Committee on 26 September 2012 and approved by the Board of Directors Ethics Committee on 8 October 2012.

Since its creation in 2008, the existence of a Group Sustainable Development Committee comprising the Sustainable Development managers from the various subsidiaries such as EDF Energy, EDF Démász, the EDF group subsidiaries in Poland, China and South-East Asia, and Edison has made it possible to harmonise ethics policies. The presentation to this Committee on 23 November 2012 of the new standards is the first stage in a deployment

1. Managing fraud risk is an integral part of the Internal Control Guide; this point is also covered in all entity audits and was included in a general audit in 2012.

that must ensure, over the course of 2013 and in line with the ethics initiatives of each of the Group's companies, that all employees share the ethics commitments and values.

The ethics whistleblowing procedure, which has been established since 2004 within the EDF perimeter, recognises every employee's right to report confidentially, but not anonymously, situations that are contrary to the Group's ethics rules and values. This system allows for matters to be referred to the EDF Group Ethics and Compliance Officer through a secure ethics email system. It was enhanced in 2008 with the introduction of an anonymous, toll-free number, which enables all employees to report any work-related difficulties encountered to external counsellors. On 24 November 2011, the French Data Protection Agency (CNIL) formally approved the EDF whistleblowing system described above, which handles around fifty cases a year.

Since 2010, the EDF Group Ethics and Compliance Advisor's report has been included in the corporate social responsibility management review.

2.1.5.2 Environmental Quality Policy

For many years, the EDF group has taken into account the strategic issues associated with sustainable development, and has made Sustainable Development a fully-fledged component of its overarching strategy. This Group policy was materialised by the signature in 2009 of a document containing a series of shared commitments by senior executives from the Group's principal companies. These commitments provide a framework to facilitate consistency between the initiatives taken by these companies and are built around three priorities:

- combating climate change and protecting biodiversity;
- giving everyone access to energy and developing local action links;
- contributing to the debate on sustainable development.

The EDF Group Sustainable Development Committee coordinates the implementation of these commitments.

This Committee acts as an Environment Board at Group level, and is in charge of steering the Environmental Management System in compliance with ISO 14001, inasmuch as the EDF group has been ISO 14001 certified since 9 April 2002.

The certification scope includes EDF (all its operating entities and most of its functional entities), a number of French subsidiaries (including the RTE and ERDF regulated subsidiaries) as well as numerous international subsidiaries, including EDF Energy. Moreover, some jointly-controlled affiliates are also ISO 14001 certified (but are not currently part of the Group certification scope). In April 2011, the Afnor independent certification body announced the third ISO 14001 renewal for the EDF Group. This certification is valid until 2014. The annual audit in March 2012 noted a stronger response, with a "Corporate Responsibility" approach that gives greater perspective and meaning to environmental action.

The processes implemented within the framework of this certification help strengthen the management of the Group's environmental risks, the regulatory aspect of which is undergoing continual improvement, and gives our stakeholders the assurance of a structured organisation, which is tangible proof that the Group's commitment to environmental protection is an acknowledged reality.

2.1.6 Organisation and steering of the Information Systems (IS)

Each Company and Group entity (Divisions or subsidiaries) has project ownership responsibilities for its specified scope. The Group Information Systems Division is responsible for infrastructures and shared services. Depending on the policies adopted and in liaison with each Division, project management responsibilities are shared between the division concerned and the IT and Telecommunications Shared Services Division, which acts as a cross-functional operator for EDF and the subsidiaries, including the regulated subsidiaries.

The Information System (IS) for the finance perimeter is used by several Group divisions and is of strategic importance in terms of data integrity and application availability. The Finance Information System Division Perimeter is entrusted with the delegated project management. It oversees the day-to-day functioning of applications, manages changes and takes all requisite steps to ensure the security of this IS.

Overall consistency is managed by the Group Information Systems Division, which coordinates the Information Systems function through common policies. New governance for the function was designed pursuant to the Chairman's decision of 19 December 2011 to improve Group steering of support functions. It also provides for a broader role for the Group Information Systems Division in order to guarantee IS synergies and performance for the benefit of business line strategy, in particular for the financial trajectory, security and availability of the IS. This new governance will help with expansion to the international subsidiaries.

Depending on their nature and the scope concerned, strategic decisions and choices are reviewed on a quarter basis either by one of the EDF Committees mentioned in § 2.1.1 or by the IS Strategy Committee, which involves the main Directors and subsidiary Heads and their IS Divisions; other major decisions are taken by a committee of the Heads of Information Systems, France, and by the Information Systems Group Committee, on which the Group's subsidiaries are also represented.

2.1.7 External controls

As is the case for all listed companies, EDF is subject to the regulatory control of the French financial markets authority (*Autorité des Marchés Financiers* – AMF). Due to the French State being a majority shareholder in EDF, the company can also be audited by the National Audit Office, State Auditors, the Inspectorate of Public Finances, the French National Assembly and Senate Commissions for Economic Affairs, and the Public Procurement Contracts Commission.

As required by French law, the Statutory Auditors certify the annual financial statements (parent company and consolidated statements) and carry out a limited review of the Group's summary consolidated half-year financial statements. They also issue an opinion on the annual report by the Chairman of the Board of Directors that is prepared pursuant to Article L.225-37 of the French Commercial Code.

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'Énergie* – CRE) and by the Nuclear Security Authority (*Autorité de Sûreté Nucléaire* – ASN).

The findings of these various external reviews bodies are incorporated into the internal control and audit programmes, in particular.

2.2 Risk management and control

2.2.1 Risk management and control policy

The objectives of the risk control policy are to:

- contribute to securing the Group's strategic and operating trajectory, and in order to do so:
  - identify and grade risks in all areas (operational risks, external risks, strategic risks, including risks that are linked to the consistency of actions with the Group's values, and those linked to protecting the Group's value, assets and reputation), with a view to ensuring a constant increase in the robustness of risk management,
  - ensure the Group's entities are made responsible and accountable for identifying, assessing and handling risks, so that each executive is aware of the risks inherent in his or her activities and implements the action required to control these risks;

- ensure that EDF senior executives and governance bodies have an aggregated and regularly-updated picture of the major risks and their level of control;
- meet the increasing information requirements of external stakeholders with regard to the management of risks across the organisation.

NB: the operating and functional entities are responsible for managing the risks that fall within their scope of activity, under the responsibility of Group Executive Management.

The Group's risk control policy is either implemented directly (for EDF and the controlled subsidiaries), or through governance bodies (for regulated subsidiaries and jointly-controlled affiliates).

This policy is supported by a risk control function that is separate from the risk management functions (supplemented by specific control functions concerning, in particular, financial and energy market risks – see § 2.3.1.1). This function provides, inter alia, a consistent approach to the identification, assessment and management of risks.

2.2.2 Risk mapping process

In accordance with these principles, every half-year, in line with the reporting schedules for the publication of the half-yearly consolidated financial statements, the EDF Group issues consolidated mapping of its major risks for the EDF scope and that of its controlled and jointly-controlled affiliates [1]. This consolidated risk mapping is based on maps established by each operating or functional entity using a common methodology (typology, identification and assessment principles, risk control measures, etc.). Each risk identified must be the subject of a detailed action plan. Responsibility for the major risks falls to a project leader appointed by the Executive Committee.

In-depth discussions concerning the up-dating of risk mapping are regularly held between the Group Risk Control Division (see § 2.1.3.1) and each of the contributing operating or functional entities. These discussions aim to review the relevance of the risk identification, as well as the robustness of the management initiatives taken.

Each half-year, the consolidated risk mapping is submitted for approval by the Executive Committee and, following review by the Audit Committee, is presented to the EDF Board of Directors.

The risk mapping and management initiative is one aspect of the strong complementarity with Group internal control and with internal audit, for which the programme is designed on the basis of, inter alia, the major risks identified. Moreover, the risk mapping process also provides a foundation for a number of other processes: the Insurance Strategy and its implementation, the analysis of risks involved in projects reviewed by EDF's decision-making bodies (the Executive Committee, the Commitments Committee that reports to the Group Executive Committee, etc.); in particular, through risk mapping, the risk control process helps secure the long-term investments and commitments process by monitoring the quality of the risk analysis of projects submitted to the Group Executive Committee. Lastly, the main risks to which the Group is exposed are described in section 4.1 of the 2012 Reference Document, in compliance with the consolidated risk mapping for the Group.

2.2.3 Crisis management policy

The crisis management policy, which was formalised by a decision of the Chairman and CEO in June 2005, defines the organisational and crisis management principles for the EDF scope and that of its controlled subsidiaries, and describes in full the procedure to be implemented. The primary focus of the policy is:

- ensuring the existence of crisis management structures and standing reporting procedures for alerts, in all Group entities;
- verifying the existence of and regularly updating appropriate crisis management procedures, in light of the risks incurred in each EDF division and in the controlled subsidiaries;
- defining the procedures for cooperating with the regulated subsidiaries and – via the Divisions to which they report – with the jointly-controlled affiliates, during crisis periods;
- ensuring that feedback from crises and crisis exercises is systematically taken into account, so as to avoid or limit the consequence of similar future crises;
- verifying the existence of professionalization initiatives for all crisis management stakeholders.

The internal control procedure for the crisis management policy is incorporated into the Group's internal control system. Moreover, a programme of crisis exercises enables the effectiveness of these procedures and their overall consistence to be regularly stress-tested. Finally, the crisis management organisation is regularly readjusted to reflect any significant changes in internal organisation or the external environment, as well as in the light of lessons learned following a major crisis.

2.3 Group control activities

2.3.1 Control procedures relating to the effective functioning of internal processes

2.3.1.1 Sectoral strategies on risk control

2.3.1.1.1 Energy market risk control

Each year the Executive Management approves the entities' hedging strategies, as well as the associated risk limits, which are presented to it by the Corporate Risk Management Division (DCRG) after consolidation at Group level and in accordance with the budget process. These strategies are based on an energy market risk policy implemented by the DCRG and formalised by the Chairman and CEO's decision of 9 December 2005, which defines how these risks should be managed for the EDF scope and that of the controlled subsidiaries, and stipulates all the necessary procedures for its implementation and the control of its application. For the regulated subsidiaries and jointly-controlled 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 or Supervisory Boards and Audit Committees).

This policy describes:

- the governance and measurement system, clearly separating the risk management and risk control responsibilities and enabling the tracking of exposure within the scope defined above;
- the risk control procedures involving EDF Executive Management in the event that 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;
- the function responsible for controlling Energy Market Risks, which has a two-tier organisational structure, with the entities ensuring operating control and the Control department within Corporate Risk Management ensuring the second level of control.

The EDF Audit Committee issues an opinion to the Board of Directors on the Energy Market Risks Policy and the proposed changes to be made to it by the DCRG.

1. *With the exception of Dalkia International.*

2.3.1.1.2 Financial risk control

The Corporate Risk Management Division, among other things, is responsible for controlling interest rate, foreign exchange, liquidity and counterparty risk for EDF and the controlled subsidiaries. This control is exercised through:

- verifying the proper application of financial risk management principles and of the Group's counterparty risk policy, in particular through the regular calculation of risk indicators and the tracking of risk limits;
- executing methodology and organisation control missions within EDF entities and the controlled subsidiaries;
- controlling market positions in EDF's trading room, which is responsible for cash management. For these activities, a standing system of indicators and risk limits, which is verified daily, is used to track and control financial risk exposure. The Finance and Investments Division, the Head of the Trading Room and the Financial Risk Control Division are responsible for this and are expected to take immediate action if a limit is exceeded. The "Markets" committee, which meets, checks and reviews monthly, as required, requests for exemptions to the framework and investment requests for new products;
- controlling "Dedicated Assets" portfolio positions (within the Corporate Finance Division), for which management responsibility is assumed by the Asset Management Division. A specific framework has been implemented by the Corporate Risk Management Division, which defines the acceptable risk limits. The Operations Management Committee chaired by the Senior Vice President, Finance and Investments is the steering organisation for the management and monitoring of the financial risk associated with this portfolio.

In order to guarantee the independence of the financial risk control structure vis-à-vis the activities responsible for managing these risks, the Financial Risk Control department is attached to the Group Corporate Risk Management Division. This department has a functional link with the Financing and Investments Division.

2.3.1.1.3 Control of non-financial risks

Within the DCRG, EDF has set up a department that is specialised in the assessment of the non-financial risks associated with starting business relationships with third parties (consultants, suppliers, manufacturing partners, etc., that are identified as being sensitive). Before starting a business relationship, formalised and auditable controls are performed with a view to preventing any risk of harm to reputation.

2.3.1.2 Specific controls

2.3.1.2.1 Procedure for approving commitments

In accordance with the Group's «commitments process», for which the framework is provided by a procedure that was updated on 28 September 2011, the Commitments Committee, which reports to the Group Executive Committee, reviews potential Group commitments, excluding regulated subsidiaries and jointly-controlled affiliates, once the Executive Committee has adopted a favourable position in principle with respect to the commitment concerned. This review covers, in particular:

- investment, disinvestment, merger and acquisition projects in excess of €50 million [1];
- expenditure on supplies, works or services for an amount in excess of €200 million;
- long-term purchase or sale contracts that exceed annual limits of 5 TWh for electricity, 10 TWh for gas and €150 million for coal, fuel oil, CO_2 emission credits and allowances;
- the multi-year supply programme for reactors and back-end nuclear fuel cycle services;
- operations to transfer obligations regarding decommissioning or the back-end of the nuclear fuel cycle.

Group Executive Committee meetings are systematically preceded by a meeting attended by experts at corporate level (Group Risk Management Division, Legal Affairs Division, Corporate Finance Division, Upstream-Downstream Optimization & Trading Division, Sustainable Development Division, Strategy Division, Procurements Division, etc.) and project managers in order to verify the exhaustiveness and depth of the risk analysis on the projects submitted. This work is based on methodology standards for the analysis of the risks involved in development projects, which take into account the full impact of a project.

Planned commitments are then reviewed by the Board of Directors, as described in § 1.2.4.

The "Investments Steering" Guide states that planned commitments below the threshold for referring matters to the Group Executive Committee will be reviewed by the governance bodies that are specific to each entity.

2.3.1.2.2 Information Systems (IS) control

Organisation of the internal control of the Information Systems function

The internal control system for the Information Systems function is part of the Group's Internal Control Policy (that contains proposed control area standards, which the operating entities adapt to their specificities) and covers the implementation of the function's policies. These policies address, in particular, infrastructures and shared services, information systems security, information systems project management, information systems risk management and compliance with the French Data Protection Act.

For the record, EDF's Information Systems internal control referencing system is based on the COBIT (Control Objectives for Information and related Technology) external referencing system.

The Group Information Systems Division has coordinated the internal control and coverage of risks that are specific to Information Systems issues since 2009 at three levels within the function's organisation: a network of information systems internal control officers, a network of the risk officers and the Committee of the Heads of Information Systems who represent the divisions. In 2011, the interlinking of the risk officers', internal control and Information Systems networks made it possible to achieve even better coordination between risk coverage and internal control for EDF. These networks will be progressively extended to include international subsidiaries.

Moreover, in the field of information systems, the IS function has contributed to the standards for fraud detection tests.

Actions in the field of IS security

The EDF group's Information Systems Security Policy structures the information system security policies and organisation for the Group's IS. For EDF, the adjustment of these policies, as well as the level of security, are monitored monthly by a security Committee, which is chaired by the Group Information Systems Director, and brings together the Heads of Information Systems Security from all the entities within the EDF scope. ERDF is associated with this initiative. The Information Systems Strategy Committee reviews, as required, in consultation with the Heads of the Corporate Risk Management Division and the Security Division, adjustments to the Group IS Security policy that are found to be necessary, without replacing the existing technical bodies. This ensures that a consistent, strategic vision is shared of IS security and IS key issues in terms of system availability and continuity, information and processing integrity, and the protection of sensitive information.

Key points for 2012 were:

- The implementation of a «Business Continuity Plan» exercise after finalising the geographical relocation of the data centres;
- The updating of three security directives (management of third parties, business continuation and management of security incidents for EDF-SA);

1. *Excluding financial investments and disinvestments linked to the management of dedicated assets and pension assets, for which the governance is specific. See section 1.4.2.*

- A Review Board for Service Outsourcing Requests being set up within the Group IS Division. This Board is tasked with performing security analyses on outsourced services;
- A decision on digital exchanges between Group entities.

2.3.1.2.3 Administration and oversight of subsidiaries

Each EDF subsidiary or shareholding (with the exception of the regulated subsidiaries) reports to a Senior Executive who is a member of the Executive Committee or to his or her delegated representative. These Senior Executives, or their representatives, put forward the directors who will represent EDF on the governance bodies of these subsidiaries or shareholdings, then send the directors concerned an assignment letter and a letter outlining their objectives.

The Directors and Companies Delegation, which was started in 2002, pays particular attention to:

- updates to company reporting line mapping, in the light of decisions taken by the Executive Management concerned;
- 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 governance bodies of subsidiaries and shareholdings, in light of the strategy defined by the Senior Executives to whom they report;
- compliance with the appointment process for directors, prior management agreement for nomination (conformity with the "target composition profile", control over the number of offices, the approval of the proposed director's line management, etc.);
- the professional standards of new directors (induction training seminar for new directors with the support of the Corporate University, information via the intranet site for the directors community and on-going vocational training via Board Directors' workshops).

2.3.1.3 Other control policies

In October 2003, the Chairman and CEO approved a health and safety policy, which was completed on 1 February 2012 through a decision, which, inter alia, provides for preventive safety to be included in manager training and for a quarterly review to be performed at an Executive Committee meeting of the results and actions implemented within the Group in this area.

The EDF Group's new insurance policy, which was presented to the Board of Directors in 2012, then approved and circulated in the Group, will be implemented in 2013. This new policy, which is a genuine integration tool, increases the insurance scope by covering all the Group's assignments and scope. Its circulation will be accompanied by and Insurance Procedure Handbook, which is currently being finalised, in order to facilitate the policy's implementation. Since that date, whenever there is any significant change, a status report is presented to the Audit Committee on the scope and the cost of adequately insuring EDF's risks or transferring them to the financial markets. In 2011, the Strategic Insurance Guidelines Committee ("COSA") was set up, which is chaired by the Group Senior Executive Vice President, Finance, who stimulates discussions between business lines and investors on changes to and methods for implementing the Insurance Strategy, in particular the main characteristics of the coverage schemes for insurance risks.

2.3.2 Internal control procedures relating to the reliability of accounting and financial information

2.3.2.1 AMF Reference Framework

The section of the Internal Control Manual that covers control over accounting and financial information was completely restructured in 2011 in order to conform to the AMF Reference Framework, as revised in 2010.

2.3.2.2 Group accounting standards and principles

The accounting standards used by the EDF Group [1] conform to the international accounting standards as published by the International Accounting Standards Board (IASB), and approved by the European Union, which have been applicable since 31 December 2012. These international standards comprise IAS (International Accounting Standards), IFRS (International Financial Reporting Standards) and the interpretations (SIC and IFRIC). The accounting rules and methods are described in the Group manual on accounting principles and summarised in the notes to the consolidated financial statements.

A network of correspondents in the Operating Divisions and subsidiaries facilitates sharing instructions and the consistent accounting implementation from one Group entity to another.

2.3.2.3 Procedures for preparing and controlling the consolidated financial statements

The Consolidation Department (part of the Accounts Consolidation Division) prepares the consolidated financial statements based on data input locally by each entity (entities of the parent company and subsidiaries), in accordance with Group standards and instructions, using a single chart of accounts.

The half-yearly consolidated financial statements are presented to the Audit Committee then to the Board of Directors, and closed off on 30 June of each fiscal year.

The annual consolidated financial statements are presented to the Audit Committee, then closed off on 31 December of the fiscal year by the EDF Board of Directors and approved by the general meeting.

Each time the half-yearly and annual financial statements are closed off, instructions are issued that specify all the deliverables expected from each person who plays a role in the publication of the financial statements, and in preparing the management report and the reference document used for annual closings. Meetings between the EDF divisions and the subsidiaries are used to prepare for each half-yearly closing, anticipate any changes in certain forms of accounting treatment and ensure that the financial and accounting information published is reliable. Subsequent analysis of the conditions under which the deliverables were produced (compliance with deadlines, quality of information, etc.) allows for a steady improvement in the process for preparing and analysing the consolidated financial statements.

A monthly reporting package containing information on the balance sheet and income statement accounts was set up in 2011. It made it possible to anticipate the recognition of complex operations and helped make balance sheet flows more reliable.

The use of a financial language that is shared by Accounting and Management Control contributes to the consistency of the Group's steering. This common language is one of the ways of ensuring continuity between:

- actual data obtained from accounting and the data produced during the forecasting phases;
- external financial communication and internal steering.

This common language facilitates dialogue and cooperation between these two functions at all levels of the organisation and helps ensure the exchange of information between the players and the quality of the information produced.

2.3.2.4 Procedures for preparing and controlling the parent company financial statements

The parent company financial statements are prepared on a half-yearly and annual basis by the Parent Company Accounts Department (part of the Accounts Consolidation Division).

EDF's transactional accounting (excluding the Financing and Investments Division, the Nuclear Fuel Department, Island Energy Systems and the Senior Executive Development Division for payroll accounting) is entrusted to an

1. *The scope of the Group's consolidated financial statements is detailed in the notes to the consolidated financial statements (cf. chapter 20 of the present reference document).*

"Accounting" Shared Services Centre within the Shared Services Division. The handling of transactional accounting is organised by process. "Governance pacts" establish the respective responsibilities of the operating branches and divisions, the "Accounting" Shared Services Centre and the Accounting Consolidation Department.

Each operating branch and division Head makes a formalised annual commitment to respecting the internal control rules and ensuring the reliability of the financial information for which he or she is responsible via a letter of commitment addressed to the Head of Accounting.

The accounting internal control system is incorporated into the Group internal control system. EDF uses benchmark indicators, which make it possible to measure the extent to which certain aspects of accounting information are compliant, by process.

2.3.3 Internal control procedures relating to compliance with laws and regulations

The Legal Affairs Division has a remit to track changes in the law and regulations. It issues warnings and raises awareness within the relevant Divisions in light of any changes that are liable to impact the Group.

Pursuant to a joint decision of 1 June 2007, the Legal Affairs and Corporate Audit Divisions adopted an action plan aimed at formalising the role of Legal Affairs in defining the control objectives mandated in the different EDF entities, so that they can be taken into account in the entities' own internal control plans. These control objectives aim to ensure that these entities:

- inform the Legal Affairs Division of the regulatory areas that particularly concern them, to ensure that the Division can perform its monitoring assignment optimally;
- systematically involve the Legal Affairs Division as early as possible in matters involving significant strategic issues and legal risks;
- ensure that their delegations of power effectively reflect their organisation;
- identify their needs in terms of legal awareness within the fields that concern them, including crosscutting needs, and notify them to the Legal Affairs Division;
- ensure that individuals granted delegations of powers are aware of the scope and the consequences of their delegation.

2.3.3.1 Regulations relating to industrial operations

Numerous control procedures exist in the field of industrial operations, in particular for nuclear facilities.

The nuclear sector regulations in force are specific to each country where facilities are located. External controls are organised by the relevant national authorities (the Nuclear Safety Authority in France (ASN), the Nuclear Directorate within the Health and Safety Executive, Office for Nuclear Generation in the United Kingdom, the Nuclear Regulatory Commission in the United States, the National Nuclear Safety Administration in China, etc.).

Within EDF, this responsibility falls to the following executives and/or entities:

- the Nuclear Safety Council, which is chaired by the EDF Group Chairman, meets several times a year and in February reviews the annual "Nuclear Safety and Radioprotection" report;
- the General Inspector for nuclear safety and radioprotection (IGSNR) who, on behalf of the Chairman, ensures that all aspects of safety and radiation protection in the nuclear facilities for which EDF has operating responsibility are fully taken into account and whose annual report is made public;
- the Nuclear Inspectorate, a department that reports directly to the Senior Vice President, Nuclear Operations, and the Audit Assessment Taskforce, which functionally reports to the Senior Vice President, Nuclear Engineering, the verification work of which makes it possible to regularly assess the level of safety in all the various Nuclear Operations and Nuclear Engineering entities and their work;
- The Audit function carries out several dozen audits per year in the nuclear field (engineering, fuels and operations).

The Law of 28 June 2006, as amended by NOME law on the New Electricity Market Organisation of 7 December 2010, and its implementation regulations (decree of 23 February 2007 and Order of 21 March 2007) on securing financing for nuclear expenses, require the Company to produce a report on the procedures and systems used to assess the expenses linked to the sustainable management of radioactive matter and waste. This report must specify the methods applied to calculate the related provisions and the choices made for the composition and management of the assets allocated to covering the provisions.

Since June 2007, and in accordance with the legislative and regulatory framework, EDF files a report with the administrative authority every three years and sends an update letter yearly. The second tri-annual report was finalised in June 2010 and updated in 2011 and 2012. These reports and update letters are given an in-depth review by the Nuclear Commitments Monitoring Committee, which then reports to the EDF Board of Directors before sending the reports and letters to the administrative authority. The report on internal control that is appended to the updating letter was deliberated by the Board of Directors.

In the other operations-related areas (such as, for example, the monitoring of pressure vessels and dam surveillance), each entity is responsible for defining and implementing the appropriate control procedures.

Immediately following the Fukushima accident of 11 March 2011, EDF acted responsibly in its capacity as a nuclear operator by applying the lessons learned to its own facilities the same month. The 19 site Complementary Safety Evaluation reports (those for the Flamanville and Penly plants also have an "EPR" section) show the high safety levels at all of EDF's nuclear facilities in terms of the threats highlighted by the Fukushima incident, (earthquake and floods). These reports propose additional countermeasures that would make it possible to increase the fleet's robustness to situations for which the levels go well beyond those under consideration, and that would exceed current nuclear safety requirements.

The ASN notified its findings to the French government in a report dated 3 January 2012, which contains an opinion (no. 2012-AV-0139) in which the ASN states, in particular:

"Following the complementary safety assessments of the priority nuclear facilities, ASN considers that the facilities examined offer a sufficient level of safety for it not to request the immediate shutdown of any of them. At the same time, ASN considers that for the continuation of their operation, an increase in the robustness of the facilities to extreme situations, beyond their existing safety margins, is necessary, as rapidly as possible."

In 2012 the ASN issued a set of technical requirements for each site, with deadlines for the complementary measures to be implemented that are consistent with this opinion.

The ECS reports on dismantled sites were provided to the ASN in mid-September 2012, as planned.

As part of the Peer Reviews organised by the ENSREG (European Nuclear Safety Regulators Group) following the Fukushima accident, a team of auditors, with ASN representatives, visited the Tricastin site in order to assess the site section of the ECS report on this site. Additional ENSREG visits were then held on the Chooz, Cattenom and Fessenheim sites. These Peer Reviews confirmed the relevance of the initiatives EDF has adopted or will adopt in order to improve the robustness of its facilities.

2.3.3.2 Other regulations

Control procedures are also used for the application of labour and employment regulations.

The implementation of management systems, particularly with regard to environmental considerations (see § 2.1.5.2) and Health and Safety, has enabled tighter control of the application of regulations and compliance with any regulatory changes to be foreseen.

2.3.4 Internal control procedures relating to the application of Executive Management instructions and policies

As part of the deployment of internal control within the Group, the monitoring of the effective implementation of major decisions and policies is taken into account by their inclusion in the Internal Control Reference Manual. Moreover, audits may be included in the corporate audit programme in order to check the correct implementation of these decisions and policies, and that the targets set within this framework are attained.

2.4 Information communication and circulation

In addition to the communication and reporting initiatives outlined within this report, the following specific initiatives are noteworthy:

- Since EDF shares were listed for trading in 2005, EDF has established procedures that aim to provide a framework for and ensure the reliability of EDF financial disclosure processes and content, as well as to prevent market abuse. Accordingly, a procedure has been defined to organise the respective roles within the Company with regard to the preparation, validation and dissemination of financial disclosure data. A system for validating Financial Information, designed to ensure the validation and consistency of EDF's different financial communication sources, to review and validate the contents of all financial communication channels has been set up. This Committee comprises representatives from the Corporate Finance, Communication and Legal Affairs Divisions. Furthermore, since 2006 the EDF group has adopted principles and rules that are applicable to transactions involving EDF securities or those of the EDF group's listed subsidiaries. These rules have been compiled in an Ethics Code that was updated in March 2011, in order to take into account the AMF recommendations of November 2010, and was presented to the EDF Executive Committee on 4 April 2011. In parallel with the publication of this Code, initiatives to raise awareness of stock market rules have been taken vis-à-vis Group employees', in particular concerning the precautions and obligations associated with holding inside information and the blackout periods during which senior executives and certain employees who are party to insider information may not trade in the Company's shares.
- The Code of Conduct: compliance with the codes of conduct for the regulated subsidiaries is monitored annually by these subsidiaries, and verified by the French Energy Regulation Commission, which publishes the results of its checks in its annual report.

This report was prepared by a working group coordinated by the EDF Corporate Audit Division, which includes representatives of the Legal Affairs, Corporate Risk Management and Corporate Finance Divisions, as well as the General Secretary to the Board of Directors. Various contributors, such as the Ethics and Compliance Standards Delegation, the Information Systems Division, the Directors and Companies Delegation, the Sustainable Development Division and the Investors and Markets Division were also involved. This report was successively reviewed by the Group General Secretary (4 February 2013), the Financial Disclosure Committee (29 January 2013) and the Audit Committee (11 February 2013) before being approved by the Board of Directors' meeting of 13 February 2013, in accordance with Article L. 225-37 of the French Commercial Code.

Paris, 13 February 2013.

The Chairman and CEO of EDF,

Henri Proglio

Statutory Auditors' Report, prepared in accordance with Article L. 225-235 of the French Commercial Code ("*Code de commerce*"), on the Report prepared by the Chairman of the Board of Directors of Électricité de France SA

This is a free translation into English of the statutory auditors' report issued in French prepared in accordance with Article L.225-235 of French company law on the report prepared by the Chairman of the Board of Directors on the internal control and risk management procedures relating to the preparation and processing of accounting and financial information issued in French and is provided solely for the convenience of English speaking users.

This report should be read in conjunction and construed in accordance with French law and the relevant professional standards applicable in France.

Year ended 31 December 2012

To the shareholders,

In our capacity as Statutory Auditors of Électricité de France SA ("the Company"), and in accordance with Article L.225-235 of the French Commercial Code ("Code de commerce"), we hereby report on the Report prepared by the Chairman of your Company in accordance with Article L.225-37 of the French Commercial Code for the year ended 31 December 2012.

It is the Chairman's responsibility to prepare, and submit to the Board of Directors for approval, a report on the internal control and risk management procedures implemented by the Company and containing the other disclosures required by Article L.225-37 of the French Commercial Code particularly in terms of the corporate governance measures.

It is our responsibility:

- to report to you on the information contained in the Chairman's Report in respect of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information, and
- to attest that this Report contains the other disclosures required by Article L.225-37 of the French Commercial Code, it being specified that we are not responsible for verifying the fairness of these disclosures.

We conducted our work in accordance with professional standards applicable in France.

Information on the internal control and risk management procedures relating to the preparation and processing of accounting and financial information

The professional standards require that we perform the necessary procedures to assess the fairness of the information provided in the Chairman's Report in respect of the internal control and risk management 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 and risk management procedures relating to the preparation and processing of the accounting and financial information on which the information presented in the Chairman's Report is based and existing documentation;

obtaining an understanding of the work involved in the preparation of this information and the 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 Chairman's Report.

On the basis of our work, we have nothing to report on the information in respect of the Company's internal control and risk management procedures relating to the preparation and processing of accounting and financial information contained in the Report prepared by the Chairman of the Board in accordance with Article L.225-37 of the French Commercial Code.

Other disclosures

We hereby attest that the Chairman's Report includes the other disclosures required by Article L.225-37 of the French Commercial Code.

Paris La Défense and Neuilly-sur-Seine, 13 February 2013

The Statutory Auditors

KPMG Audit Department of KPMG SA		Deloitte & Associés	
Bernard Cattenoz	Jacques-François Lethu	Alain Pons	Patrick E. Suissa

AVRIL 2013

LE GROUPE EDF EST CERTIFIÉ ISO 14001

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