



# **HALF-YEAR FINANCIAL REPORT**

## **JUNE 30, 2011**

This Half-year financial report contains information relating to the markets in which the EDF group is present. This information has been taken from surveys carried out by external sources. Considering the very rapid changes that characterize the energy sector in France and in the world, it is possible that this information could prove to be erroneous or outdated. Developments in the Group's activities could consequently differ from those described in this Half-year financial report and the declarations and information appearing in this report could prove to be erroneous.

The forward-looking statements contained in this Half-year financial report, notably in section 9 ("Financial Outlook for 2011") of the Half-year management report, are based on assumptions and estimates that could evolve or be impacted by risks, uncertainties (relating particularly to the economic, financial, competitive, regulatory and weather environment) or other factors that may cause the future results, performances and achievements of the Group to differ significantly from the objectives expressed and suggested. These factors may include changes in the economic and commercial environment, regulations, and the factors set forth in section 4.1 of the EDF group's 2010 reference document ("Risk Factors").

Pursuant to European and French legislation, the entities responsible for the transmission and distribution of electricity within the EDF group may not communicate certain information gathered in the course of their activities to the other entities of the Group, including its Management. Similarly, certain data specific to generation and supply activities may not be communicated to the entities responsible for transmission and distribution. This Half-year financial report has been prepared by the EDF group in compliance with these rules.

## Contents of the Half-year financial report

- 1 - Certification by the person responsible for the Half-year financial report
- 2 - Half-year management report at June 30, 2010
- 3 - Condensed consolidated half-year financial statements at June 30, 2011
- 4 - Statutory Auditors' Review Report on the first half-year financial information for 2011 (January 1 to June 30, 2011)

**Certification by the person responsible for the Half-year financial report**

I certify that, to the best of my knowledge, the condensed consolidated financial statements at June 30, 2011 are prepared in accordance with the applicable accounting standards and give a true and fair view of the assets and liabilities, financial position and income of the company and of all the companies included in the scope of consolidation, and that the attached Half-year management report presents a true and fair view of the important events of the first six months of the financial year and their impact on the financial statements, the main related party transactions and a description of the main risks and uncertainties for the remaining six months of the financial year.

Paris, July 28, 2011  
Henri Proglio  
Chairman and CEO of EDF



BOARD OF DIRECTORS' MEETING, JULY 28, 2011

# **HALF-YEAR MANAGEMENT REPORT**

## **JUNE 30, 2011**

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# 1 Key figures

Pursuant to European regulation 1606/2002 of July 19, 2002 on the adoption of international accounting standards, the EDF group's condensed consolidated financial statements at June 30, 2011 are prepared using the presentation, recognition and measurement rules prescribed by the international accounting standards published by the IASB and approved by the European Union for application at June 30, 2011. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and interpretations issued by the SIC and IFRIC.

The accounting and valuation methods applied by the Group are presented in note 1 to the condensed consolidated half-year financial statements at June 30, 2011.

## Restatements

The figures presented in this document are taken from the EDF group's condensed consolidated half-year financial statements at June 30, 2011.

In compliance with accounting principles, the previously published figures for first-half 2010 have been restated for the effect of the following:

- application of IFRS 5, "Non-current assets held for sale and discontinued operations", and
- the change in presentation of SPE's energy purchase and sales optimization, which has no impact on EBITDA.

## Adjustments

For analysis of Group results, organic growth in 2011 is measured against adjusted 2010 figures, i.e. on a comparable scope of consolidation that does not include RTE, EnBW, the networks and Eggborough plant in the UK.

The table below shows details of restated and adjusted figures.

In millions of Euros	H1 2010 (restated)	Impact of equity method for RTE	Impact of sale of EnBW <sup>(1)</sup>	Impact of disposals in the UK <sup>(1)</sup>	Total impacts	H1 2010 (adjusted)
Sales	33,538	(119)	-	(779)	(898)	32,640
Operating profit before depreciation and amortization (EBITDA)	9,557	(791)	-	(625)	(1,416)	8,141
Operating profit (EBIT)	4,685	(493)	-	(399)	(892)	3,793
Income before taxes of consolidated companies <sup>(2)</sup>	2,458	(328)	14	(303)	(617)	1,841
EDF net income	1,659	-	(359)	(222)	(581)	1,078
Net income excluding non- recurring items <sup>(3)</sup>	2,969	-	(387)	(222)	(609)	2,360

<sup>(1)</sup> Including interest on net proceeds of disposals, set by convention at 1% before taxes.

<sup>(2)</sup> The income before taxes of consolidated companies corresponds to the EDF group's net income before income taxes, the share in net income of associates, net income attributable to non-controlling interests and the net income of discontinued operations.

<sup>(3)</sup> 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 3.9).

Key figures at June 30, 2011 are shown in the following table. Variations in value and percentage are calculated with reference to adjusted first-half 2010 figures.

### Extract from the consolidated income statements

In millions of Euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)	Organic growth (%)
Sales	33,464	32,640	+824	+2.5	+2.7
Operating profit before depreciation and amortization (EBITDA)	8,616	8,141	+475	+5.8	+6.2
Operating profit (EBIT)	5,256	3,793	+1,463	+38.6	
Income before taxes of consolidated companies	3,446	1,841	+1,605	+87.2	
EDF net income	2,554	1,078	+1,476	+136.9	
Net income excluding non-recurring items	2,629	2,360	+269	+11.4	+12.5

### Operating cash flow

In millions of Euros	H1 2011	H1 2010 (restated)	Variation	Variation (%)
Operating cash flow <sup>(1)</sup>	5,965	6,329	-364	-5.8

*(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, adjusted for the impact of non-recurring items, less net financial expenses disbursed and income taxes paid.*

Operating cash flow at June 30, 2011 showed organic growth of +5.6% compared to adjusted operating cash flow at June 30, 2010.

### Indebtedness

In millions of Euros	June 30, 2011	December 31, 2010	Variation	Variation (%)
Net indebtedness	29,206	34,389	-5,183	-15.1
Equity (EDF's share)	31,317	31,317	-	-
Net indebtedness/EBITDA	<b>2.0<sup>(1)</sup></b>	<b>2.2<sup>(2)</sup></b>		

*(1) The ratio at June 30, 2011 is calculated based on cumulative EBITDA for the second half of 2010 and the first half of 2011.*

*(2) 2010 ratio using a numerator and denominator based on a comparable scope of consolidation: in the denominator, 2010 EBITDA has been adjusted for UK networks (10 months) and RTE EBITDA (12 months); the numerator, is adjusted for EnBW.*

## 2 Economic environment and significant events for the first half-year of 2011

### 2.1 Economic environment

#### 2.1.1 Trends in market prices for electricity and the principal energy sources

During the first half of 2011, energy prices in Europe were marked by two major external events that had worldwide repercussions: the political tensions in North Africa throughout the half-year, and the nuclear accident at Fukushima in March.

##### 2.1.1.1 Spot electricity prices in France, the United Kingdom, Italy and Germany<sup>1</sup>

	France	UK	Italy	Germany
Average baseload price for H1 2011 (€/MWh)	51.0	56.9	67.4	52.7
Variation in average baseload prices, H1 2011/2010	+13.2%	+31.2%	+9.7%	+27.8%
Average peakload price for H1 2011 (€/MWh)	62.1	63.0	76.1	62.2
Variation in average peakload prices, H1 2011/2010	+10.6%	+26.4%	+5.1%	+21.4%

In **France**, spot electricity prices rose due to the increase in coal prices, despite a relatively mild late winter.

In the **United Kingdom** and **Italy**, the upturn in gas prices led to higher spot electricity prices, resulting from an energy mix that emphasised Combined Cycle Gas plants.

In **Germany**, prices also registered a noticeable increase driven by the rise in fuel prices and greater use of fossil-fired and oil-fired generation facilities following the moratorium on nuclear power.

##### 2.1.1.2 Forward electricity prices in France, the United Kingdom and Germany<sup>2</sup>

	France	United Kingdom	Germany
Average baseload price for H1 2011 (€/MWh)	57.3	62.9	56.2
Average variation in baseload prices, H1 2011/2010	+9.0%	+30.2%	+12.6%
Forward baseload price at June 30, 2011	55.7	63.3	56.7
Average peakload price for H1 2011 (€/MWh)	71.7	70.8	69.0
Average variation in peakload prices, H1 2011/2010	-0.4%	+28.9%	+4.3%
Forward peakload price at June 30, 2011	71.0	71.6	70.8

European annual contract baseload prices rose on average compared to the first half of 2010, except in the **United Kingdom** where the increase in gas prices led to an increase of some 30% in forward electricity prices.

<sup>1</sup> *France and Germany*: Average previous day EPEX 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

<sup>2</sup> *France and Germany*: Average year-ahead EPD price;  
*United Kingdom*: Average ICE annual contract prices, April 2011 then April 2012 (in the UK, annual contract deliveries take place from April 1 to March 31).

In **France**, the 2011 annual contract baseload price settled at an average level that was 9.0% higher than in the first half of 2010. Early in the year, fossil fuel price trends caused a proportional rise in the costs of fossil-fired generation plants, resulting in higher French annual contract prices.

In mid-March, the accident at Fukushima, followed by the German moratorium and reconsideration of nuclear power in certain European countries, reshaped the future use patterns of the nuclear generation fleet. Forward electricity prices in **France** rose abruptly by approximately €5/MWh, in response to the prospects of structural change in the European generation fleet and rising fuel prices. A trend towards price consolidation was observed until the end of May, then in June the base annual contract price declined in the wake of CO<sub>2</sub> and fuel prices.

In **Germany**, the base annual contract price was higher than in the same period of 2010. First-half 2011 German prices were on average €1.1/MWh lower than French prices, compared to a €2.6/MWh differential in first-half 2010. Germany's successive announcements that nuclear plants would be shut down first for three months, then permanently, led to higher price rises than in France, and the spread narrowed accordingly.

From early June the price differential between the German and French annual contracts actually reversed. Following the German government's decision at the end of May to close down eight of the country's nuclear power plants permanently the spread was inverted, as French nuclear availability had been high since the beginning of the year. German prices remained above French prices throughout the month of June.

In the **United Kingdom**, the 2011 April Ahead baseload contract price followed the same pattern as forward gas prices.

### 2.1.1.3 CO<sub>2</sub> emission rights prices <sup>3</sup>

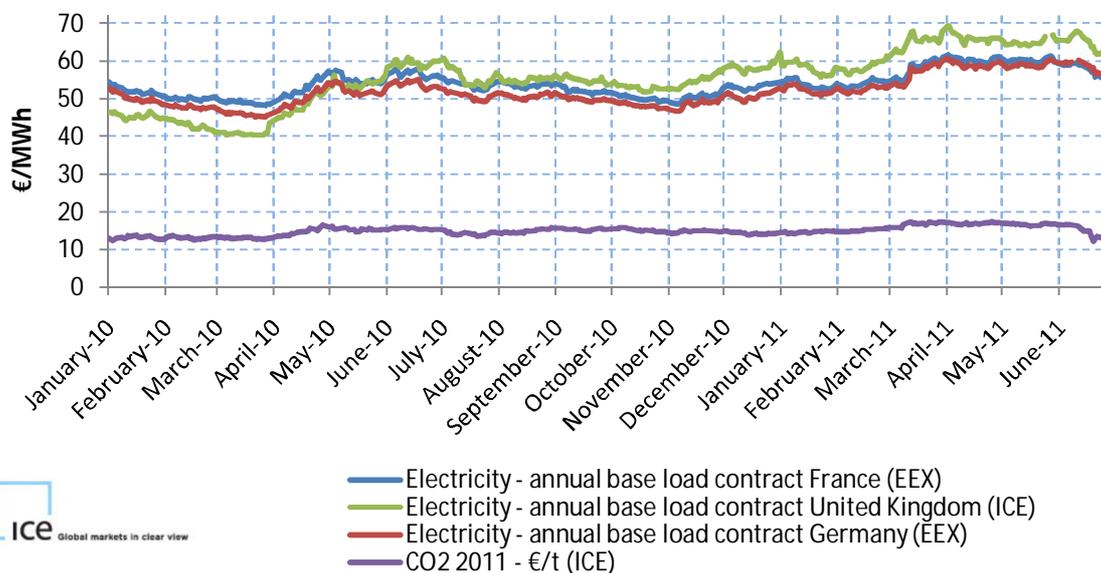
The price of CO<sub>2</sub> emission rights under Phase II (2008-2012) for delivery in December 2011 stood at €15.9/t in the first half of 2011, up by more than 12.5% from its first-half 2010 levels. This is because the closures of several German nuclear plants will lead to more extensive use of coal-fired and gas-fired plants, and therefore higher CO<sub>2</sub> emissions in Europe.

However, in June the European Commission proposed a directive to encourage member states to meet the target 20% improvement in energy efficiency between 2008 and 2020, given that the current pace of change will only achieve half this target. The proposed measures are designed to reduce energy consumption, and therefore CO<sub>2</sub> emissions. As the decision was not followed by a proposed cut in allocated quotas, the price of CO<sub>2</sub> emission rights fell in the second part of June to end the half-year at €13.5/t.

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<sup>3</sup> Average ICE prices for the annual contract of Phase II (2008-2012).

## Forward electricity prices in France, the United Kingdom and Germany and CO<sub>2</sub> emission rights prices (Phase II, 2008-2012)



### 2.1.1.4 Fossil fuel prices <sup>4</sup>

	Coal (\$/t)	Oil (\$/bl)	Natural gas (p/th)
Average price for H1 2011	125.6	111.4	64.9
Average price variation, H1 2011/2010	+31%	+42.2%	+48.0%
Highest price in H1 2011	134.5	126.7	71.8
Lowest price in H1 2011	114.8	93.3	56.1
Closing price, H1 2010	101.5	75.0	53.0
Closing price, H1 2011	128.6	112.5	68.3

Forward prices for coal saw an average rise from the first half of 2010, driven by forecasts of greater German demand for coal (following the decision to close several nuclear plants ahead of schedule), and growing demand in Asia.

Oil prices continued to move upwards during the first half of 2011 against a background of political unrest in North Africa, especially Libya, reaching a peak of \$126.7/bl in early April. But a sharp downturn ensued, and the closing price for the month of June was \$112.5/bl. Market players' apprehensions of slower growth in demand, the Euro's decline against the dollar due to sovereign debt problems in Europe, and finally the International Energy Agency's decision to release 60 million barrels from its strategic reserves drove the price of a barrel of Brent oil down during the second quarter.

<sup>4</sup> Coal: Average ICE prices for delivery in Europe (CIF ARA) for the next calendar year (\$/t);

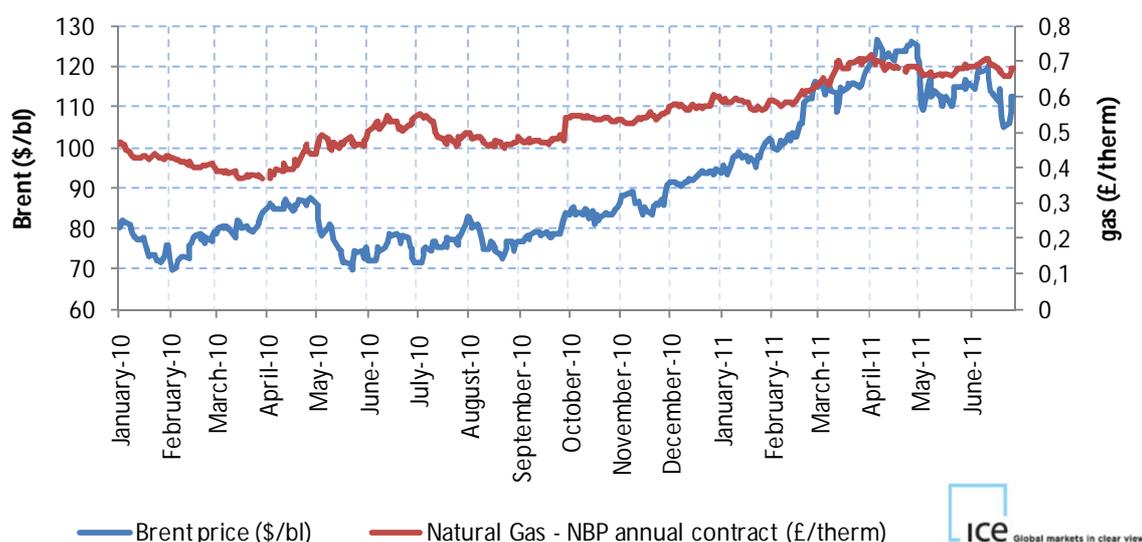
Oil: Brent first reference crude oil barrel, IPE index (front month) (\$/barrel);

Natural gas: Average ICE OTC prices, for delivery starting from October of the following year for the UK (NBP) (p/therm).

Natural gas prices under the **United Kingdom's** annual contract rose significantly over the first quarter of the year compared to the same period of 2010. From February, market players feared that supply would fall if the Libyan conflict spread to other gas-producing countries. Subsequently, the aftermath of the Fukushima accident suggested that a large amount of LNG (liquefied natural gas) would be diverted to Japan, and that the demand for gas would be higher in Europe. In the second quarter, large-scale LNG supplies in the United Kingdom, combined with a more relaxed situation in the short term that allowed significant injections into inventories, led to a downward trend in annual contract prices.

Meanwhile, spot prices in **Italy**<sup>5</sup> followed the rise observed in UK prices, although the increase was attenuated by foreign exchange effects. This upward movement was occasionally amplified by the unrest in Libya, due to the interconnection between the two countries.

### Natural gas and oil prices



### 2.1.2 Electricity<sup>6</sup> and gas consumption

Overall electricity consumption in **France** during the first half of 2011 was 5.6% lower than in first-half 2010. This difference is mostly explained by higher-than-normal temperatures, especially in the spring, particularly as they were well above the temperatures of 2010 which is considered one of the two coolest years of the past two decades along with 1996. The lower volumes delivered in 2011 to Eurodif also played a smaller role in the difference compared to first-half 2010 (-2.4TWh).

Estimated domestic electricity consumption in first-half 2011 was down by 4.2% in the **United Kingdom** and up by 1.6% in **Italy**<sup>7</sup> compared to first-half 2010.

Consumption of natural gas in **France** fell sharply (-14%) over the first half of 2011 compared to the same period of 2010, primarily because temperatures were noticeably higher than in first-half 2010, when they had been below normal seasonal levels. After adjustment for weather effects, consumption was stable. However, this stability masks contrasting developments in different sectors: consumption by large industrial customers and electricity plants rose

<sup>5</sup> Source: EDF Trading.

<sup>6</sup> France: Data provided by RTE, unadjusted for weather effects.

<sup>7</sup> For countries other than France, estimates are supplied by local EDF subsidiaries.

with the beginnings of an economic recovery, whereas consumption by residential customers, the service sector and small industrial customers connected to the distribution network was down due to an unfavorable gas price context.

### 2.1.3 Electricity and natural gas sales tariffs

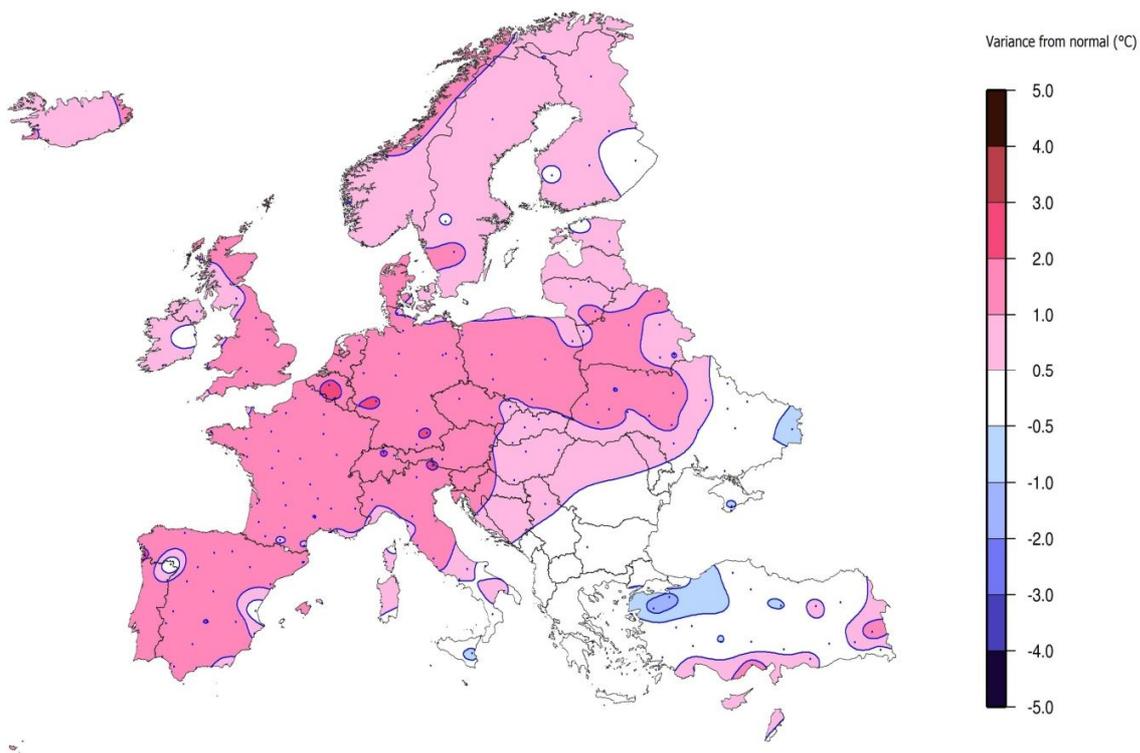
**In France**, on June 28, 2011 the Minister for Industry, Energy and the Digital Economy, raised the average “blue” tariff (for residential customers) by 1.7% and the “yellow” and “green” tariffs (for industrial and large business customers) by 3.2%. The rises are applicable from July 1, 2011.

**In the United Kingdom**, EDF Energy raised its electricity and gas tariffs for domestic customers by 7.5% and 6.5% respectively on March 2, 2011. Its electricity tariffs had risen by 2.6% on October 1, 2010 while its gas tariffs had been reduced by 3.6% on March 26, 2010.

### 2.1.4 Weather conditions

#### 2.1.4.1 Temperatures

##### Temperature variance from normal levels, January to June 2011<sup>8</sup>



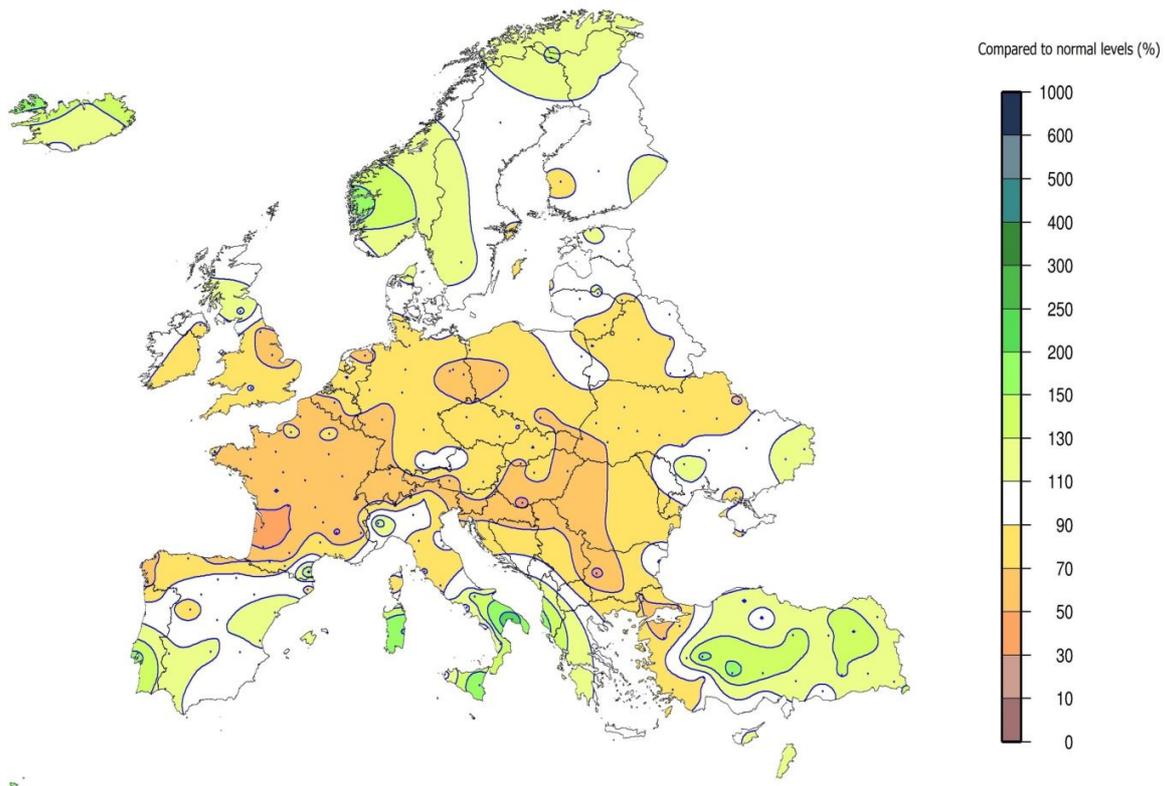
In France, temperatures in the first quarter of 2011 were equivalent to normal seasonal levels on average. They were slightly below normal in January, by  $-0.3^{\circ}\text{C}$ , then an upturn beginning in February led into a spring that saw persistent anticyclonic conditions across all of Europe. The weather became exceptionally hot, dry and sunny, as reflected in the positive differences of  $+0.2^{\circ}\text{C}$  in March,  $+2.2^{\circ}\text{C}$  in April and  $+1^{\circ}\text{C}$  in May above normal temperatures.

<sup>8</sup> Map comparing average temperatures with normal levels between January and June 2011. Normal temperatures are measured over 30 years (1971-2000 for Western Europe and 1961-1990 for Eastern Europe). Source: Base de Données Climatologiques, Météo France

This significant anomaly over April and May was also observed in France's neighboring countries (Spain, Italy, Switzerland and Germany). Temperatures cooled off slightly in June, registering an average  $-0.5^{\circ}$  variance from normal.

#### 2.1.4.2 Rainfall

##### Rainfall: January to June 2011<sup>9</sup>



During the first half of 2011, a large area of Europe – France in particular – experienced a significant shortfall in rain that took hold progressively from January onwards, peaking in April and May. In France, the cumulative rainfall for the five months from January to May 2011<sup>10</sup> was below most of the lowest levels recorded in the past fifty years. Only Spain, the southern half of Italy, Turkey and more than half of Scandinavia (Norway in particular) registered above-average rainfall.

Hydropower capacity in France gradually deteriorated over the months to reach record lows in April/May for the whole French fleet and along the major rivers where the nuclear power plants are located. Very low water levels in spring were also observed in the neighboring countries (especially the Alpine basins in Switzerland, Austria and Northern Italy) that were affected by these two abnormal rainfall and temperature situations.

<sup>9</sup> Map comparing average rainfall with normal half-year levels between January and June 2011.

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.

<sup>10</sup> Data for June were unavailable when this report went to press.

## **2.2 Significant events** <sup>11/12</sup>

### **2.2.1 Strategic developments**

#### **2.2.1.1 Simplified alternative public cash or exchange offer for EDF Energies Nouvelles shares**

On April 8, 2011 EDF announced the launch of a simplified alternative public offer to purchase or exchange the 50% of the capital of EDF Energies Nouvelles not held by the Group. The offer was made for cash at the price of €40 per EDF Energies Nouvelles share (ex coupon) or for shares based on the parity of 13 new EDF shares (to be issued, with dividend rights effective from January 1, 2011) for 11 EDF Energies Nouvelles shares (ex coupon). On May 24, 2011, the French financial markets authority AMF officially approved this offer, which was open from May 27 to June 16, 2011. Following the offer EDF now holds 75,012,639 shares representing 96.71% of the capital and voting rights in EDF Energies Nouvelles.

Since the shares that were not tendered to the offer initiated by EDF account for less than 5% of the share capital and voting rights, on July 21, 2011 EDF requested the approval of the AMF for a compulsory squeeze-out of the remaining EDF Energies Nouvelles shares at the price of €40 per share. This operation requires a prior compliance decision by the AMF. The final timetable and procedure for the squeeze-out will be published by the AMF and Euronext, and the EDF Energies Nouvelles shares will be delisted from Euronext Paris on completion of the squeeze-out.

#### **2.2.1.2 EDF and AREVA sign a technical and commercial agreement**

On July 25, 2011 EDF and AREVA signed a technical and commercial agreement finalizing the discussions initiated after the Nuclear Policy Council held by the French President on February 21, 2011. This agreement covers three key aspects of the cooperation between EDF and AREVA:

- continued optimization of the EPR, drawing on experience gained at the current EPR project sites (Olkiluoto, Flamanville, Taishan 1 and 2);
- improvement in maintenance and operation of the existing nuclear fleet, to raise operating performance and prepare for extended operating lives in excess of 40 years;
- management of the nuclear fuel cycle, to requalify new fuel products and reinforce industrial cooperation in radioactive waste storage.

#### **2.2.1.3 ERDF consolidates operations in Russia through signature of a delegated management contract**

On June 17, 2011, at the Saint Petersburg international economic forum, ERDF and Holding MRSK signed a delegated management contract for the Russian electricity distribution company of Tomsk (TRK).

At the previous Saint Petersburg international economic forum in June 2010, the two companies had signed a Memorandum of Understanding with the main aims of developing cooperation in projects concerning delegated management for Russian electricity distributors and technical matters.

ERDF thus became the first foreign partner to enter into a delegated management contract for energy distribution in Russia.

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<sup>11</sup> Significant events related to litigation are described in chapter 8.

<sup>12</sup> The reference document and a full list of press releases are available from the EDF website: [www.edf.com](http://www.edf.com).

#### **2.2.1.4 Confirmation of the investment in the Dunkirk methane terminal**

On June 29, having received the approval of its the Board of Directors on May 24, EDF announced its final investment decision in respect of the methane terminal at Dunkirk, along with Fluxys G and Total which confirmed their respective shares of 25% and 10% in Dunkerque LNG, the company responsible for building the industrial installations for the terminal. This company is now 65%-owned by EDF.

The Dunkirk methane plant, which is due to come on stream at the end of 2015, will have an annual re-gasification capacity of 13 Gm<sup>3</sup> and will increase the import capacity for LNG into France by nearly 20%.

This new terminal will enable EDF to offer a balanced and diversified supply portfolio including natural gas. The Group will be better-placed to respond to the demands of end customers through dual-energy (electricity + gas) offerings, and optimize sourcing of its combined cycle gas (CCG) plants. Thanks to the terminal's strategic location, it will be able to supply all the markets in north-west Europe.

The total value of the investment in this national and European-scale project is €1.5 billion. There will be three project managers: Grand Port Maritime de Dunkerque, which will be in charge of port infrastructures, EDF (to the extent of 65%) for industrial installations, and GRTgaz for connections to the gas transmission networks.

#### **2.2.1.5 Amendment of the shareholder agreement for Edison and TdE**

In the course of discussions on a new industrial project for Edison and the shareholder structure of TdE, A2A, Delmi and EDF agreed on March 15, 2011 to amend the shareholder agreement concerning Edison and TdE. The notice period for unilateral termination of the agreement has been extended to September 15, 2011. If no objection to renewal of the shareholder agreement is notified by either party by this deadline, it will be renewed for a further three years. If one party were to notify an objection then TdE would be dissolved under an auction process.

On April 26, 2011, Edison's new Board of Directors (made up of 13 members elected by the general shareholders' meeting, six of whom are appointed by EDF and six by Delmi) appointed Bruno Lescœur as Chief Executive Officer of Edison to replace Umberto Quadrino.

#### **2.2.1.6 Edison financial statements**

The Board of Directors of Edison approved the company's 2010 financial statements on March 21, 2011. These financial statements report net income (Edison group share) of €21 million (€240 million in 2009), including asset impairment of €407 million. Given the parent company's negative net income, no dividend will be paid to shareholders in 2011 from 2010 earnings. The EDF group had anticipated this situation and recorded a provision in its 2010 financial statements.

#### **2.2.1.7 Finalization of the sale of EnBW**

The Group completed its disposal of its 45.01% stake in EnBW to the Bade-Württemberg region on February 17, 2011 for the sum of approximately €4.7 billion (€4.5 billion was paid in addition to the €169 million downpayment received on December 16, 2010). This sale reduces the Group's indebtedness by €7.3 billion (€7.1 million of which concern the 2011 financial year).

#### **2.2.2 Potential impact for the EDF group of the nuclear accident in Japan**

Following the nuclear accident at the Fukushima power plant in Japan in the wake of the earthquake and tsunami of March 11, 2011, the administrative authorities in significant countries for the Group have responded with measures concerning plants already in operation and proposed new plants.

The following description of events is given to supplement the 2010 reference document (chapter 12) released on April 18, 2011.

- In France, the Prime Minister asked the Nuclear Safety Authority (ASN) in a letter dated 23 March to conduct further assessments of the safety of France's nuclear facilities. To ensure coherence in the actions undertaken at national and European level, the ASN presented specifications for these assessments on May 9, 2011, and on May 5 published certain decisions concerning each nuclear operator. In accordance with the decision concerning it, EDF will remit site-by-site reports to the ASN by September 15, 2011, including for projects in process. These additional safety assessments focus on the safety margins in the event of extreme natural phenomena (earthquake, floods or a combination of the two) and the loss of one or more safety functions implicated at Fukushima (power supplies and cooling systems, or both). Finally, they consider the management of serious accidents that may result from such events, and conditions in which use is made of subcontractors. After reviewing these reports, the ASN will publish its initial conclusions no later than November 15, 2011.

In April, as well as the additional safety assessments EDF presented its initial proposals to reinforce safety and control of its nuclear generation fleet to the ASN panel of commissioners. After Fukushima, EDF prepared a first program of actions for the short, medium and long term, covering several dimensions:

- assessment of the top-level technical and human resources that would be required in the event of an accident,
- establishment of a national rapid-intervention EDF "task force" to reinforce the crisis response, with dedicated transport equipment and human resources that can be mobilized within 24-48 hours,
- a detailed review of power plant design, to ensure that facilities have sufficient safety margins to cope with events such as earthquakes, floods, power loss and cooling.

- In Germany, the Government announced on May 30, 2011 that all German nuclear reactors would cease operation by the end of 2022 at the latest.

- In Italy, in a referendum held on June 12 and 13, 2011, electors voted in favor of repealing the law of July 2009 that had initiated a return to nuclear power in the country.

- In the United Kingdom, at the request of the Secretary of State for Energy, the Chief Inspector of Nuclear Installations released the "Weightman report" on May 18, 2011 concerning the consequences of Fukushima for the British nuclear industry. The report concluded that there were no immediate implications for the UK's nuclear program. EDF Energy's Nuclear Generation and New Nuclear divisions issued an initial joint response. Meanwhile, the Office for Nuclear Regulation asked EDF Energy to take part in stress tests as called for by the European Commission. The divisions of EDF Energy and the rest of the EDF group are continuing to work together to meet these demands by the deadline.

- In the US, the Nuclear Regulator Commission (NRC) has begun a systematic, methodical review of the safety of nuclear power plants in operation, to be based on short-term and long-term analysis of the accident in Japan. The first report, published on July 19, 2011, contained twelve recommendations with the following priorities: to reassess seismic and flooding risks, strengthen the plants' blackout mitigation capability, give more consideration to the risk of multi-reactor events and reinforce safety in the vent systems of BWR type reactors (Mark I and II), and the cooling systems of all spent fuel pools. A second evaluation with longer-term recommendations will be carried out by the end of 2011. The authorities, through President Obama and the Secretary of State for Energy, have continued to express support for the nuclear industry in the United States.

## **2.2.3 Business in France**

### **2.2.3.1 Flamanville 3**

While milestones have been reached in recent months in construction of the Flamanville EPR (80% of the civil engineering work has been completed and assembly of piping and mechanical equipment has begun), progress was

slowed in the first half of 2011 by two serious accidents at the site, one of which resulted in partial suspension of engineering work for several weeks.

Flamanville 3 is the first nuclear power plant to be built in France for 15 years, and the country's first EPR. The extent of the work to be done, particularly the civil engineering work, has had to be reassessed and EDF has decided to introduce a new approach to organization with its partners. As a result, the first KWh produced by the EPR at Flamanville will be sold in 2016, and the project cost was updated to approximately €6 billion.

### 2.2.3.2 Exeltium

On March 25, 2010, EDF signed two amendments to the 2008 agreement with Exeltium, a consortium founded by seven large industrial groups, for long-term electricity supplies in two tranches. The first of the two tranches began in the first half of 2010. Deliveries for the second tranche of the agreement did not begin on February 1, 2011 as scheduled. Discussions are under way with the aim of starting the second tranche by the end of 2011.

## 2.2.4 Regulatory environment

### 2.2.4.1 France

#### 2.2.4.1.1 "NOME" Law on the new electricity market organization, and introduction of "ARENH" - regulated access to historical nuclear energy

The French "NOME" law (*Nouvelle Organisation du Marché de l'électricité*) on the new electricity market organization was enacted on December 7, 2010 and the principal implementation decrees were issued during the first half of 2011. The basic principles of this law, which is intended to encourage greater competition on the electricity market in France, are:

- development of competition, by allowing other suppliers temporary access to a portion of EDF's baseload nuclear energy output until 2025. This is the principle of regulated access to historical nuclear energy (ARENH – *Accès Régulé à l'Électricité Nucléaire Historique*),
- the obligation for every supplier to have direct or indirect guarantees of its demand response capacity for consumption or generation, to encourage peak consumption management,
- continuation of the "blue" tariff for residential and small business customers, with the right to return to EDF for customers having opted for a different supplier; the calculation method will be modified from 2015 to reflect the ARENH principle;
- discontinuation of the "yellow" and "green" tariffs for business customers from 2015;
- deferral by 5 years, to June 29, 2016, of the deadline for building up the dedicated assets portfolio, provided certain criteria are met<sup>13</sup>.

The ARENH principle came into force on July 1, 2011, and the volumes of energy sold to competitors under this principle must go to their customers in France. No more than 100 TWh can be sold in this way each year; this limit will be raised in August 2013 by the quantities supplied to network managers to cover network losses.

The decisions setting the price of the ARENH under the NOME law at €40/MWh for the second half of 2011 and €42/MWh from January 1, 2012 were published in May 2011. This initial price has been established in coherence with the average price under the TaRTAM transition tariff system, which ended on June 30, 2011.

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<sup>13</sup> Assets built up in compliance with the Law of June 28, 2006 to cover long-term nuclear commitments.

On June 15, 2011 the French energy regulator CRE notified EDF of the volumes to be delivered for the period running from July 1, 2011 to June 30, 2012 (61.3 TWh).

The capacity obligation system should come into force by 2015.

#### **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. This tax is collected directly from the final customer and applies to electricity consumption. It was raised by €3/MWh on January 1, 2011 to €7.5/MWh for the first half of 2011. The amended Finance Law for 2011 has set the CSPE at €9/MWh until June 30, 2012, then €10.5/MWh from July 1 to December 31, 2012.

Since 2007, CSPE income has been unable to cover expenses, which have been steadily rising, primarily due to the higher level of windpower and solar power output covered by purchase obligations. The shortfall, amounting to €3.3 billion at June 30, 2011 is borne solely by EDF. The unit amount proposed by the CRE for 2011 to cover these expenses and past shortfalls was €12.9/MWh.

To control the expenses covered by the CSPE, particularly the significant rise in the costs of purchasing photovoltaic electricity, a decree of December 9, 2010, published in France's Official Gazette (*Journal Officiel*) of December 10, 2010, suspended the obligation to purchase photovoltaic solar power for three months for all new projects except those concerning less than 3kW. At the end of this period, on March 9, 2011, new rules came into force to regulate the photovoltaic solar power sector, setting quotas for new projects and lowering the purchase tariff.

Application of the basic necessity tariff (*tarif de première nécessité*) has become automatic from 2011 so that the number of beneficiaries can be increased.

#### **2.2.4.2 United Kingdom**

##### **2.2.4.2.1 Introduction of a "carbon floor" price**

On March 24, 2011, the British government announced the introduction of a "carbon floor", i.e. a minimum carbon price, one of the conditions necessary for the spread of low carbon or nuclear energies.

This carbon floor price is set at £16/t, for application from April 1, 2013. It is expected to reach £30/t in 2020 with a long-term target of £70/t in 2030, based on 2009 prices. This tax should encourage development of new low-carbon energies in the United Kingdom.

##### **2.2.4.2.2 The British Parliament ratified the nuclear new build program**

On July 18, the British Parliament voted on the National Policy Statement for Nuclear Power Generation, ratifying the program for building new nuclear power plants in the United Kingdom. This vote is confirmation of the government's decision to use nuclear power to meet the UK's growing need for low-carbon electricity production.

The Parliament also confirmed the list of authorized sites for new nuclear plants, which includes Hinkley Point and Sizewell, the two priority sites identified by EDF for construction of its future power plants.

This vote is a major step forward for the development of nuclear power in the UK and for the EDF group. It follows the British government's announcement of July 12 confirming its decision to reform the UK electricity market.

## **2.2.5 Governance**

### **2.2.5.1 Board of Directors**

By decree of June 21, 2011, Julien Dubertret, Director of the budget at the French ministry for the Budget, public accounts and State reform, was appointed a member of EDF's Board of Directors. He replaces Philippe Josse as a director representing the French State.

### **2.2.5.2 Management Committee**

Two new members were appointed to the Group's Management Committee during the first half of 2011: Jean-Paul Bouttes, Chief Economist, Director of Strategy and Prospects, and Bernard Salha, Director of Research and Development.

## **2.2.6 Human resources**

### **2.2.6.1 Support measures for the reform of the special electricity and gas sector (IEG) pension system in France**

In the wake of the French pension reform law of November 9, 2010, the French government issued several decrees to affiliate electricity and gas sector (IEG – *Industries Electriques et Gazières*) status employees to the standard national pension system for public sector workers. However, these measures will only apply to the IEG sector from 2017.

### **2.2.6.2 EDF SA's 2011-2013 profit sharing agreement**

A new profit sharing agreement and the terms for contributions by the company were negotiated in April and May, and the Works Council was consulted on June 9. The agreement was signed on June 30 by the French unions FO, CFE-CGC and CFDT.

### **2.2.6.3 Commitments under the "Training Challenge" (*Défi Formation*)**

In order to offer employees more career prospects and stimulate social mobility, the EDF group has made commitments to develop innovative training leading to qualifications for managerial staff (for at least 50 to 150 people per year) and supervisory staff.

The Executive Committee meeting of February 1, 2011 defined the main lines of the Campus EDF project: ongoing improvements at the Les Mureaux Campus, doubling the number of courses offered in 2011, and the start of work on the new Saclay Campus, on the same site as R&D.

### 3 Analysis of the business and the consolidated income statements for the first half-years of 2010 and 2011

Presentation and analysis of the consolidated income statements for the first half-years of 2010 and 2011 is presented on two levels of analysis for sales and EBITDA: a first focusing on the Group, then a second reporting on 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.

In millions of Euros	H1 2011	H1 2010 (adjusted) <sup>(1)</sup>	H1 2010 (restated) <sup>(2)</sup>
<b>Sales</b>	<b>33,464</b>	<b>32,640</b>	<b>33,538</b>
Fuel and energy purchases	(14,964)	(14,869)	(13,273)
Other external expenses	(4,483)	(4,396)	(4,734)
Personnel expenses	(5,479)	(5,166)	(5,707)
Taxes other than income taxes	(1,511)	(1,450)	(1,702)
Other operating income and expenses	1,589	1,647	1,700
Prolongation of the TaRTAM transition tariff system – Law of June 7, 2010	-	(265)	(265)
<b>Operating profit before depreciation and amortization (EBITDA)</b>	<b>8,616</b>	<b>8,141</b>	<b>9,557</b>
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	(28)	61	61
Net depreciation and amortization	(3,131)	(3,097)	(3,621)
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(208)	(251)	(251)
(Impairment)/Reversals	(269)	(1)	(1)
Other income and expenses	276	(1,060)	(1,060)
<b>Operating profit (EBIT)</b>	<b>5,256</b>	<b>3,793</b>	<b>4,685</b>
<b>Financial result</b>	<b>(1,810)</b>	<b>(1,952)</b>	<b>(2,227)</b>
<b>Income before taxes of consolidated companies</b>	<b>3,446</b>	<b>1,841</b>	<b>2,458</b>
Income taxes	(977)	(924)	(1,111)
Share in income of associates	259	309	93
Net income of discontinued operations	-	-	386
<b>Group net income</b>	<b>2,728</b>	<b>1,226</b>	<b>1,826</b>
Net income attributable to non-controlling interests	174	148	167
<b>EDF net income</b>	<b>2,554</b>	<b>1,078</b>	<b>1,659</b>
<b>Earnings per share (in Euros)</b>	<b>1.38</b>	<b>0.58</b>	<b>0.90</b>
<b>Diluted earnings per share (in Euros)</b>	<b>1.38</b>	<b>0.58</b>	<b>0.90</b>

(1) 2010 figures are based on a comparable scope of consolidation to 2011, excluding RTE, EnBW, the Eggborough plant and the networks in the UK.

(2) 2010 figures have been restated in accordance with accounting principles (see section 1).

### 3.1 Sales

Consolidated sales rose by 2.5%, with organic growth of 2.7%.

#### 3.1.1 Change in Group sales

In millions of Euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)	Organic growth (%)
Sales	33,464	32,640	+824	+2.5	+2.7

Sales growth reflects organic growth of €870 million (2.7%) and to a lesser extent changes in the scope of consolidation (+€23 million). It also incorporates negative foreign exchange effects of €69 million, principally resulting from the fall of the British and American currencies against the Euro.

#### 3.1.2 Change in sales by segment

In millions of euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)	Organic growth (%)
<b>France</b>	<b>19,495</b>	<b>18,844</b>	<b>+651</b>	<b>+3.5</b>	<b>+3.5</b>
United Kingdom	4,390	4,861	-471	-9.7	-8.5
Italy	3,052	2,766	+286	+10.3	+10.1
Other International	3,800	3,530	+270	+7.6	+8.5
Other Activities	2,727	2,639	+88	+3.3	+1.9
<b>Total excluding France</b>	<b>13,969</b>	<b>13,796</b>	<b>+173</b>	<b>+1.3</b>	<b>+1.6</b>
<b>Group sales</b>	<b>33,464</b>	<b>32,640</b>	<b>+824</b>	<b>+2.5</b>	<b>+2.7</b>

Sales outside France for the first half of 2011 represented 41.7% of total consolidated sales compared to 42.3% for first-half 2010 (adjusted).

##### 3.1.2.1 France

#### Change in sales in the "France" segment

France's contribution to Group sales amounted to €19,495 million, showing organic growth of 3.5% from first-half 2010 (adjusted).

Electricity sales contributed a 4.6% rise, while sales of gas and other products were down by 1.1%.

The growth in electricity sales is mainly due to positive price effects (+4.4 points) resulting from the tariff increase of August 15, 2010 and market prices some €6/MWh higher than in the first half of 2010. A secondary factor was the increase in volumes sold.

At June 30, 2011, EDF's share of the electricity market for all final customers is 81.5%, 2.5 points lower than at June 30, 2010.

**Breakdown of sales for the “France” segment between deregulated activities<sup>14</sup>, network activities<sup>15</sup> and island activities<sup>16</sup>**

In millions of Euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)
<b>Sales</b>	<b>19,495</b>	<b>18,844</b>	<b>+651</b>	<b>+3.5</b>
<b>Deregulated activities</b>	<b>18,510</b>	<b>17,955</b>	<b>+555</b>	<b>+3.1</b>
<b>Network activities</b>	<b>6,289</b>	<b>6,335</b>	<b>-46</b>	<b>-0.7</b>
- including ERDF	6,289	6,335	-46	-0.7
<b>Island activities</b>	<b>427</b>	<b>410</b>	<b>+17</b>	<b>+4.1</b>
<b>Eliminations</b>	<b>(5,731)</b>	<b>(5,856)</b>	<b>+125</b>	<b>-2.1</b>

The 3.1% increase in **sales by the deregulated activities** is primarily attributable to the favorable impact of the 2010 tariff rise and higher net sales on the wholesale markets.

**Sales by the network activities** were stable: tariff rises offset the effect of the lower volumes delivered in winter 2011, which was milder than in 2010.

### Electricity generation

Nuclear generation produced 218.4 TWh in the first half of 2011, compared to 202.9 TWh for the first half of 2010. This noticeable 15.5 TWh rise is explained by the good availability of the fleet over the first few months of the year, which was largely due to the absence of unscheduled shutdowns.

Hydropower generation produced 14.1 TWh, a marked downturn from first-half 2010 (-7.6 TWh) caused by the weather conditions described in section 2.1.4.

Fossil-fired generation produced 6.0 TWh, 3.2 TWh less than in the first half of 2010. This decline is mainly attributable to the price differential between electricity and fossil fuels: it was less favorable to fossil-fired generation due to a more relaxed supply-demand balance.

Sales volumes to final customers, including Eurodif and local distribution firms, were down by 18.6 TWh. In contrast to 2011 and its very mild weather, the first half of 2010 was marked by very cold temperatures, and the temperature differential alone explains -13.3 TWh of the decrease. Also, losses of customers, mainly at the high end of the portfolio<sup>17</sup>, and the reduction in supplies to Eurodif were not offset by rising demand.

Compared to first-half 2010, the net volumes sold on the wholesale markets showed a marked rise (+23.6 TWh). Excluding VPP<sup>18</sup> auctions, EDF was a net seller of 12.9 TWh on the markets in the first half of 2011. At 20 TWh, VPP auctions were stable compared to first-half 2010.

<sup>14</sup> Generation, supply and optimization in mainland France, and sales of engineering and consulting services.

<sup>15</sup> From the first half of 2011, network activities only include Distribution, as a result of application of the equity method to the Transmission activity from December 31, 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.

<sup>16</sup> EDF's generation and distribution activities in the island energy systems (IES).

<sup>17</sup> Very large business and industrial customers.

<sup>18</sup> Virtual Power Plant capacity auction system.

### 3.1.2.2 United Kingdom

Since the sale of the Networks activities to the CKI group on October 29, 2010, **EDF Energy** has comprised three operating divisions: Energy Sourcing and Customer Supply, the Nuclear Generation division, and development of the Nuclear New Build project in the United Kingdom.

Sales in this segment amounted to €4,390 million in first-half 2011, down by 9.7% compared to first-half 2010 (adjusted), with organic degrowth of 8.5%.

The operating performance of the Nuclear Generation division is reflected in the higher level of nuclear generation (31.0 TWh in the first half of 2011 compared to 24.8 TWh in first-half 2010), which was particularly affected in 2010 by an unplanned shutdown at the Sizewell B plant and a rise in average sale prices (£47/MWh in first-half 2011 compared to £44/MWh in first-half 2010).

Despite the good performance by the Nuclear Generation division and the overall rise in tariffs (for electricity, +2.6% on October 1, 2010 and +7.5% on March 2, 2011; for gas, -3.6% on March 26, 2010 then +6.5% on March 2, 2011), sales revenues were down as a result of supply activities, which were affected by the following factors:

- for electricity, lower volumes of contractual sales to business customers following rationalization of the portfolio which reduced the number of customers without significantly affecting results,
- for gas, a decline in sales to domestic customers because the winter of 2011 was less harsh than in 2010.

### 3.1.2.3 Italy

**Italy**<sup>19</sup> contributed €3,052 million to consolidated sales, up by 10.3% with organic growth of 10.1%.

Sales by **Edison** rose by €275 million (+10.9%), boosted by the electricity business, which benefited from a positive price effect and to a lesser degree a generally favorable volume effect driven by the wholesale markets, despite a downturn in volumes sold to end-customers. In the hydrocarbon business, the rise in volumes sold on the wholesale and thermoelectric markets was accompanied by a rise in commodity prices.

### 3.1.2.4 Other International

The **Other International** segment principally covers operations in Europe outside the United Kingdom and Italy, and operations in the United States, Brazil and Asia (China, Vietnam and Laos).

This segment contributed €3,800 million to Group sales in the first half of 2011, up by €270 million from first-half 2010 (adjusted).

Foreign exchange effects between the first half of 2010 (adjusted) and the first half of 2011 amounted to - €18 million. The effect of changes in the scope of consolidation in this segment essentially concern changes in the consolidation method for Unistar<sup>20</sup> and the Polish subsidiaries Zielona Gora and Kogeneracja<sup>21</sup>.

Without these scope and exchange effects, sales would show organic growth of 8.5% compared to first-half 2010 (adjusted).

Most of this increase concerns Belgium, and to a smaller extent Poland and Austria.

In **Belgium**, sales stood at €1,760 million, with organic growth of +16% resulting chiefly from the higher volumes of electricity sold to final customers, while gas volumes were down due to the milder first-half weather in 2011 than 2010.

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<sup>19</sup> Edison Group and Fenice.

<sup>20</sup> From proportional consolidation to full consolidation in November 2010.

<sup>21</sup> From full consolidation to proportional consolidation in February 2011.

Sales in **Poland** amounted to €631 million. The organic growth of +1.9% was essentially driven by higher electricity and heat prices, partly offset by lower sales of electricity and heat due to the milder weather of first-half 2011 compared to first-half 2010.

In **Austria**, sales reached €195 million corresponding to organic growth of +28.3%, reflecting an increase in electricity sales volumes due to the cold winter of early 2011, and an upturn in business with industrial customers.

### 3.1.2.5 Other Activities

**Other activities** comprise, among other entities, EDF Energies Nouvelles, EDF Trading, Electricité de Strasbourg and the investment in Dalkia.

The contribution by the **Other activities** segment to Group sales in the first half of 2011 was €2,727 million, up by €88 million or 3.3%, with organic growth of 1.9% from first-half 2010 (adjusted).

Sales at **EDF Energies Nouvelles** showed organic growth of 4.3% over first-half 2010 (adjusted). This growth was driven by wind power generation which benefited from the full-year effect of facilities commissioned during 2010, and also by photovoltaic solar power generation which developed significantly in first-half 2011. However, it was adversely affected by the lower level of sales generated by Development-Sales of Structured Assets.

**EDF Trading**'s<sup>22</sup> first-half sales registered organic growth compared to first-half 2010 (adjusted) (+7.3%), particularly in electricity.

**Dalkia's** contribution to sales showed organic growth of €20 million (+1.7%), reflecting business growth primarily in the UK and China.

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<sup>22</sup> EDF Trading sales consist of trading margins.

## 3.2 EBITDA

EBITDA rose by 5.8%, with organic growth of 6.2%.

In millions of euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)	Organic growth (%)
<b>Sales</b>	<b>33,464</b>	<b>32,640</b>	<b>+824</b>	<b>+2.5</b>	+2.7
Fuel and energy purchases	(14,964)	(14,869)	-95	+0.6	+1.0
Other external expenses	(4,483)	(4,396)	-87	+2.0	+1.3
Personnel expenses	(5,479)	(5,166)	-313	+6.1	+6.2
Taxes other than income taxes	(1,511)	(1,450)	-61	+4.2	+4.2
Other operating income and expenses	1,589	1,647	-58	-3.5	-2.7
Prolongation of the TaRTAM transition tariff – Law of June 7, 2010	-	(265)	+265	n.a.	n.a.
<b>EBITDA</b>	<b>8,616</b>	<b>8,141</b>	<b>+475</b>	<b>+5.8</b>	<b>+6.2</b>

### 3.2.1 Change in consolidated EBITDA and analysis

**Consolidated EBITDA** for the first half-year of 2011 amounted to €8,616 million, up by 5.8% from first-half 2010 (adjusted), corresponding to organic growth of 6.2%. Foreign exchange effects amounted to -€12 million and reflect the unfavorable movements by the UK and American currencies against the Euro.

**Fuel and energy purchases** amounted to €14,964 million, an increase of €95 million (+0.6%) compared to first-half 2010 (adjusted). The organic growth in these purchases stood at +1.0%. **France** registered an organic rise of 2.1%, explained essentially by growth in purchase obligations. In **Italy**, the organic growth of 17.3% was driven by both gas and electricity purchases. In the **Other International** segment, the 14.6% organic growth was mainly associated with the higher volumes sold in Belgium and price and CO<sub>2</sub> cost effects in Poland. For fuel and energy purchases in the **United Kingdom**, however, organic growth was negative at -22.2% due to unfavorable developments in sales volumes combined with the greater nuclear power output.

The Group's **Other external expenses** amounted to €4,483 million, up by €87 million (+2.0%) from first-half 2010 (adjusted). Organic growth was +1.3%. It mostly concerned **France** (organic growth of 1.7% essentially resulting from the rise in maintenance costs for the generation fleet).

The Group's **personnel expenses** totaled €5,479 million, €313 million (+6.1%) higher than in the first half of 2010 (adjusted), with organic growth of 6.2%. Most of this change related to **France**, where personnel expenses totaled €4,106 million, showing organic growth of 7.1% from first-half 2010 (adjusted). This reflects the increase in the workforce, pay measures, and pension-related expenses.

**Taxes other than income taxes** stood at €1,511 million for the first half of 2011, up by €61 million from first-half 2010 (adjusted) (+4.2%, identical to organic growth). The increase was mainly located in **France**.

**Other operating income and expenses** generated income of €1,589 million in the first half of 2011, €58 million lower than in first-half 2010 (adjusted), with an organic variation of -2.7%. In **France**, the higher CSPE income in first-half 2011 was partly offset by a €118 million charge resulting from adjustment of the energy regulator CRE's forecast of the cost of the TaRTAM transition tariff system. In the **United Kingdom**, other operating income and expenses were lower following the fair value adjustment of British Energy electricity sale contracts, which had a less favorable effect in first-half 2011 than first-half 2010. The **Other Activities** segment's contribution reflects the unfavorable effect of the gain on disposal of Usti, which was recorded by Dalkia in the first half of 2010 and had no equivalent in first-half 2011.

Following enactment of the law of June 7, 2010 which extended the TaRTAM transition tariff system for six months, a net €265 million allocation to provisions was recorded on a specific line in the first half-year of 2010.

### 3.2.2 Change in consolidated EBITDA by segment and analysis

In millions of Euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)	Organic growth (%)
<b>France</b>	<b>5,688</b>	<b>5,240</b>	<b>+448</b>	<b>+8.5</b>	<b>+8.3</b>
United Kingdom	1,172	976	+196	+20.1	+20.7
Italy	218	365	-147	-40.3	-40.5
Other International	638	602	+36	+6.0	+10.0
Other Activities	900	958	-58	-6.1	-4.8
<b>Total excluding France</b>	<b>2,928</b>	<b>2,901</b>	<b>+27</b>	<b>+0.9</b>	<b>+2.3</b>
<b>Consolidated EBITDA</b>	<b>8,616</b>	<b>8,141</b>	<b>+475</b>	<b>+5.8</b>	<b>+6.2</b>

### 3.2.2.1 France

#### Change in EBITDA for the France segment

France contributed €5,688 million of consolidated EBITDA for the first half of 2011, 8.5% higher than in first-half 2010 (adjusted), corresponding to organic growth of 8.3%. This contribution accounted for 66.0% of Group EBITDA, compared to 64.4% in first-half 2010 (adjusted).

#### Breakdown<sup>23</sup> of EBITDA for the "France" segment between deregulated activities, network activities and island activities

In millions of Euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)
<b>EBITDA</b>	<b>5,688</b>	<b>5,240</b>	<b>+448</b>	<b>+8.5</b>
<b>Deregulated activities</b>	<b>4,136</b>	<b>3,721</b>	<b>+415</b>	<b>+11.2</b>
<b>Network activities</b>	<b>1,434</b>	<b>1,424</b>	<b>+10</b>	<b>+0.7</b>
-including ERDF	1,434	1,424	+10	+0.7
<b>Island activities</b>	<b>118</b>	<b>95</b>	<b>+23</b>	<b>+24.2</b>

EBITDA for the deregulated activities rose by 11.2%. This increase essentially comprises the effect of improved nuclear power output, amounting to €717 million, partly counterbalanced by the lower hydropower output (-€380 million) as final demand dropped slightly due to the milder weather in first-half 2011 than first-half 2010. EDF was thus a net seller on the wholesale markets, where prices were higher than in first-half 2010. The rise in regulated sales tariffs generated a positive effect of +€304 million.

EBITDA for the network activities was stable, reflecting the less pronounced weather effects of 2011, offset by higher sales tariffs.

EBITDA for the island activities increased due to the tariff increase.

### 3.2.2.2 United Kingdom

The United Kingdom's contribution to Group EBITDA was €1,172 million for the first half of 2011, up by 20.1% from first-half 2010 (adjusted). The organic growth in EBITDA was 20.7%.

EBITDA for the Nuclear Generation division registered significant growth of €308 million, driven by the higher nuclear power output.

Energy Sourcing and Customer Supply saw a decline in EBITDA, in keeping with the less favorable weather compared to first-half 2010.

### 3.2.2.3 Italy

The **Italy** segment contributed €218 million to the Group's consolidated EBITDA, down by 40.3% from first-half 2010 (adjusted) (organic decline of -40.5%).

**Edison** contributed €158 million to consolidated EBITDA in first-half 2011 against €305 million in first-half 2010 (adjusted), corresponding to an organic decline of €147 million or -48.2%.

EBITDA for the electricity activities also declined, due to the combined effect of expiry or early termination in December 2010 of the CIP6 subsidies for certain plants, and shrinking unit margins. The electricity segment nonetheless benefited from the positive contribution by renewable energies and activities outside Italy.

<sup>23</sup> Further details of this breakdown can be found in section 3.1.2.1.

The hydrocarbon activities' contribution to EBITDA was noticeably lower compared to first-half 2010 (adjusted), despite the progression of Exploration and Production. These activities were strongly affected by the fall in margins on gas sales to final customers, which resulted from a highly competitive environment for gas sales, associated with supply costs on long-term contracts subject to ongoing negotiations and arbitration procedures.

On July 21, 2011, Edison successfully completed renegotiations with Promgas concerning the long-term contract for natural gas supplies from Russia. In the EDF group's half-year consolidated financial statements, the impact of this renegotiation is a pre-tax profit of €56 million. In practice, this amount will be recognized in the Group's consolidated financial statements in the second half-year of 2011.

**Fenice's** contribution to consolidated EBITDA was stable in first-half 2011 compared to first-half 2010.

#### 3.2.2.4 Other International

EBITDA for the **Other International** segment was up by 6.0%, with organic growth of 10.0%.

EBITDA in **Belgium** registered organic growth of 42.5%, reflecting a progression in electricity sales volumes and better margins on electricity and gas.

**Poland** saw organic growth of +9.2%, including a gain resulting from deconsolidation of Zielona Gora and Kogeneracja, which was partly counterbalanced by a fall in margins. This was explained by the increase in coal and biomass purchase prices, together with lower sales of electricity and heat due to less favorable weather effects than in first-half 2010.

In **Hungary**, EBITDA showed organic degrowth (-9.5%), especially at EDF Demasz where margins were in decline and a new tax on energy sector companies was recognized in 2011.

EBITDA decreased significantly (-52.8%) in the **United States** compared to first-half 2010 (adjusted). The organic decline in EBITDA was -30.6% and is explained by the adverse effect of unscheduled outages at CENG, and a change in status for Unistar's new nuclear project Calvert Cliffs 3. Now it has been classified as being in the pre-development phase, the related expenses are recorded as charges and no longer capitalized (see section 4.3).

#### 3.2.2.5 Other Activities

**Other Activities** contributed €900 million to Group EBITDA for the first half of 2011, €58 million less than in first-half 2010 (adjusted), with an organic variation of -4.8%.

**EDF Energies Nouvelles'** contribution to consolidated EBITDA registered an organic increase of 18.0% from first-half 2010 (adjusted), in line with development of its businesses.

EBITDA at **EDF Trading** is stabilizing, and was +5.7% higher than in first-half 2010 (adjusted). This movement was driven by an increase in electricity trading volumes primarily associated with the state of the demand-supply balance in France.

**Dalkia's** EBITDA saw an organic decline of €92 million (-40.9%), primarily due to the gain recognized in first-half 2010 on the sale of Usti in the Czech Republic. Lower earnings, especially in Italy and Spain, also explain this downturn.

### 3.3 EBIT

36.8% increase in EBIT.

In millions of euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)
<b>EBITDA</b>	8,616	8,141	+475	+5.8
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	(28)	61	-89	n.a.
Net depreciation and amortization	(3,131)	(3,097)	-34	+1.1
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(208)	(251)	+43	-17.1
(Impairment)/reversals	(269)	(1)	-268	n.a.
Other income and expenses	276	(1,060)	+1,336	n.a.
<b>Operating profit (EBIT)</b>	<b>5,256</b>	<b>3,793</b>	<b>+1,463</b>	<b>+38.6</b>

The Group's **consolidated EBIT** amounted to €5,256 million for the first half of 2011, €1,463 million higher than in first-half 2010 (adjusted), chiefly as a result of changes in other income and expenses (the provision recorded in respect of business in the US in the first half-year of 2010).

#### 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, fell from €61 million in the first half of 2010 (adjusted) to -€28 million in the first half of 2011. Negative changes were mainly located in the **Other Activities** segment (SPE), and were partly offset by positive changes in the **United Kingdom** segment (+€37 million).

#### 3.3.2 Net depreciation and amortization

Net depreciation and amortization was practically stable compared to first-half 2010 (adjusted) (+1.1%).

The **United Kingdom** and **Italy** both registered lower net depreciation and amortization in the first half of 2011. In the UK, this was due to extension of the operating lifetimes of the Heysham 1 and Hartlepool plants authorized by the Nuclear Installations Inspectorate (NII)<sup>24</sup> in 2010, while in Italy it is explained by the fact that impairment on industrial assets was recorded in 2010.

**France**, in contrast, reported higher net depreciation and amortization (+€150 million) as a result of new investments. Also, commissioning of the generation fleet at EDF Energies Nouvelles led to a €15 million increase in depreciation expenses.

<sup>24</sup> Part of the Office for Nuclear Regulation (ONR) since April 1, 2011.

### 3.3.3 Net increases in provisions for renewal of property, plant and equipment operated under concessions

The €43 million decrease in net increases in provisions for renewal of property, plant and equipment operated under concessions between the first half of 2010 and the first half of 2011 is mainly attributable to ERDF (the basis for valuation of assets renewable during the concession was reduced).

### 3.3.4 Impairment / reversals

The unfavorable €268 million change compared to first-half 2010 (adjusted) mainly concerns €174 million of impairment booked in the **Other Activities** segment by Dalkia in respect of operations in the Italy zone and to a lesser extent the Spain zone, and €60 million of impairment booked in **Italy** by Edison in respect of generation assets.

### 3.3.5 Other income and expenses

In the first half of 2010, other income and expenses included a €1,060 million allocation to provisions related to business in the **United States**.

In the first half of 2011, they include the €276 million gain on sale of EnBW.

## 3.4 Financial result

In millions of Euros	H1 2011	H1 2010 (adjusted)	Variation	Variation (%)
Cost of gross financial indebtedness	(1,107)	(1,123)	+16	-1.4
Discount effect	(1,524)	(1,480)	-44	+3.0
Other financial income and expenses	821	651	+170	+26.1
<b>Financial result</b>	<b>(1,810)</b>	<b>(1,952)</b>	<b>+142</b>	<b>-7.3</b>

The financial result for first-half 2011 is a financial expense of €1,810 million, down by €142 million from first-half 2010 (adjusted) as a result of:

- practically stable interest expenses (-1.4%);
- a €44 million increase in discount expenses, essentially in France;
- a favorable €170 million change in other financial income and expenses, mainly comprising gains on sales of financial investments, which were higher in first-half 2011 than in first-half 2010 (adjusted).

## 3.5 Income taxes

Income taxes amounted to €977 million in the first half of 2011, corresponding to an effective tax rate of 28.4% (compared to an expense of €924 million corresponding to an effective tax rate of 50.2% for the first half of 2010 (adjusted)). They are calculated by applying the forecast effective tax rate for 2011 to the pre-tax income at June 30, 2011.

The decrease in the effective tax rate is mainly explained by the recognition in first-half 2010 of a provision in respect of the Group's business in the US.

### 3.6 Share in income of associates

The Group's share in income of associates was a positive €259 million at June 30, 2011, compared to €309 million at June 30, 2010 (adjusted). This decrease is mainly due to RTE's lower net income compared to first-half 2010.

### 3.7 Net income attributable to non-controlling interests

Net income attributable to non-controlling interests amounted to €174 million for the first half of 2011, a slight increase from first-half 2010 (adjusted) (+€26 million). The main factor in this increase was the rise in EDF Energy's net income attributable to Centrica.

### 3.8 EDF net income

EDF net income was €2,554 million at June 30, 2011, up by 136.9% compared to first-half 2010 (adjusted).

### 3.9 Net income excluding non-recurring items

The Group's net income excluding non-recurring items<sup>25</sup> stood at €2,629 million for first-half 2011, €269 million (11.4%) higher than at June 30, 2010 (adjusted).

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<sup>25</sup> Group net after-tax income excluding non-recurring items.

Non-recurring items and net changes in fair value on Energy and Commodity derivatives, excluding trading activities, net of tax in first-half 2011 (-€75 million):

- +€263 million for the gain on disposal of EnBW,
- -€321 million for the TaRTAM provision and other risks and impairment (mainly concerning Dalkia and Edison)
- -€17 million of 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 first-half 2010 (adjusted) (-€1,282 million):

- -€1,060 million for a provision related to business in the US,
- -€230 million for the TaRTAM provision and other risks and impairment,
- +€8 million of net changes in fair value on Energy and Commodity derivatives, excluding trading activities, net of tax.

## 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 has been revised in 2010 to reflect the Group's loans to RTE, which is accounted for under the equity method from December 31, 2010.

Changes in the Group's net indebtedness were as follows:

In millions of Euros	H1 2011	H1 2010 (restated)	Variation	H1 2010 (adjusted)	Variation (%) <sup>(4)</sup>
<b>Operating profit before depreciation and amortization (EBITDA)</b>	<b>8,616</b>	<b>9,557</b>	<b>-941</b>	<b>8,141</b>	<b>+5.8</b>
Cancellation of non-monetary items included in EBITDA	-1,352	-1,027	-325	-1,031	
Net financial expenses disbursed	-1,007	-1,124	+117	-860	
Income taxes paid	-582	-1,135	+553	-1,064	
Other items	290	58	+232	463	
<b>Net cash flow from operations <sup>(1)</sup></b>	<b>5,965</b>	<b>6,329</b>	<b>-364</b>	<b>5,650</b>	<b>+5.6</b>
Change in working capital	-855	836	-1,691	354	
Net operating investments (gross CAPEX less disposals)	-4,805	-5,651	+846	-4,678	
<b>Free cash flow</b>	<b>305</b>	<b>1,514</b>	<b>-1,209</b>	<b>1,326</b>	<b>n.a.</b>
Allocation to dedicated assets, France	-210	-881	+671		
Net financial investments	3,610	-138	+3,748		
Dividends paid	-1,239	-1,193	-46		
Other changes <sup>(2)</sup>	-225	221	-446		
<b>(Increase)/ decrease in net indebtedness, excluding the impact of changes in scope of consolidation and exchange rates</b>	<b>2,241</b>	<b>-477</b>	<b>+2,718</b>		
Effect of change in scope of consolidation	2,582	15	+2,567		
Effect of change in exchange rates	413	-1,342	+1,755		
Effect of other non-monetary changes <sup>(3)</sup>	-53	-204	+151		
<b>(Increase)/Decrease in net indebtedness</b>	<b>5,183</b>	<b>-2,008</b>	<b>+7,191</b>		
<b>(Increase)/Decrease in net indebtedness of discontinued operations</b>	<b>-</b>	<b>404</b>	<b>-404</b>		
<b>Net indebtedness at beginning of period</b>	<b>34,389</b>	<b>42,496</b>			
<b>Net indebtedness at end of period</b>	<b>29,206</b>	<b>44,100</b>			

(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) Mainly the change in accrued interest on debt, contributions received on concessionary assets, investment subsidies and the payment to AREVA for decommissioning of the plant at La Hague (2011: €664 million paid in June, whereas in 2010 payment took place in July).

(3) Mainly corresponds to changes in fair value and accounting reclassifications affecting net indebtedness.

(4) Variation between H1 2010 adjusted and H1 2011.

In the table above:

- Figures for the first half-year (adjusted) are not reported after the Free cash flow: this is a less relevant notion as the items concerned are by nature closely related to disposals and changes in consolidation method.
- The decline in EnBW's net indebtedness is reported on a specific line in 2010 (discontinued operations), but this is not the case for RTE and the UK networks. Explanations of the variances between first-half 2010 (adjusted) and first-half 2011 therefore indicate the effects of the disposals undertaken in the United Kingdom and application of the equity method to RTE.

Compared to first-half 2010 (adjusted), the rise in cash flow from operations at June 30, 2011 (+5.6%) essentially reflects the increase in EBITDA (€475 million), while the decrease in the free cash flow (-€1,021 million) is principally explained by the advance received in April 2010 under the contract with the Exeltium consortium (€1,747 million) (see section 2.2.3.2), which had no equivalent in first-half 2011.

In the following analyses, comparisons are based on first-half 2010 (restated).

#### **4.1 Operating cash flow**

The operating cash flow declined to €5,965 million for first-half 2011 from its first-half 2010 level of €6,329 million.

This change essentially reflects the lower EBITDA (-€941 million), incorporating the impacts of the disposals in the United Kingdom and accounting for RTE by the equity method (-€1,416 million), and the variation in income taxes paid (€553 million), which were lower in 2011 due mainly to the differences in payments of outstanding tax for previous years.

The positive impacts of the €232 million increase in other items (including €188 million for the RTE dividend following application of the equity method to RTE in late 2010), and the lower financial expenses disbursed (€117 million) following the decline in average net indebtedness, are offset by the rise in non-monetary items (-€325 million), essentially related to fair value adjustments on hedging instruments.

#### **4.2 Change in working capital**

Working capital increased by €855 million over the first half of 2011.

This rise in working capital in first-half 2011 is caused by higher inventories (-€330 million), essentially located in France (-€235 million including -€109 million concerning nuclear fuels), and the increase in the CSPE receivable (- €451 million for EDF SA).

The increase in working capital in the first half of 2010 reflected the advance received under the contract with the Exeltium consortium (€1,747 million). Excluding this advance, the change at June 30, 2010 was -€911 million.

#### **4.3 Operating investments (Gross capex)**

Operating investments (gross capital expenditure) amounted to €4,883 million at June 30, 2011, €844 million (-14.7%) lower than for first-half 2010. In first-half 2010 they include investments by RTE (€513 million) and the UK networks (€462 million). Excluding these impacts, operating investments rose by €130 million or +2.7%.

Changes over the period in the Group's gross capital expenditure were as follows:

In millions of euros	H1 2011	H1 2010 (restated)	Variation	Variation (%)	H1 2010 (adjusted)
Network activities	1,315	1,726	-411	-23.8%	1,213
Deregulated activities	1,930	1,742	+188	+10.8%	1,742
Island activities	299	233	+66	+28.3%	233
<b>France</b>	<b>3,544</b>	<b>3,701</b>	<b>-157</b>	<b>-4.2%</b>	<b>3,188</b>
United Kingdom	397	894	-497	-55.6%	432
Italy	155	213	-58	-27.2%	213
Other International	194	256	-62	-24.2%	256
<b>Total International</b>	<b>746</b>	<b>1,363</b>	<b>-617</b>	<b>-45.3%</b>	<b>901</b>
<b>Other Activities</b>	<b>594</b>	<b>664</b>	<b>-71</b>	<b>-10.5%</b>	<b>664</b>
<b>Operating investments</b>	<b>4,883</b>	<b>5,728</b>	<b>-844</b>	<b>-14.7%</b>	<b>4,753</b>

Capital expenditure in **France** decreased by €157 million or -4.2%. Excluding the impact of application of the equity method to RTE, operating investments rose by €356 million (+11.2%). In the network activities, this increase is largely explained by ERDF's investments in connections for customers and producers. For the deregulated activities, the increase was concentrated in nuclear maintenance, mainly for asset maintenance and extension of the plants' useful lives. For the island activities, the increase is attributable to development investments for production capacities, which are being made in Guadeloupe (Pointe Jarry), Martinique (Bellefontaine) and Réunion island (Port Est).

**Outside France (International)**, the decline in operating investments was €617 million (-45.3%), mainly explained by sale of the networks in the United Kingdom.

In the **United Kingdom**, gross capital expenditure amounted to €497 million at June 30, 2011, 55.6% lower than in first-half 2010 due largely to the impact of disposal of the networks. Disregarding this factor, the decrease was mainly attributable to cuts in investments in the West Burton B CCGT, which is in a less capital-intensive construction phase than in first-half 2010, and lower investments during shutdowns in nuclear generation. This impact was partly offset by investments in the new nuclear program, which are continuing to rise.

In **Italy**, capital expenditure for the first half of 2011 was €58 million (27.2%) lower than for the same period of 2010. Edison registered a €38 million decrease resulting from a cutback in development operations for the electricity business, and the real estate investment in Milan in 2010, which had no equivalent in 2011. These effects are partly counterbalanced by higher development investments for hydrocarbons. Operating investments were also down at Fenice, due to the downturn in Italy.

In the **Other International** segment, capital expenditure for first-half 2011 was down by €62 million (-24.2%) compared to first-half 2010. Most of the decrease concerns the United States following reclassification of the Calvert Cliffs 3 project as in pre-development (see section 3.2.2.4). Operating investments were also lower in the Western Europe and Poland zones.

Capital expenditure in the **Other Activities** was down by €71 million (-10.5%). This change was mainly explained by a timing effect related to investments by EDF Energies Nouvelles, which will be particularly concentrated on the second half-year in 2011. Nevertheless, investments were up at Dalkia, EDF Trading and gas activities.

#### 4.4 Free cash flow

The Group's free cash flow at June 30, 2011 was positive at €305 million, compared to +€1,514 million for first-half 2010. The main factors were:

- operating cash flow of €5,965 million (see section 4.1);
- a decrease in working capital over the first half of 2011 (-€855 million, see section 4.2);
- gross capital expenditure of €4,883 million (see section 4.3).

The €1,209 million decrease compared to first-half 2010 results mainly from the advance received in April 2010 under the contract with the Exeltium consortium (€1,747 million) (see section 2.2.3.2), which had no equivalent in first-half 2011.

#### 4.5 Allocation to dedicated assets

In compliance with the French Law of June 28, 2006 on the sustainable management of radioactive materials and waste, EDF is continuing to build up a portfolio of dedicated assets to cover long-term nuclear commitments.

The cash allocation to dedicated assets in France for the first half of 2011 amounted to €210 million. The decrease compared to first-half 2010 (€671 million) is explained by the impacts of allocation of 50% of RTE shares (€2.3 billion) to dedicated assets, and article 20 of the NOME law (on France's new electricity market organization) which authorizes extension of the period for building up the dedicated asset portfolio to June 30, 2016.

#### 4.6 Net financial investments (excluding the allocation to dedicated assets)

The first half of 2011 was marked by a net financial divestment (excluding allocations to dedicated assets) of €3,610 million, comprising:

- gains on disposals (€4,608 million), primarily the receipt in February 2011 of €4,500 million for the sale of EnBW (the total sale price was €4,669 million including the €169 million payment already received in 2010),
- investments for external growth, mainly in France with the purchase and exchange offer for shares of EDF Energies Nouvelles (€1,292 million).

#### 4.7 Dividends

Dividends paid in cash (€1,239 million) comprise the balance of the 2010 dividends (€1,068 million) and the dividends paid by Group subsidiaries to their minority shareholders (€171 million), principally Centrica in the UK (€70 million). In first-half 2010, dividends paid in cash amounted to €1,193 million.

#### 4.8 Changes in scope of consolidation and foreign exchange effects

Changes in the scope of consolidation primarily result from deconsolidation of EnBW's financial debt, which contributed €2,591 million of the reduction in net indebtedness.

Foreign exchange effects (the fall of the US dollar and the pound sterling against the Euro<sup>26</sup>) accounted for € 413 million of the decrease in the Group's net indebtedness.

#### 4.9 Net indebtedness

The Group's net indebtedness stood at €29,206 million at June 30, 2011 compared to €34,389 million at December 31, 2010, thus decreasing by €5,183 million over the first half of the year.

The main factor in this decrease was the sale of EnBW (€7,091 million). It also includes the negative impact of the purchase and exchange offer for EDF Energies Nouvelles shares (-€1,292 million), and the final payment to AREVA for decommissioning of La Hague facility (-€664 million excluding taxes).

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<sup>26</sup> The US dollar fell by 7.5% against the Euro, from €0.7484/\$1 at December 31, 2010 to €0.6919/\$1 at June 30, 2011. The pound sterling fell by 4.6% against the Euro, from €1.1618/£1 at December 31, 2010 to €1.1080/£1 at June 30, 2011.

## 5 Management and control of market risks

The policy and principles for management and control of the Group's market risks are presented in Section 9.9 of the 2010 reference document. There have been no significant changes during the first half-year of 2011.

This chapter sets forth the main changes since December 31, 2010 in financial data concerning the management and control of market risks.

### 5.1 Management and control of financial risks

#### 5.1.1 Liquidity position and management of liquidity risks

##### 5.1.1.1 Liquidity position

At June 30, 2011, the Group's liquidities totaled €16,313 million compared to €14,114 million at December 31, 2010, and available credit lines amounted to €11,072 million compared to €11,085 million at December 31, 2010.

##### 5.1.1.2 Management of liquidity risks

The Group undertook no bond issues during the first half of 2011. The average maturity of consolidated debt was 8.4 years at June 30, 2011 compared to 8.6 years at December 31, 2010. EDF SA debt had average maturity of 9.9 years compared to 10.2 years at December 31, 2010. In April 2011, Edison made a drawing of €200 million on the €1.5 billion syndicated loan maturing in 2013. Edison set up a second syndicated loan for €700 million on June 13, 2011, maturing in December 2012, and €100 million was drawn on this loan in June 2011. No drawings were made during the first half of 2011 on any other syndicated loans available to EDF group entities.

### 5.1.2 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 June 30, 2011:

Company	Agency	Long-term rating	Short-term rating
EDF	Standard & Poor's	A+, stable outlook	A-1
	Moody's	Aa3, stable outlook	P-1
	Fitch Ratings	A+, stable outlook	F1
RTE-EDF Transport	Standard & Poor's	A+, stable outlook	A-1
EDF Trading	Moody's	A3, stable outlook	n.a
EDF Energy	Standard & Poor's	A, negative outlook <sup>(1)</sup>	A-1
	Moody's	A3, on negative watch	P-2
	Fitch Ratings	n.a <sup>(2)</sup>	n.a
Edison SpA	Standard & Poor's	BBB, on creditwatch <sup>(3)</sup>	A-2
	Moody's	Baa3, negative outlook <sup>(4)</sup>	n.a
	Fitch Ratings	BBB, on negative watch <sup>(5)</sup>	F2

(1) Taken off credit watch on January 28, 2011 with confirmation of rating as A, negative outlook.

(2) Fitch rating withdrawn at EDF Energy's request in February 2011.

(3) Changed from BBB, stable outlook to BBB, on creditwatch on June 21, 2011.

(4) Changed from Baa3, stable outlook to Baa3, negative outlook on June 17, 2011.

(5) Changed from BBB, negative outlook to BBB, on negative watch on May 11, 2011.

Since June 30, 2011, there have been changes to two Group entities' ratings. On July 7, 2011, the long-term Standard & Poor's rating for EDF was raised to AA- with a stable outlook. On July 11, 2011, EDF Energy withdrew from Standard & Poor's rating system.

### 5.1.3 Management of foreign exchange risk

The Group's gross debt at June 30, 2011 breaks down as follows by currency after hedging as defined by IFRS: 55% in euros, 28% in pounds sterling and 10% in US dollars. The balance of 7% includes the Swiss franc, the Hungarian forint, the Polish zloty, the Brazilian real, and the Japanese yen.

#### Gross debt structure by currency, before and after hedging

June 30, 2011 In millions of Euros	Initial debt structure	Impact of hedging instruments <sup>(1)</sup>	Debt structure after hedges	% of debt
EUR	28,962	-3,461	25,501	55%
USD	8,524	-3,620	4,904	10%
GBP	4,648	8,356	13,004	28%
Other currencies	4,669	-1,275	3,394	7%
<b>TOTAL DEBT</b>	<b>46,803</b>	<b>0</b>	<b>46,803</b>	<b>100%</b>

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

The table below presents the impact on equity of an unfavorable variation in exchange rates on the Group's gross debt at June 30, 2011.

#### Sensitivity of the Group's gross debt to foreign exchange rate risks

June 30, 2011 In millions of Euros	Debt after hedging instruments converted into Euros	Impact of a 10% unfavorable variation in exchange rates	Debt after a 10% unfavorable variation in exchange rates
EUR	25,501	-	25,501
USD	4,904	490	5,394
GBP	13,004	1,300	14,304
Other currencies	3,394	339	3,733
<b>TOTAL DEBT</b>	<b>46,803</b>	<b>2,129</b>	<b>48,932</b>

The table below sets forth the foreign exchange position after management relating to net non-operating investments in foreign currency of the Group's principal subsidiaries.

#### Net asset position

In millions of currency units	Net asset position after management at June 30, 2011	Net asset position after management at December 31, 2010
USD	1,098	1,227
CHF (Switzerland)	147	172
HUF (Hungary)	34,756	25,449
PLN (Poland)	994	566
GBP (United Kingdom)	2,951	2,068
BRL (Brazil)	714	686
CNY (China)	5,797	5,187

#### 5.1.4 Management of interest rate risk

The Group's debt after hedging instruments at June 30, 2011 was structured as follows: 78% of debt bore interest at fixed rates and 22% at floating rates (86% and 14% respectively at December 31, 2010).

A 1% uniform rise in interest rates would generate an increase of approximately €101 million in financial expenses at June 30, 2011, based on gross floating-rate debt after hedging.

The average cost of Group debt (weighted interest rate on outstanding amounts) was 4.2% at June 30, 2011 against 4.4% at December 31, 2010.

The table below sets forth the structure of Group debt and the impact of a 1% variation in interest rates at June 30, 2011.

#### Group debt structure and sensitivity to interest rate risks

June 30, 2011 In millions of euros	Initial debt structure	Impact of hedging instruments	Debt structure after hedges	Impact on net income of a 1% variation in interest rates
Fixed rate	39,609	-2,901	36,708	-
Floating rate	7,194	2,901	10,095	101
<b>Total debt</b>	<b>46,803</b>	<b>0</b>	<b>46,803</b>	<b>101</b>

#### 5.1.5 Management of equity risks

The equity risk is concentrated in the following areas:

##### Coverage of EDF's nuclear obligations

Analysis of the equity risk on coverage of EDF's nuclear obligations is presented below in section 5.1.6, "Management of financial risk on EDF's dedicated asset portfolio".

##### Coverage of employee benefit commitments for EDF, EDF Energy and British Energy

31.4% of the assets covering EDF's employee benefit obligations were invested in equities at June 30, 2011, corresponding to a total amount of €2,115 million of equities.

Also at June 30, 2011, the two pension funds set up by EDF Energy (EEGSG: EDF Energy Generation & Supply Group and EEPS: EDF Energy Pension Scheme) were invested to the extent of 33% in equities, representing an amount of £212 million of equities.

37% of the British Energy funds were invested in equities at June 30, 2011, corresponding to an amount of £1,214 million.

##### CENG fund

CENG is exposed to equity risks in the management of its funds established to cover nuclear plant decommissioning and employee benefit obligations.

##### EDF's long-term cash management

Over the first half-year of 2011 EDF continued to reduce the portion of equity-correlated liquid investments included in its long-term cash management instruments. At June 30, 2011 these investments amounted to a residual €6 million and were in the process of being sold.

## Direct investment securities

At June 30, 2011, EDF's investment in Veolia Environnement amounted to €400 million, with estimated volatility of 41.7% (annualized volatility of monthly returns observed over three years).

At the same date, EDF's investment in AREVA amounted to €221 million, with estimated volatility of 32.3% (annualized volatility of monthly returns observed over three years).

### 5.1.6 Management of financial risk on EDF's dedicated asset portfolio

#### EDF's dedicated asset portfolio: content and performance

At June 30, 2011, the overall value of the dedicated asset portfolio was €15,792 million (€15,815 million at December 31, 2010). Details of the portfolio contents are as follows:

	June 30, 2011	December 31, 2010
Equities sub-portfolio	41.7 %	43.0 %
Bonds sub-portfolio	42.7 %	42.3 %
Cash sub-portfolio	0.9 %	-
RTE – EDF Transport shares	14.7 %	14.7 %
<b>Total</b>	<b>100%</b>	<b>100%</b>

Details of portfolio performance are shown below:

	June 30, 2011 Stock market or realizable value (in millions of euros)	Performance at June 30, 2011		Dec 31, 2010 Stock market or realizable value (in millions of euros)	Performance at December 31, 2010	
		Portfolio	Benchmark index <sup>(1)</sup>		Portfolio	Benchmark index <sup>(1)</sup>
Equities sub-portfolio	6,583	- 0.81 %	+ 0.17 %	6,807	16.15%	14.03%
Bonds sub-portfolio	6,745	+ 1.23 %	- 0.01 %	6,683	2.50%	0.99%
Cash sub-portfolio	135	+ 0.48 %	+ 0.43 %	1	0.49%	0.44%
<b>Total portfolio excluding RTE</b>	<b>13,463</b>	<b>+ 0.22 %</b>	<b>+ 0.10 %</b>	<b>13,491</b>	<b>8.79%</b>	<b>7.60%</b>
RTE EDF Transport shares	2,329			2,324		
<b>Total dedicated asset portfolio</b>	<b>15,792<sup>(2)</sup></b>			<b>15,815</b>		

(1) Benchmark index: MSCI World DN hedged 50% in euros for the equities sub-portfolio, Citigroup EGBI for the bonds sub-portfolio, Eonia Capitalisé for the cash sub-portfolio, 50% MSCI World DN hedged 50% in euros + 50% Citigroup EGBI for the total portfolio.

(2) The portfolio's stock market value or realizable value includes foreign exchange hedges, which explain the difference from the book value of dedicated assets.

After the very strong performances in 2010, particularly in the US and Asia and emerging countries, the equity markets saw significant geographical and sector rotation in the first half of 2011. Equity markets in Asia and emerging countries registered significant profit-taking and withdrawals. Japanese equities were affected by the tsunami and the Fukushima accident, and geopolitical crises in North Africa and the Middle East also influenced the markets. In this troubled environment, the expectation of a slowdown in economic growth gradually took hold. The US market stood up relatively well, and growth partly caught up on the European market after lagging behind in 2010.

Against this background, the “equities” sub-portfolio’s performance was slightly below its benchmark, while the “bonds” sub-portfolio noticeably outperformed its benchmark thanks to very broad diversification into inflation-linked bonds, and “investment grade” and international euro credit. The gradual move towards a greater portion of bonds enabled the Group to register an overall positive performance (+0.22%) for the first half-year of 2011, slightly above the composite benchmark (+0.10%).

The market value of the “equities” sub-portfolio in EDF’s dedicated asset portfolio was €6,583 million at June 30, 2011. The volatility of the “equities” sub-portfolio can be estimated on the basis of the volatility of the benchmark index, the MSCI World index hedged 50% in Euros, which at June 30, 2011 was 11.65% based on 52 weekly performances. 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 €767 million. This volatility is likely to affect the Group’s equity.

At June 30, 2011, the sensitivity of the bond sub-portfolio (€6,745 million) was 4.72, i.e. a uniform 100 base point rise in interest rates would result in a €318 million decline in market value, which would be recognized in Group equity. This bond sub-portfolio sensitivity was 4.65 at December 31, 2010.

### 5.1.7 Management of counterparty/credit risk

The table below gives details, by rating, of the EDF group’s consolidated exposure to counterparty risk at March 31, 2011. 86% of the main counterparties for the Group’s business still qualify as “investment grade”, a stable proportion compared to the consolidated risk for December 2010.

	AAA	AA	A	BBB	BB	B	CCC/C	Unrated	Total
At March 31, 2011	12%	23%	44%	5%	2%	0%	0%	14%	100%
At December 31, 2010	12%	23%	42%	7%	1%	0%	0%	15%	100%

The exposure to counterparty risk by nature of activity is distributed as follows:

	Purchases	Insurance	Sales and distribution	Cash and asset management	Energy purchases and trading	Total
At March 31, 2011	5%	34%	7%	43%	11%	100%
At December 31, 2010	6%	35%	7%	40%	12%	100%

### 5.2 Management and control of energy market risks

This section presents the main changes in energy market risks affecting the Group since December 31, 2010.

The principles for management and control of energy market risks are unchanged from December 31, 2010. They are presented in section 9.9.2.3 of the 2010 reference document.

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.

The principles for management of the Group’s energy market risks presented above are unaffected by the Group’s disposal of its investment in EnBW. They are now applied in SPE and CENG (in respect of EDF’s share of energy).

The table below shows values for the risk indicators used to monitor EDF Trading's markets commitments for the first half-year of 2011 and the second half-year of 2010.

The stop-loss was not triggered during the first half-year of 2011.

<b>In millions of Euros</b>	<b>H1 2011</b>	<b>H1 2010</b>
VaR limit (97.5% 1-day)	45	45
Stop-loss limit	225	225
Minimum VaR	4.7	3.8
Average VaR	10.4	7.3
Maximum VaR	18.7	11.3

## 6 Transactions with related parties

The types of transaction undertaken with related parties are described in note 25 to the condensed consolidated first-half financial statements at June 30, 2011.

## 7 Principal risks and uncertainties for the second half of 2011

The principal risks and uncertainties to which the EDF group considers itself exposed are described in section 4.1 of the 2010 reference document.

The EDF group policies for risk management and control are described in section 4.2 of the 2010 reference document.

This presentation of the major risks remains valid at the date of publication of this report for assessment of the principal risks and uncertainties for the second half of 2011, and the Group remains subject to the usual risks specific to its business.

## 8 Significant events related to litigation in process

Litigations concerning the EDF group are described in section 20.5 of the 2010 reference document. This chapter reports on litigations which have seen significant developments since the release of the 2010 reference document.

### 8.1 National Association of Independent Producers and Heat Engineers (SNPIET)

On December 1, 2010, France's National Association of Independent Producers and Heat Engineers (*Syndicat National des Producteurs Indépendants d'Electricité Thermique* – SNPIET) filed a complaint with the French Competition Authority and an application for interim measures. SNPIET alleges that EDF and RTE EDF Transport used anticompetitive practices in order to exclude independent producers belonging to SNPIET from the tender offers initiated by RTE EDF Transport in 2005 and 2007 for express and complementary stock, and negotiation of electricity purchase contracts with EDF on the free market with no purchase obligations. After discussions involving both parties, a French Competition Authority hearing on the merits of the case and the application for interim measures was held on May 10, 2011. In a decision of June 8, 2011, the Competition Authority rejected SNPIET's complaint and application due to lack of supporting evidence. SNPIET had one month from notification of this decision to lodge an appeal with the Paris Court of Appeal.

### 8.2 Fessenheim

Certain associations petitioned the French Ministers in charge of nuclear safety (the Minister for the Economy and the Minister for Energy) to order permanent shutdown and dismantling of the nuclear power plant at Fessenheim, France. This request was founded on article 34 of French law 2006-686 of June 13, 2006 relating to transparency and safety in nuclear matters; under this law, when no other course of action is possible the French Council of State may, after consultation with the Nuclear Safety Authority, issue a decree ordering permanent shutdown and dismantling of a nuclear power plant that involves serious risks.

After the dismissal of this petition by the Ministers, the petitioners filed an appeal with the Strasbourg Administrative Tribunal on December 10, 2008, which was rejected on March 9, 2011. The petitioners appealed this decision on May 4, 2011.

### **8.3 Discharge at Flamanville**

On November 15, 2006 EDF applied to France's Nuclear Safety Authority (ASN) for authorization 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, for which authorization was granted by decree 2007-534 of April 10, 2007.

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 July 7, 2010, approved by the ministers in charge of nuclear safety on September 15, 2010. A local association CRILAN filed a petition for cancellation of this decision with the Caen Administrative Court on March 23, 2011. The French State and EDF are both preparing their defense arguments, and will file their respective statements in autumn 2011.

### **8.4 Packaging and interim storage installation for radioactive waste (ICEDA)**

Decree 2010-402 of April 23, 2010 authorized EDF to establish a regulated nuclear installation, specifically a packaging and interim storage installation for radioactive waste (*Installation de Conditionnement et d'Entreposage de Déchets Activés* – ICEDA), on land belonging to the town of Saint-Vulbas in France's Ain region. 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. The defense statements were submitted by the French State and EDF in mid-January 2011.

Roozen has also filed two petitions with the Lyon Administrative Court, against the decision of February 22, 2010 in which the Ain local administrative authority (Préfet) granted the ICEDA building permit. The first of these petitions was filed on April 21, 2010 and sought cancellation of the building permit. The French State and EDF filed their defense statement in mid-July 2010. The second petition, dated November 25, 2010, requested an emergency injunction to suspend the building permit. This petition was dismissed by an order of the Lyon Administrative Court on December 13, 2010, and on May 24, 2011 the Council of State rejected the resulting appeal lodged by Roozen. This litigation is therefore now closed.

### **8.5 Statoil**

On February 14, 2003 EDF and Statoil signed a 15-year natural gas supply contract. In January 2009, an index included in the contractual price calculation ceased to be published, and EDF and Statoil began discussions over its replacement. After the new index to use was determined by an independent expert, the parties signed an agreement on May 30, 2011 ending their dispute over the date for retroactive application of this new index.

### **8.6 Proceedings concerning EDF subsidiaries and investments - BE ZRT**

Following an investigation relating to the European regulations on State aid, on June 4, 2008 the European Commission issued a decision requiring the Hungarian Government to terminate existing long-term electricity purchase agreements (PPAs) by the end of 2008, and the electricity producers to refund by April 2009 any amounts of State aid received since May 1, 2004, the date on which Hungary joined the European Union.

BE ZRT decided to appeal this European Commission decision before the European Court on May 4, 2009. The proceedings are still ongoing. The Hungarian Government did not challenge the European Commission's decision, and the Hungarian legislator enacted a law on November 10, 2008 for termination on December 31, 2008 of all PPAs. In late April 2010, the European Commission and the Hungarian government accepted the principle of netting stranded costs with the State aid paid, and as a result BE ZRT had no illegal State aid to repay.

In order to pursue its business after termination of its PPAs, BE ZRt negotiated an 8-year sales contract with MVM (the state-owned sole Hungarian buyer) for half of its electricity output, and benefited from the “Cogen decree”<sup>27</sup> for the sale of the other half of its output, for a period due to run until 2013. However, on March 16, 2011 Hungary adopted an amendment to the law on electricity ending support for cogeneration in Hungary from July 2011.

EDF International, whose investment in BE ZRt was undertaken after the company's privatization on specific terms that are now in question, sent a notice of arbitration to the Hungarian State on May 12, 2009 founded on the Energy Charter Treaty (ECT), in accordance with UNCITRAL regulations. These arbitration proceedings were postponed to October 1, 2011 following several successive agreements reached before EDF International filed its statement.

Negotiations are in process between EDF International and the Hungarian government to reach an amicable solution.

### **8.7 Proceeding concerning the sale of Ausimont**

On completion of the preliminary investigation opened by the Public Prosecutor of Pescara into a suspected case of water pollution and ecological disaster affecting the river Aterno basin at Bussi sul Tirino, the site of an industrial complex belonging to Ausimont SpA that was sold to Solvay Solexis SpA in 2002, the Prosecutor notified certain former directors and managers of Solvay Solexis and Edison that the case would go to court on charges of water poisoning, ecological disaster and fraud to the prejudice of the site's purchaser.

Charges against MontEdison (now Edison) were dropped on December 15, 2009, but the proceedings on the matters of environmental disaster and poisoning continued. In a decision of May 10, 2011, the judge at the preliminary hearing reclassified the water poisoning charges as “water adulteration” charges which incur lower sentences and potential financial damages.

In this context, an attachment order was placed on a plot of land belonging to Edison adjacent to the industrial plant, where a large quantity of industrial waste was found. By order of October 4, 2007, the President of the Italian Council of Ministers appointed a deputy special commissioner empowered to undertake urgent measures: identification, safety and rehabilitation measures for the land. The commissioner ordered Edison to prepare a characterization plan of the zone, take urgent measures to make it safe and present proposals for decontamination of the ground and ground water. Edison, which has never used this site for its business, filed an appeal with the Regional Administrative Court in June 2008.

### **8.8 Casino**

The announcement by the French Ministry of Ecology, Energy, Sustainable Development and the Sea in autumn 2009 of a decrease in the photovoltaic electricity purchase prices set by the order of July 10, 2006, caused an upsurge in applications for purchase contracts that is likely to generate a very significant increase in costs to be compensated by the CSPE. The French Government therefore decided, by an order of January 12, 2010, to modify both the purchase prices of electricity generated from photovoltaic energy and their terms of application.

Several producers, including the Green Yellow companies, subsidiaries of the retail group Casino, then decided to bring proceedings against EDF, asking the courts to order EDF to purchase the generated electricity at the more favorable tariff conditions set out by the previous order of July 10, 2006.

In a judgment of July 11, 2011, the Paris Commercial Court ruled that the purchase contracts concerned by this dispute should be deemed to exist as soon as EDF receives the completed contract application. The Court thus considered that for contracts meeting this requirement, the plaintiffs are entitled to the tariffs set in the order of July 10, 2006. On July 20, 2011, EDF appealed against this judgment.

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<sup>27</sup> Decree setting out terms including the tariff for renewable energies and cogeneration, adopted by the Hungarian Government on November 28, 2008, known as the “Cogen” decree.

## 9 Financial outlook

The Group can confirm its financial objectives for 2011:

- Organic growth in EBITDA of between 4% and 6%<sup>28</sup>,
- Net indebtedness/EBITDA ratio of between 2.1 and 2.3<sup>29</sup>x, including the impact of the EDF Energies Nouvelles operation.
- Dividend for 2011 at least equal to the dividend paid for 2010.

In view of the sustained investments planned for the next 5 years, the increased selectivity in development projects and the savings made through the Group's Synergies and Transformation, the Group has set itself the following financial objectives for the period 2011-2015:

- Average annual growth in EBITDA<sup>30</sup> of between 4% and 6%,
- Average annual growth in net income excluding non-recurring items of between 5% and 10%,
- Net indebtedness/EBITDA ratio for the period of less than 2.5 x,
- A dividend distribution rate for the period of between 55% and 65%.

These objectives exclude the effects of regulatory changes following the nuclear accident in Japan.

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<sup>28</sup> Growth based on constant scope of consolidation and exchange rates, excluding the impact of the decision of July 4, 2011 concerning non-recurring compensation for TaRTAM transition tariff expenses. This objective includes the initial ARENH price set by governmental decision of April 19, 2011 at €40/MWh at July 1, 2011 then €42/MWh at January 1, 2012.

<sup>29</sup> Excluding any external growth operation.

<sup>30</sup> Growth based on constant scope of consolidation and exchange rates.