Electricité de France S.A.

Statutory Auditors' Report on the consolidated financial statements

Year ended December 31, 2011
Electricité de France S.A.
22 – 30, avenue de Wagram – 75008 Paris

This is a free translation into English of the Statutory Auditors' report on the consolidated financial statements issued in French and is provided solely for the convenience of English speaking readers.

This Statutory Auditors' report includes information specifically required by French law in such reports, whether qualified or not. This information is presented below the audit opinion on the consolidated financial statements and includes an explanatory paragraph discussing the auditor's assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions, or disclosures.

The report also includes information relating to the specific verification of information given in the Group's management report.

This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.

Electricité de France S.A.

22 – 30, avenue de Wagram – 75008 Paris

Statutory Auditors' Report on the consolidated financial statements

Year ended December 31, 2011

To the Shareholders,

Following our appointment as Statutory Auditors by your Annual General Meeting, we hereby report to you, for the year ended December 31, 2011 on:

- the audit of the accompanying consolidated financial statements of Electricité de France S.A. ("the Group");
- the justification of our assessments;
- the specific verification required by law.

The consolidated financial statements have been approved by the Board of Directors. Our role is to express an opinion on these consolidated financial statements based on our audit.

1 Opinion on the consolidated financial statements

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, using sample testing techniques or other selection methods, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting policies used and significant accounting estimates made, as well as the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities, and of the financial position of the Group as of December 31, 2011 and of the results of its operations for the year then ended in accordance with IFRS as adopted by the European Union.

Without qualifying our opinion, we draw your attention to the valuation of long-term provisions relating to nuclear electricity production, which results from management's best estimates and assumptions as described in notes 1.3.2.1 and 30 to the consolidated financial statements. This valuation is sensitive to the assumptions made concerning technical processes, costs, inflation rates, long-term discount rates, and forecast cash outflows. Changes in these parameters could lead to a material revision of the level of provisioning.

2 Justification of assessments

The preparation of the consolidated financial statements requires the use of accounting estimates, which have been made in an uncertain environment, due to the crisis of public finances affecting certain countries of the Euro zone. This crisis is coupled with an economic and liquidity crisis as well as uncertainties related to commodities and power prices, thus resulting in difficulties to determine the economic outlook. In this context, in accordance with the requirements of article L. 823-9 of the French commercial Code, we have made our own assessments which are brought to your attention, in relation to the following matters:

Accounting policies

We have verified the appropriateness of the disclosures presented in notes 1.3.29.1 with respect to the accounting treatments of greenhouse gas emission quotas, an area which is not mandatory or specifically addressed in IFRS as adopted in the European Union as of December 31, 2011.

Management judgments and estimates

Note 1.3.2 to the consolidated financial statements describes the main sensitive accounting policies for which management makes significant estimates and assumptions and exercises judgment, based on macro-economic assumptions appropriate to the very long-term cycle of Group assets. Particularly, notes 1.3.26 and 15, 14, 33 and 45 present respectively the information related to:

- the obligations regarding the French public distribution of electricity and, particularly, the impact of the change in estimate related to the useful life of certain assets which occurred in 2011;

- The impairment charges that have been recognized during the period as well as the main assumptions and indicators of impairment used to test goodwill and long-lived assets;

- The other provisions and contingent liabilities.

Our procedures consisted in assessing these estimates, the data and assumptions, and as applicable, the legal opinions on which they are based, reviewing, on a test basis, the technical data and calculations performed by the Group, comparing accounting estimates of prior periods with corresponding actual amounts, reviewing the procedures for approving these estimates by management and finally verifying that the notes to the consolidated financial statements provide appropriate disclosures.

Verification procedures

Note 4.1 to the consolidated financial statements describes the regulatory framework related to the principle of regulated access to historical nuclear energy (*Accès Regulé à l'Energie Nucléaire Historique* or *ARENH*) as established by the Nome Law in France, that is effective July 1, 2011. The procedures we performed in relation to these transactions are based upon, on the one hand, the information available from the Group, or released by the Regulatory Energy Commission (*Commission de Régulation de l'Energie)*, and, on the other hand, the findings resulting from agreed-upon procedures performed by independent third parties that had access to the underlying transactions.

These assessments were made as part of our audit of the consolidated financial statements taken as a whole and contributed to the opinion we formed which is expressed in the first part of this report.

3 Specific verification

As required by law we have also verified, in accordance with professional standards applicable in France, the information relating to the Group, given in the management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

Paris La Défense and Neuilly-sur-Seine, February 15, 2012

The Statutory Auditors

KPMG Audit ***Department of KPMG S.A.***		**Deloitte & Associés**	
Bernard Cattenoz	Jacques-François Lethu	Alain Pons	Patrick E. Suissa

CONSOLIDATED FINANCIAL STATEMENTS

AT DECEMBER 31, 2011

(These financial statements will be submitted for approval by the general shareholders' meeting of May 24, 2012)

Consolidated Income Statements

(in millions of Euros)	Notes	2011	2010 [1]
Sales	7	65,307	65,320
Fuel and energy purchases	8	(30,195)	(26,176)
Other external expenses	9	(9,931)	(10,582)
Personnel expenses	10	(10,917)	(11,422)
Taxes other than income taxes	11	(3,101)	(3,227)
Other operating income and expenses	12	3,661	3,090
Prolongation of the transition tariff system (TaRTAM) - Laws of June 7 and December 7, 2010	13	-	(380)
Operating profit before depreciation and amortization		**14,824**	**16,623**
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities		(116)	15
Net depreciation and amortization		(6,285)	(7,426)
Net increases in provisions for renewal of property, plant and equipment operated under concessions		(221)	(428)
(Impairment) / reversals	14	(640)	(1,743)
Other income and expenses	15	724	(801)
Operating profit		**8,286**	**6,240**
Cost of gross financial indebtedness	16.1	(2,271)	(2,754)
Discount effect	16.2	(3,064)	(3,134)
Other financial income and expenses	16.3	1,555	1,462
Financial result	16	**(3,780)**	**(4,426)**
Income before taxes of consolidated companies		**4,506**	**1,814**
Income taxes	17	(1,305)	(1,079)
Share in income of associates	24	45	134
Net income of discontinued operations		-	380
Group net income		**3,246**	**1,249**
EDF net income		***3,010***	***1,020***
Net income of continuing operations		3,010	634
Net income of discontinued operations		-	386
Net income attributable to non-controlling interests		***236***	***229***
Net income of continuing operations		236	235
Net income of discontinued operations		-	(6)
Earnings per shares in Euros:	18		
Net earnings per share		**1.63**	**0.55**
Diluted earnings per share		**1.63**	**0.55**
Net earnings per share of continuing operations		**1.63**	**0.34**
Diluted earnings per share of continuing operations		**1.63**	**0.34**

(1) Figures for 2010 have been restated for the impact of the change in presentation of EDF Luminus' optimization activities (see note 2).

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

(in millions of Euros)	Notes	2011	2010
Group net income		**3,246**	**1,249**
Changes in the fair value of available-for-sale financial assets (1)	**37.2.2**	(740)	816
Changes in the fair value of available-for-sale financial assets transferred to income on sale(2)		80	131
Changes in the fair value of hedging instruments (3)	**42.4**	(1,637)	24
Changes in the fair value of hedging instruments transferred to income on sale		377	296
Translation adjustments(4)		676	2,013
Taxes(5)		437	(521)
Gains and losses recorded directly in equity		**(807)**	**2,759**
Net income and gains and losses recorded directly in equity		**2,439**	**4,008**
EDF net income		***2,130***	***3,679***
EDF net income, continuing operations		2,130	3,212
EDF net income, discontinued operations		-	467
Net income attributable to non-controlling interests		***309***	***329***
Net income attributable to non-controlling interests, continuing operations		309	332
Net income attributable to non-controlling interests, discontinued operations		-	(3)

(1) EDF's share amounts to €(740) million for 2011 (€818 million for 2010).
(2) Including €(147) million attributable to the sale of EnBW in 2011.
(3) EDF's share amounts to €(1,680) million for 2011 (€41 million for 2010).
(4) EDF's share amounts to €632 million for 2011 (€1,894 million for 2010).
(5) Taxes break down as follows:

(in millions of Euros)	2011	2010
Taxes on changes in the fair value of available-for-sale financial assets	176	(319)
Taxes on changes in the fair value of hedging instruments	261	(202)
Total	**437**	**(521)**

Consolidated Balance Sheets

ASSETS (in millions of Euros)	Notes	12.31.2011	12.31.2010
Goodwill	19	11,648	12,028
Other intangible assets	20	4,702	4,616
Property, plant and equipment operated under French public electricity distribution concessions	21	45,501	43,905
Property, plant and equipment operated under concessions for other activities	22	6,022	6,027
Property, plant and equipment used in generation and other tangible assets owned by the Group	23	60,445	57,268
Investments in associates	24	7,684	7,854
Non-current financial assets	37	24,517	24,921
Deferred tax assets	17.3	2,507	2,125
Non-current assets		**163,026**	**158,744**
Inventories	25	13,581	12,685
Trade receivables	26	20,908	19,524
Current financial assets	37	16,980	16,788
Current tax assets		459	525
Other receivables	27	10,309	9,319
Cash and cash equivalents	38	5,743	4,829
Current assets		**67,980**	**63,670**
Assets classified as held for sale	46	701	18,145
Total assets		**231,707**	**240,559**

EQUITY AND LIABILITIES (in millions of Euros)	Notes	12.31.2011	12.31.2010
Capital	28	924	924
EDF net income and consolidated reserves		29,646	30,393
Equity (EDF share)		**30,570**	**31,317**
Equity (non-controlling interests)		4,337	5,586
Total equity	28	**34,907**	**36,903**
Provisions related to nuclear generation – Back-end nuclear cycle, plant decommissioning and last cores	30	37,198	35,630
Provisions for decommissioning of non-nuclear facilities	31	809	753
Provisions for employee benefits	32	12,215	11,745
Other provisions	33	1,338	1,337
Non-current provisions	29	**51,560**	**49,465**
Special French public electricity distribution concession liabilities for existing assets and assets to be replaced	34	41,769	41,161
Non-current financial liabilities	39.1	42,688	40,646
Other liabilities	36	4,989	4,965
Deferred tax liabilities	17.3	4,479	4,894
Non-current liabilities		**145,485**	**141,131**
Provisions	29	3,968	5,010
Trade payables	35	13,681	12,805
Current financial liabilities	39.1	12,789	12,766
Current tax liabilities		571	396
Other liabilities	36	19,900	18,674
Current liabilities		**50,909**	**49,651**
Liabilities related to assets classified as held for sale	46	406	12,874
Total equity and liabilities		**231,707**	**240,559**

Consolidated Cash Flow Statements

(in millions of Euros)	Notes	2011	2010 (1)
Operating activities:			
Income before taxes of consolidated companies		**4,506**	**1,814**
Impairment		640	1,743
Accumulated depreciation and amortization, provisions and change in fair value		7,325	9,858
Financial income and expenses		1,117	1,918
Dividends received from associates		334	112
Capital gains/losses		(686)	164
Change in working capital		(1,785)	(335)
Net cash flow from operations		**11,451**	***15,274***
Net financial expenses disbursed		(1,623)	(2,197)
Income taxes paid		(1,331)	(1,967)
Net cash flow from operating activities		**8,497**	**11,110**
Investing activities:			
Acquisition/disposal of companies, net of cash acquired/transferred (2)		3,624	3,398
Purchases of property, plant and equipment and intangible assets		(11,134)	(12,241)
Net proceeds from sale of property, plant and equipment and intangible assets		497	188
Changes in financial assets		222	(6,272)
Net cash flow used in investing activities		**(6,791)**	**(14,927)**
Financing activities:			
Transactions with non-controlling interests (3)		(1,324)	(59)
Dividends paid by parent company	**28.3**	(2,122)	(2,163)
Dividends paid to non-controlling interests		(261)	(190)
Treasury shares		(14)	(10)
Cash flows with shareholders		***(3,721)***	***(2,422)***
Issuance of borrowings		5,846	8,642
Repayment of borrowings		(4,071)	(4,652)
Funding contributions received for assets operated under concessions		194	231
Investment subsidies		161	149
Other cash flows from financing activities		***2,130***	***4,370***
Net cash flow from financing activities		**(1,591)**	**1,948**
Cash flows from continuing operations		**115**	**(1,869)**
Cash flows from discontinued operations (4)		**-**	**357**
Net increase/(decrease) in cash and cash equivalents		**115**	**(1,512)**
Cash and cash equivalents - opening balance (4)		**5,567**	**6,982**
Net increase/(decrease) in cash and cash equivalents		115	(1,512)
Effect of currency fluctuations		54	76
Financial income on cash and cash equivalents		44	29
Effect of reclassifications		(37)	(8)
Cash and cash equivalents - closing balance (4)		**5,743**	**5,567**

(1) In application of IFRS 5, the net change in cash flows from discontinued operations (concerning EnBW in 2010) is reported on a separate line in the cash flow statements for the years presented.

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

(3) Contributions via capital increases or reductions and acquisitions of additional interests in controlled companies.
In 2011, the acquisition of additional interests of EDF Energies Nouvelles shares accounts for €(1,462) million (see notes 3.2 and 28.2).

(4) The net change in cash and cash equivalents breaks down as follows:

(in millions of Euros)	Continuing operations	Discontinued operations	Total
Cash and cash equivalents - opening balance 2010	**6,429**	**553**	**6,982**
Net cash flow from operating activities	11,110	1,072	12,182
Net cash flow used in investing activities	(14,927)	(673)	(15,600)
Net cash flow from financing activities	1,948	(42)	1,906
Net increase/(decrease) in cash and cash equivalents	**(1,869)**	**357**	**(1,512)**
Effect of currency fluctuations	70	6	76
Financial income on cash and cash equivalents	23	6	29
Effect of reclassifications	6	(14)	(8)
Dividends paid by discontinued operations	170	(170)	-
Cash and cash equivalents - opening balance 2011	**4,829**	**738**	**5,567**
Net cash flow from operating activities	8,497	-	8,497
Net cash flow used in investing activities	(6,791)	-	(6,791)
Net cash flow from financing activities	(1,591)	-	(1,591)
Net increase/(decrease) in cash and cash equivalents	**115**	**-**	**115**
Effect of currency fluctuations	54	-	54
Financial income on cash and cash equivalents	44	-	44
Effect of reclassifications	(37)	-	(37)
Cash transferred in the sale of discontinued operations	738	(738)	-
Cash and cash equivalents - closing balance 2011	**5,743**	**-**	**5,743**

Changes in Consolidated Equity

(in millions of Euros)	Capital	Consolidated reserves and net income	Treasury shares	Translation adjustments	Impact of fair value adjustment of financial instruments (1)	Equity (EDF share)	Equity (non-controlling interests)	Total equity
Equity at 12.31.2009	**924**	**30,627**	**26**	**(1,320)**	**(366)**	**29,891**	**4,776**	**34,667**
Gains and losses recorded directly in equity(2)	-	-	-	1,894	765	**2,659**	100	**2,759**
Net income	-	1,020	-	-	-	**1,020**	229	**1,249**
Net income and gains and losses recorded directly in equity	**-**	**1,020**	**-**	**1,894**	**765**	**3,679**	**329**	**4,008**
Dividends paid	-	(2,163)		-	-	**(2,163)**	(208)	**(2,371)**
Purchases/sales of treasury shares	-	-	(9)	-	-	**(9)**	-	**(9)**
Other changes(3)	-	(15)	(36)	(31)	1	**(81)**	689	**608**
Equity at 12.31.2010	**924**	**29,469**	**(19)**	**543**	**400**	**31,317**	**5,586**	**36,903**
Gains and losses recorded directly in equity	-	-	-	632	(1,512)	**(880)**	73	**(807)**
Net income	-	3,010	-	-	-	**3,010**	236	**3,246**
Net income and gains and losses recorded directly in equity	-	**3,010**	-	**632**	**(1,512)**	**2,130**	**309**	**2,439**
EDF capital increase (4)	6	300	(324)	-	-	**(18)**	-	**(18)**
EDF capital reduction (4)	(6)	(318)	324	-	-	**-**	-	**-**
Dividends paid (5)	-	(2,122)	-	-	-	**(2,122)**	(262)	**(2,384)**
Purchases/sales of treasury shares	-	-	(7)	-	-	**(7)**	-	**(7)**
Other changes (6)	-	(769)	-	-	39	**(730)**	(1,296)	**(2,026)**
Equity at 12.31.2011	**924**	**29,570**	**(26)**	**1,175**	**(1,073)**	**30,570**	**4,337**	**34,907**

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

(2) Following the sale of the network activities in the United Kingdom, income and expenses recorded in equity in 2010 incorporate a positive €395 million effect (€732 million in translation adjustments and €(337) million for fair value adjustment of financial instruments) resulting from the transfer to income of translation adjustments net of hedges of net investments.

(3) Other changes attributable to non-controlling interests include in 2010 an amount of €658 million relating to minority shareholdings in EDF Luminus.

(4) EDF's capital increase and reduction operations are associated with the simplified alternative public cash or exchange offer for EDF Energies Nouvelles shares (see notes 3.2 and 28.2).

(5) Including 2011 interim dividends of €1,053 million and the balance of the 2010 dividends amounting to €1,069 million.

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

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Notes to the consolidated financial statements

Electricité de France (EDF or the "Company") is a French *société anonyme* governed by French Law, and registered in France.

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

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

The Group's consolidated financial statements at December 31, 2011 were prepared under the responsibility of the Board of Directors and approved by the Directors at the Board meeting held on February 15, 2012. They will become final after approval at the General Shareholders' Meeting to be held on May 24, 2012.

Three major operations of 2010 concerning the Group's scope of activity affect the comparability of the financial statements presented in this report:
- the sale of the British regulated and deregulated distribution networks on October 29, 2010;
- the sale of EnBW, approved by the Board of Directors on December 6, 2010 and finalized on February 17, 2011;
- application of the equity method for Réseau de Transport d'Electricité (RTE) from December 31, 2010.

1 Group accounting standards

1.1 Declaration of conformity and Group accounting policies

Pursuant to European regulation 1606/2002 of July 19, 2002 on the adoption of international accounting standards, the EDF group's consolidated financial statements for the year ended December 31, 2011 are prepared under the international accounting standards published by the IASB and approved by the European Union for application at December 31, 2011. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and interpretations (SIC and IFRIC).

The comparative information presented in the notes to the 2010 consolidated financial statements has been restated for the impact of changes in presentation applied to EDF Luminus' optimization activities (see note 2).

1.2 Changes in accounting methods at January 1, 2011

The accounting and valuation methods applied by the Group in the consolidated financial statements for the year ended December 31, 2011 are identical to those used in the consolidated financial statements for the year ended December 31, 2010, with the exception of standards endorsed by the European Union in 2009, 2010 and 2011 that became mandatory on or after January 1, 2011.

The following standards and interpretations have been endorsed by the European Union and their application is mandatory as of January 1, 2011:
- revised IAS 24, "Related Party Disclosures";
- IFRIC 19, "Extinguishing Financial Liabilities with Equity Instruments";
- amendment on "Classification of Rights Issues" to IAS 32, "Financial Instruments: Presentation";
- amendments on "Limited Exemption from Comparative IFRS 7 Disclosures for First-time Adopters" to IFRS 1;
- amendments on "Prepayments of a minimum funding requirement" to IFRIC 14;
- annual improvements to IFRS (2008-2010).

Application of these standards, interpretations and amendments has not had a significant impact on the EDF group's consolidated financial statements.

The Group has decided against early application of the amendments to IFRS 7, "Financial instruments: disclosures – Transfers of financial assets" adopted by the European Union in 2011, which are not yet mandatory.

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

The Group has not applied the following standards, amendments and interpretations, which are expected to be approved by the European Union in 2012 at the earliest:

- standards concerning consolidation adopted by the IASB in 2011, namely:
    - IFRS 10 "Consolidated financial statements";
    - IFRS 11 "Joint arrangements";
    - IFRS 12 "Disclosure of interests in other entities";
    - IAS 27 (2011) "Separate financial statements";
    - IAS 28 (2011) "Investments in associates and joint ventures";
- IFRS 13 "Fair value measurement";
- IFRIC 20 "Stripping Costs in the Production Phase of a Surface Mine";
- amendments to IAS 1 entitled "Presentation of items of other comprehensive income (OCI)";
- amendments to IAS 12 entitled "Deferred Tax: Recovery of Underlying Assets";
- amendments to IAS 19 "Employee benefits" on defined-benefit plans;
- amendments to IFRS 1 entitled "Severe hyperinflation and removal of fixed dates for first-time adopters";
- amendments to IAS 32 on Offsetting Financial Assets and Financial Liabilities;
- amendments to IFRS 7 on disclosures concerning offsetting of financial assets and financial liabilities.

The potential impact of all of these standards, amendments and interpretations is under assessment.

Finally, as part of the ongoing overhaul of IAS 39, the IASB adopted a new standard, IFRS 9, "Financial instruments -Phase 1, Classification and Measurement" in November 2009. Under current regulations, as this standard has not yet been adopted by the European Union, it cannot be applied early for the year ended December 31, 2011.

1.3 Summary of the principal accounting and valuation methods

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

1.3.1 Valuation

The consolidated financial statements are based on historical cost valuation, with the exception of certain financial instruments, which are stated at fair value.
The methods used to determine the fair value of these instruments are presented in note 1.3.17.

1.3.2 Management judgments and estimates

The preparation of the financial statements requires the use of judgments, best estimates and assumptions in determining the value of assets and liabilities, income and expenses recorded for the period, and positive and negative contingencies existing at year-end. The figures in future financial statements may differ from current estimates due to changes in these assumptions or economic conditions.

The principal sensitive accounting methods involving use of estimates and judgments are described below. Given their importance in the EDF group's financial statements, the impact of any change in assumption in these areas could be significant.

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

To date, reflection on the consequences of the Fukushima nuclear accident has not led the Group to change its main assumptions concerning operation and development of its nuclear generation fleet, particularly as regards their operating lifetimes.

1.3.2.1 Nuclear provisions

The measurement of provisions for the back-end of the nuclear cycle, decommissioning and last cores is sensitive to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules. A revised estimate is therefore established at each closing date to ensure that the amounts accrued correspond to the best estimate of the costs eventually to be borne by the Group. Any significant differences resulting from these revised estimates could entail changes in the amounts accrued.

The main assumptions and sensitivity analyses are presented in note 30.1.5.

1.3.2.2 Pensions and other long-term and post-employment benefits

The value of pensions and other long-term and post-employment benefit obligations is based on actuarial valuations that are sensitive to all the actuarial assumptions used, particularly concerning discount rates and wage increase rates.

The principal actuarial assumptions used to calculate these post-employment and long-term benefits at December 31, 2011 are presented in note 32. These assumptions are updated annually. The Group considers the actuarial assumptions used at December 31, 2011 appropriate and well-founded, but future changes in these assumptions could have a significant effect on the amount of the obligations and the Group's net income, and sensitivity analyses are therefore presented for France and the United Kingdom in notes 32.2.6 et 32.3.5 respectively.

1.3.2.3 Impairment of goodwill and long-term assets

Impairment tests on goodwill and long-term assets are sensitive to the macro-economic and segment assumptions used - particularly concerning electricity price movements - and medium-term financial forecasts. The Group therefore revises the underlying estimates and assumptions based on regularly updated information. These assumptions, which are specific to the Group, are presented in note 14.

1.3.2.4 Financial instruments

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

1.3.2.5 Energy and delivery not yet metered

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

1.3.2.6 Obligations concerning French public distribution concession assets to be replaced

In view of the specific nature of French public electricity distribution concessions, the Group has opted to present its obligation to renew concession assets in the balance sheet at a value corresponding to the amount of contractual commitments as calculated and disclosed to the grantors in the annual business reports. An alternative approach would be to value the obligations based on the discounted value of future payments necessary to replace these assets at the end of their industrial useful life. The impacts this alternative approach would have had on the accounts are shown in note 1.3.26 for information. Whatever valuation method is used, measurement of the concession liability concerning assets to be replaced is notably subject to uncertainty in terms of cost and disbursement dates.

1.3.2.7 Transition tariff system (*Tarif réglementé transitoire d'ajustement du marché* or TaRTAM)

The TaRTAM transition tariff system ended on June 30, 2011. To assess its own contribution due under this system for the periods concerned, the Group has used various assumptions based on the best available information and forecasts to estimate the volume of electricity eligible for this special tariff, changes in electricity prices on the market and the supply costs of the suppliers it is intended to compensate.

1.3.2.8 Deferred tax assets

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

1.3.2.9 Other judgments

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

1.3.3 Consolidation methods

Subsidiaries are companies in which the Group has exclusive control and are fully consolidated. Exclusive control means the power to govern the enterprise's financial and operating policies either directly or indirectly so as to obtain benefit from its activities. Exclusive control is presumed when EDF directly or indirectly holds more than 50% of the voting rights. Voting rights that are potentially exercisable at the closing date, even by another party, are taken into consideration in determining the level of control over a subsidiary.

Joint ventures are companies that the Group jointly controls, and are proportionally consolidated on the basis of the Group's percentage interest. Joint control is the contractually agreed sharing of control over a company run jointly by a limited number of partners or shareholders, such that the financial and operating policies require their unanimous consent.

Associates are entities in which the Group exercises significant influence over financial and operating policies, without having exclusive or joint control. The Group is considered to exercise significant influence when it holds at least 20% of the consolidated company. Associates are accounted for under the equity method. They are carried in the balance sheet at historical cost adjusted for the share of net assets generated after acquisition, less any impairment. The Group's share in net income for the period is reported under the income statement heading "Share in income of associates".

All internal transactions between consolidated companies, including realized internal profits, are eliminated.
A list of subsidiaries, joint ventures and associates is presented in note 52.

1.3.4 Financial statement presentation rules

Assets and liabilities of dissimilar natures or functions are disclosed separately.

Assets and liabilities contributing to working capital used in the entity's normal operating cycle are classified as current. Other assets and liabilities are classified as current if they mature within one year of the closing date, and non-current if they mature more than one year after the closing date.
Commitments given by the Group to purchase minority interests in Group-controlled companies are included in liabilities. For commitments of this kind given since January 1, 2010, the differential between the value of the minority interests and the liability corresponding to the commitment is recorded in equity.

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

1.3.5 Translation methods

1.3.5.1 Reporting currency

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

1.3.5.2 Functional currency

An entity's functional currency is the currency of the economic environment in which it primarily operates. In most cases, the local currency is the functional currency, but for some entities, a functional currency other than the local currency may be used provided it reflects the currency used in the principal transactions.

1.3.5.3 Translation of the financial statements of foreign companies whose functional currency is not the Euro

The financial statements of foreign companies whose functional currency is not the Euro are translated as follows:

- balance sheets are translated into Euros at the closing rate;
- income statements and cash flows are translated at the average rate for the period;
- resulting differences are recognized in equity under the heading "Translation adjustments"

Translation adjustments affecting a monetary item that is an integral part of the Group's net investment in a consolidated foreign company are included in consolidated equity until the disposal or liquidation of the net investment, at which date they are recognized as income or expenses in the income statement, in the same way as other exchange differences concerning the company.

1.3.5.4 Translation of transactions in foreign currencies

In application of IAS 21, transactions expressed in foreign currencies are initially translated and recorded in the functional currency of the entity concerned, using the rate in force at the transaction date.

At each reporting date, monetary assets and liabilities expressed in foreign currencies are translated at the closing rate. The resulting foreign exchange differences are taken to the income statement.

1.3.6 Related parties

Related parties include the French State, companies in which the State holds majority ownership and certain of their subsidiaries, and companies in which EDF exercises joint control or significant influence. They also include members of the Group's management and governance bodies.

1.3.7 Sales

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

The Group accounts for sales when:

- there is a proven contractual relationship;
- delivery has taken place (or the service has been completed);
- a quantifiable price has been established or can be determined;
- and the receivables are likely to be recovered.

Delivery takes place when the risks and benefits associated with ownership are transferred to the buyer.
Energy delivered but not yet measured and billed is calculated based on consumption statistics and selling price estimates.

Sales of goods and revenues on services not completed at the balance sheet date are valued by reference to the stage of completion at that date.

Energy trading operations are recognized net of purchases.

1.3.8 Income taxes

Income taxes include the current tax expense (income) and the deferred tax expense (income), calculated under the tax legislation in force in the countries where earnings are taxable.

Current and deferred taxes are recorded in the income statement or in equity if they concern items directly allocated to equity.

The current tax expense (income) is the estimated amount of tax due on the taxable income for the period, calculated using the tax rates adopted at the year-end.

Deferred taxes result from temporary differences between the book value of assets and liabilities and their tax basis. No deferred taxes are recognized for temporary differences generated by:

- goodwill which is not tax deductible;
- the initial recognition of an asset or liability in a transaction which is not a business combination and does not affect the accounting profit or taxable profit (tax loss) at the transaction date;
- investments in subsidiaries, joint ventures and associates, when the Group controls the timing of reversal of the temporary differences, and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are valued at the expected tax rate for the period in which the asset will be realized or the liability settled, based on tax rates adopted at the year-end. If the tax rate changes, deferred taxes are adjusted to the new rate and the adjustment is recorded in the income statement, unless it relates to an underlying for which changes in value are recorded in equity, for example hedging instruments and available-for-sale financial assets.

Deferred taxes are reviewed at each closing date, to take into account changes in tax legislation and the prospects for recovery of deductible temporary differences. Deferred tax assets are only recognized when it is probable that the Group will have sufficient taxable profit to utilize the benefit of the asset in the foreseeable future, or beyond that horizon, if there are deferred tax liabilities with the same maturity.

1.3.9 Earnings per share and diluted earnings per share

Earnings per share is calculated by dividing the Group's share of net income by the weighted average number of shares outstanding over the period. This weighted average number of shares outstanding is the number of ordinary shares at the start of the year, adjusted by the number of shares redeemed or issued during the year.
This number, and the earnings per share, is adjusted whenever necessary to reflect the impact of translation or exercise of dilutive potential shares (options, subscription warrants and convertible bonds issued, etc.).

1.3.10 Business combinations

The Group has applied revised IFRS 3 since January 1, 2010, and accordingly business combinations arising since that date are recorded under the new acquisition method.
At the date of acquisition, the identifiable assets acquired and liabilities assumed, measured at fair value, and any non-controlling interests in the company acquired (minority interests) are recorded separately from goodwill.
Non-controlling interests may be valued either at fair value (total goodwill method) or their share in the fair value of the net assets of the acquired company (partial goodwill method). The choice is made individually for each transaction.

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

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

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

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

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

1.3.11 Goodwill and other intangible assets

1.3.11.1 Goodwill

1.3.11.1.1 Determination of goodwill

Goodwill corresponds to the difference between the cost of a business combination and the Group's share in the fair value of the identifiable assets, liabilities and contingent liabilities of the company acquired on the date control is transferred. When the difference is negative, it is immediately included in the income statement.

The fair values of assets and liabilities and the resulting goodwill are finalized within 12 months of the acquisition.

1.3.11.1.2 Measurement and presentation of goodwill

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

Goodwill on acquisition of associates is included in the investment's net book value. Impairment on this goodwill is included under the heading "Share in income of associates".

Goodwill is not amortized, but impairment tests are carried out as soon as there is an indication of possible loss of value, and at least annually, as described in note 1.3.16.

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

1.3.11.2 Other intangible assets

1.3.11.2.1 Research and development expenses

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

Development expenses are capitalized as an intangible asset if the Group can demonstrate:
- the technical feasibility of making the intangible asset ready for commissioning or sale;
- its intention to complete the intangible asset and use or sell it;
- its ability to use or sell the intangible asset;
- how the intangible asset will generate likely future economic benefits;
- the availability of the appropriate resources (technical, financial or other) to complete development and use or sell the intangible asset;
- its ability to provide a reliable estimate of expenses attributable to the intangible asset during its development.

1.3.11.2.2 Other self-produced or purchased intangible assets

Other intangible assets mainly comprise:
- software and brands, which are amortized on a straight-line basis over their useful life;
- operating or usage rights for power plants, which are amortized on a straight-line basis over the useful life of the underlying asset;
- rights or licenses relating to hydrocarbon concessions, which are amortized under the unit of production (UOP) method;
- intangible assets related to environmental regulations (greenhouse gas emission rights and renewable energy certificates acquired for a consideration – see note 1.3.29);

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

1.3.12 Hydrocarbon prospecting, exploration and generation

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

Prospection and exploration costs and costs incurred in connection with geological surveys, exploratory testing, geological and geophysical mapping and exploratory drilling are recognized as intangible assets and fully amortized in the year they are incurred.
Development costs related to commercially viable mineral wells and production costs incurred to build facilities to extract and store hydrocarbons are recognized as "Property, plant and equipment used in generation and other tangible assets owned by the Group" or "Property, plant and equipment operated under concessions for other activities" as appropriate.

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

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

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

- property, plant and equipment operated under French public electricity distribution concessions;
- property, plant and equipment operated under concessions for other activities;
- property, plant and equipment used in generation and other tangible assets owned by the Group.

1.3.13.1 Initial measurement

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

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

The Group capitalizes safety expenses incurred as a result of legal and regulatory obligations sanctioning non-compliance by an administrative ban from operation.

The cost of property, plant and equipment also includes decommissioning costs for generation plants, and last core costs for nuclear facilities. These assets are associated with the provisions recorded to cover these obligations. At the date of commissioning, they are measured and recorded in the same way as the corresponding provision (see note 1.3.23). The following components are thus included in the balance sheet value of property, plant and equipment:

- the discounted cost of decommissioning the facilities;
- for nuclear facilities, the discounted cost of last core nuclear fuel, including depreciation of residual reactor fuel that will not be fully irradiated when production shuts down, the cost of nuclear fuel processing and the cost of removing and storing waste from these operations.

Strategic safety spare parts for nuclear facilities are treated as property, plant and equipment, and depreciated over the useful life of the facilities to which they are assigned.

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

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

1.3.13.2 Depreciation

Property, plant and equipment are depreciated on a straight-line basis over their useful life, defined as the period during which the Group expects to draw future economic benefits from their use.

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

• Hydroelectric dams:	75 years
• Electromechanical equipment used in hydropower plants:	50 years
• Fossil-fired power plants:	30 to 45 years
• Nuclear generation facilities:	40 to 60 years
• Transmission and distribution installations (lines, substations):	20 to 50 years
• Windfarm and photovoltaic facilities:	20 to 25 years

1.3.14 Concession agreements

1.3.14.1 Accounting treatment

The EDF group records public/private agreements in compliance with standards and interpretations IAS 16, IAS 17, IAS 18, IAS 37, IFRS 6 and IFRIC 4 as appropriate to the specific features of those agreements.
IFRIC 12, "Service concession arrangements", applied by the EDF Group since January 1, 2010, has a limited impact on the consolidated balance sheet and income statement in view of the features of the Group's concession agreements.
For most of its concessions, the Group considers that in substance the grantors do not have the characteristic features of control over infrastructures as defined in IFRIC 12.

1.3.14.2 French concessions

In France, the Group is the operator for three types of public service concessions:

- public electricity distribution concessions in which the grantors are local authorities (municipalities or syndicated municipalities);
- hydropower concessions with the State as grantor;
- the public transmission network operated under concession from the State.

1.3.14.2.1 Public electricity distribution concessions

- *General background*

Since the enactment of the French Law of April 8, 1946, EDF has by law been the sole operator for the main public distribution concessions in France.

The accounting treatment of concessions is based on the concession agreements, with particular reference to their special clauses. It takes into consideration the possibility that EDF may one day lose its status as the sole authorized State concession operator.
These agreements cover terms of between 20 and 30 years, and generally use standard concession rules deriving from the 1992 Framework Contract negotiated with the National Federation of Licensing Authorities (*Fédération Nationale des Collectivités Concédantes et Régies - FNCCR*) and approved by the public authorities.

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

All assets used by EDF in public electricity distribution concessions in France, whether they are owned by the grantor or the operator, are reported together under a specific line in the balance sheet assets at acquisition cost or their estimated value at the transfer date when supplied by the grantor.

1.3.14.2.2 Hydropower concessions

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

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

1.3.14.2.3 Public transmission concession

Under French law, assets assigned to the public transmission concession belong to RTE. Following application of the equity method to RTE from December 31, 2010, these assets are included in the equity value of RTE in the Group’s consolidated balance sheet.

1.3.14.3 Foreign concessions

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

Hydropower generation assets which will be returned for nil consideration at the end of the concession are depreciated over the duration of the concession. Hydrocarbon generation sites are recorded in compliance with the rules applicable to the sector (see note 1.3.12).

1.3.15 Leases

In the course of its business the Group uses assets made available to it, or makes assets available to lessees, under lease contracts. These contracts are analyzed in the light of the situations described and indicators supplied in IAS 17 in order to determine whether they are finance leases or operating leases.

1.3.15.1 Finance leases

Contracts that effectively transfer virtually all risks and benefits inherent to ownership of the leased item are classified as finance leases. The main criteria examined in determining whether virtually all the risks and benefits are transferred by an agreement are the following:

- the ratio of the duration of the lease to the leased assets’ useful life;
- total discounted future payments as a ratio of the fair value of the financed asset;
- whether ownership is transferred at the end of the lease;
- whether the purchase option is attractive;
- the features specific to the leased asset.

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

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

1.3.15.2 Operating leases

Lease agreements that do not qualify as finance leases are classified and recognized as operating leases. Payments made (received) in application of these agreements are included in expenses (income) in the income statement.

1.3.15.3 Arrangements containing a lease

In compliance with IFRIC 4, the Group identifies arrangements that do not have the legal form of a lease contract but nonetheless convey the right to use an asset or group of specific assets to the purchaser, as the purchaser in the arrangement benefits from a substantial share of the asset's production and payment is not dependent on production or market price.
Such arrangements are treated as leases, and analyzed with reference to IAS 17 for classification as either finance or operating leases.

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

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

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

- The Group measures any long-term asset impairment by comparing the carrying value of these assets and goodwill, classified into cash-generating units where necessary, and their recoverable amount.
  Cash-generating units (CGUs) are groups of homogeneous assets that generate identifiable independent cash flows. The Group's CGU comprise either subgroups or legal entities, broken down where necessary by activity (generation and supply, distribution, transmission, other). Goodwill is allocated to the CGU that benefits from synergies resulting from the acquisition.
  The recoverable value of these units is the higher of fair value net of disposal costs, and value in use. Value in use is determined with reference to discounted future net cash flows based on medium-term financial projections. When this recoverable value is lower than the carrying amount in the balance sheet, an amount equal to the difference is booked under the heading "Impairment". The loss is allocated first to goodwill, and any surplus to the other assets of the cash-generating unit concerned.

- The discount rates used for these purposes are based on the weighted average cost of capital for each asset or group of assets concerned, determined by economic and geographical area and by business segment where appropriate. The pre-tax discount rate is calculated using an iterative process based on after-tax rates.

- Future cash flows are based on medium-term plan projections over at least three years, and assumptions validated by the Group. Variables that can significantly affect the calculations are:
  - changes in tariff regulations and market prices;
  - changes in interest rates and market risk premiums;
  - market price levels and market share on supplies, and the level of investment;
  - the useful lives of facilities, and the plan for concession renewal;
  - the growth rates used beyond the medium-term plans and the terminal values taken into consideration.

- The fair value net of disposal costs is measured on the basis of multiples observed for the most recent transactions in the relevant sector.

Impairment of goodwill is irreversible.

1.3.17 Financial assets and liabilities

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

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

Financial liabilities comprise financial borrowings and debts, trade payables, bank credit and the negative fair value of financial derivatives.

Financial assets and liabilities are recorded in the balance sheet as current if they mature within one year and non-current if they mature after one year, apart from derivatives held for trading, which are all classified as current.

Operating debts and receivables, and cash and cash equivalents, are governed by IAS 39 and reported separately in the balance sheet.

1.3.17.1 Classification and valuation methods for financial assets and liabilities

Financial instruments are classified as follows under IFRS 7:
- financial assets and liabilities carried at fair value with changes in fair value included in income;
- held-to-maturity financial assets;
- loans and financial receivables;
- available-for-sale financial assets;
- trade receivables;
- cash and cash equivalents;
- financial debts and operating debts;
- derivatives.

Financial instruments stated at fair value are classified in the following categories:
- level 1 (quoted prices): financial instruments listed on an active market;
- level 2 (observable data): financial instruments valued using valuation techniques based on observable parameters;
- level 3 (internal model): financial instruments valued using valuation techniques based wholly or partly on non-observable parameters.

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

Financial assets carried at fair value with changes in fair value included in the income statement are classified as such at the inception of the operation. This applies to:
- assets acquired from the outset with the intention of resale in the short term;
- or derivatives not classified as hedges (derivatives held for trading);
- or assets the Group has elected to include in this category under the option allowed by IAS 39.

These assets are recorded at the transaction date, at acquisition cost including purchasing expenses. At each subsequent reporting date they are adjusted to fair value, based on quoted prices available from external sources for listed instruments, or using recognized valuation techniques such as the discounted cash flow method or reference to external sources for other instruments.

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

Dividends and interest received on assets carried at fair value are recorded in the income statement under “Other financial income”.

Changes in the fair value of commodity trading contracts are recorded in the income statement under “Sales”. Changes in the fair value of non-trading commodity transactions are reported separately on a specific line of the income statement, “Net changes in fair value on Energy and Commodity derivatives, excluding trading activities” below the operating profit before depreciation and amortization. These are transactions that come under the scope of IAS 39, which for accounting purposes are not eligible for hedge accounting or the IAS 39 "own use" exemption (see note 1.3.17.1.6.1).

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

- when using fair value eliminates or significantly reduces an inconsistency in the measurement of assets and liabilities ("accounting mismatch");
- when the performance of a group of financial assets or financial liabilities is managed on a fair value basis, in accordance with documented strategies and the reporting to management;
- when a contract contains one or more embedded derivatives. In such cases the fair value option may be applied to the hybrid instrument, unless:
  - the embedded derivative does not substantially affect the cash flows of the contract;
  - analysis of the host contract and the embedded derivative does not lead to separate measurement of the embedded derivative.

1.3.17.1.2 Held-to-maturity financial assets

This category covers fixed-term investments which the Group acquires with the intent and ability to hold to maturity. They are recorded at amortized cost at the transaction date. Interest is calculated at the effective interest rate and recorded in the income statement under the heading "Other financial income and expenses".

1.3.17.1.3 Loans and financial receivables

Loans and financial receivables are valued and recorded at the transaction date, at amortized cost less any impairment.
Interest is calculated at the effective interest rate and recorded in the income statement under the heading "Other financial income and expenses".

1.3.17.1.4 Available-for-sale financial assets

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

Available-for-sale financial assets are recorded at acquisition cost at the transaction date, and adjusted to fair value at the reporting date.

Fair value measurement is based on quoted prices and market data available from external sources for instruments listed on an active market, and on the discounted cash flow method for other financial instruments. When a fair value cannot be reliably estimated by other accepted valuation methods such as discounting future cash flows, these instruments are valued at acquisition cost less any accumulated impairment.

Unrealized gains or losses on these assets are recorded in equity, unless there is evidence of a realized loss, in which case impairment is recognized in the financial result (see note 1.3.17.2.2).

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

1.3.17.1.5 Financial liabilities

Financial liabilities are recorded at amortized cost, with separate reporting of embedded derivatives where applicable. Interest is calculated at the effective interest rate and recorded under the heading "Cost of gross financial indebtedness" over the duration of the financial liability. The fair value is calculated by discounting future cash flows at market rates.

1.3.17.1.6 Derivatives

1.3.17.1.6.1 Scope

The scope of derivatives applied by the Group corresponds to the principles set out in IAS 39.

In particular, forward purchases and sales for physical delivery of energy or commodities are considered to fall outside the scope of application of IAS 39 when the contract concerned is considered to have been entered into as part of the Group's normal business activity ("own use"). This is demonstrated to be the case when all the following conditions are fulfilled:

- a physical delivery takes place under all such contracts;
- the volumes purchased or sold under the contracts correspond to the Group's operating requirements;
- the contracts cannot be considered as options as defined by the standard. In the specific case of electricity sale contracts, the contract is equivalent to a firm forward sale or can be considered as a capacity sale.

The Group thus considers that transactions negotiated with a view to balancing the volumes between electricity purchase and sale commitments are part of its business as an integrated electricity company, and are outside the scope of IAS 39.

In compliance with IAS 39, the Group analyses all its contracts, of both a financial and non-financial nature, to identify the existence of any "embedded" derivatives. Any component of a contract that affects the cash flows of that contract in the same way as a stand-alone derivative corresponds to the definition of an embedded derivative.

If they meet the conditions set out by IAS 39, embedded derivatives are accounted for separately from the host contract at inception date.

1.3.17.1.6.2 Measurement and recognition

Derivatives are initially recorded at fair value, based on quoted prices and market data available from external sources. If no quoted prices are available, the Group may refer to recent comparable transactions or if no such transactions exist base its valuation on internal models that are recognized by market participants, giving priority to information directly derived from observable data, such as over-the-counter listings.

Changes in the fair value of these derivatives are recorded in the income statement, unless they are classified as hedges for a cash flow or net investment. Changes in the fair value of such hedging instruments are recorded directly in equity, excluding the ineffective portion of the hedge.
In the specific case of financial instruments entered into as part of EDF Trading's business, realized and unrealized gains and losses are reported net under the heading "Sales".

1.3.17.1.6.3 Derivatives classified as hedges

The EDF group uses derivatives to hedge its foreign exchange and interest rate risks, as well as risks related to certain commodity contracts.

The Group applies the criteria defined by IAS 39 in classifying derivatives as hedges:

- the instrument must hedge changes in fair value or cash flows attributable to the risk hedged, and the effectiveness of the hedge (i.e. the degree to which changes in the value of the hedging instrument offset changes in the value of the hedged item or future transaction) must be between 80% and 125%;
- in the case of cash flow hedges, the future transaction being hedged must be highly probable;
- reliable measurement of the effectiveness of the hedge must be possible;
- the hedge must be supported by appropriate documentation from its inception.

The hedging relationship ends when:

- a derivative ceases to be an effective hedging instrument;
- a derivative expires, or is sold, terminated or exercised;
- the hedged item expires, is sold or redeemed;
- a future transaction ceases to be considered as highly probable.

Only derivatives external to the Group qualify for hedge accounting, and gains or losses on internal derivatives are eliminated in the consolidated financial statements. However, in a cash flow hedging relationship initiated via derivatives internal to the Group, hedge accounting is applied if it can be demonstrated that the internal derivatives are matched with similar transactions external to the Group.

The Group uses the following categories for hedges:

(A) Fair value hedges

These instruments hedge the exposure to changes in the fair value of an asset or liability recorded in the balance sheet, or a firm commitment to purchase or sell an asset. Changes in the fair value of the hedged item attributable to the hedged component of that item are recorded in the income statement and offset by corresponding variations in the fair value of the hedging instrument. Only the ineffective portion of the hedge has an impact on income.

(B) Cash flow hedges

These instruments hedge highly probable future transactions: the variability in cash flows generated by the hedged transaction is offset by changes in the value of the hedging instrument.
The effective portion of accumulated changes in the hedge's fair value is recorded in equity, and the ineffective portion (i.e. changes in the fair value of the hedging instrument in excess of changes in the fair value of the hedged item) is recorded in the income statement.
When the hedged cash flows materialize, the amounts previously recognized in equity are transferred to the income statement in the same way as for the hedged item.

(C) Hedges of a net investment

These instruments hedge exposure to the foreign exchange risk related to a net investment in a foreign entity. The effective portion of accumulated changes in the hedge's fair value is recorded in equity until disposal of the net investment, when it is included in the gain or loss on disposal. The ineffective portion (defined in the same way as for cash flow hedges) is recorded directly in the income statement.

The Group records the change in fair value resulting from the interest rate effect of derivatives hedging a net investment in a foreign operation in equity in the same way as the change in value resulting from foreign exchange differences.

1.3.17.2 Impairment of financial assets

At the year-end and at each interim reporting date, the Group assesses whether there is any objective evidence that an asset could have been significantly impaired. If so, the Group estimates the asset's recoverable value and records any necessary impairment as appropriate for the category of asset concerned.

1.3.17.2.1 Financial assets recorded at amortized cost

Impairment is equal to the difference between the asset's net book value and the discounted value of expected future cash flows, using the original effective interest rate of the financial instrument. The impairment is included in the income statement under the heading "Other financial income and expenses". If the impairment loss decreases in a subsequent period, the amount of the decrease is reversed and transferred to the income statement.

1.3.17.2.2 Available-for-sale financial assets

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

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

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

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

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

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

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

1.3.17.3 Derecognition of financial assets and liabilities

Derecognition is applied for all or part of:

- a financial asset, when the contractual rights making up the asset expire, or the Group substantially transfers most of the significant risks associated with ownership of the asset;
- a financial liability, when the liability is extinguished due to cancellation or expiry of the obligation. When a debt is renegotiated with a lender giving rise to substantially different terms, a new liability is recognized.

1.3.17.4 Securitization operations

When it can be demonstrated that the Group does not control the investment funds resulting from securitization operations, they are excluded from the scope of consolidation. Otherwise, an entry corresponding to the cash inflow is recorded under the heading "Financial liabilities".

1.3.18 Inventories

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

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

1.3.18.1 Nuclear fuel and materials

Inventory accounts include:

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

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

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

Interest expenses incurred in financing inventories of nuclear fuels are charged to expenses for the period.

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

1.3.18.2 Operating materials and other inventories

Inventories are valued at weighted average cost including direct and indirect purchasing costs.
Provisions concerning spare parts supplied under a maintenance program are based on the turnover of these parts and the useful lives of generation units.

Renewable energy certificates are also included in other inventories (see note 1.3.29.2).

1.3.19 Trade receivables

On initial recognition, trade receivables are stated at the fair value of the consideration received or to be received. Impairment is recorded when their carrying amount, based on the probability of recovery assessed according to the type of receivable, is less than their book value. Depending on the nature of the receivable, the risk associated with doubtful receivables is assessed individually or by experience-based statistical methods.
Trade receivables also include revenue based on an estimate of power already delivered but not yet measured or billed. Impairment is booked to cover the risk of non-recovery.

1.3.20 Cash and cash equivalents

Cash and cash equivalents comprise very liquid assets and very short-term investments, usually maturing within three months or less of the acquisition date, and with negligible risk of fluctuation in value.
Securities held short-term and classified as "cash equivalents" are recorded at fair value, with changes in fair value included in the heading "Financial income on cash and cash equivalents".

1.3.21 Equity

1.3.21.1 Fair value adjustment of financial instruments

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

1.3.21.2 Share issue expenses

Share issue expenses correspond exclusively to external costs expressly related to the capital increase. They are charged against the issue premium at their net-of-tax value.

Other expenses are classified as expenses of the period.

1.3.22 Treasury shares

Treasury shares are shares issued by the consolidating company and held either by that company or by other entities in the consolidated group. They are valued at acquisition cost and deducted from equity until the date of disposal. Net income or losses on disposals of treasury shares are directly included in equity and do not affect net income.

1.3.23 Provisions other than employee benefit provisions

The Group recognizes provisions if the following three conditions are met:
- the Group has a present obligation (legal or constructive) towards a third party that arises from an event prior to the closing date;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- the obligation amount can be estimated reliably.

In extremely rare cases when disclosing information could cause serious prejudice to the Group, description of a specific obligation, risk or litigation covered by a provision may be excluded from the notes to the financial statements.

Provisions are determined based on the Group's estimate of the expected cost necessary to settle the obligation. Estimates are based on management data from the information system, assumptions adopted by the Group, and if necessary experience of similar transactions, or in some cases based on independent expert reports or contractor quotes. The various assumptions are reviewed for each closing of the accounts.

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

It may occasionally happen that a provision cannot be booked due to lack of a reliable estimate. In such cases, the obligation is mentioned in the notes as a contingent liability, unless there is little likelihood of an outflow of resources.

Provisions mainly cover the following:

- back-end nuclear cycle expenses: provisions for spent fuel management and long-term radioactive waste management are established in accordance with the obligations and final contributions specific to each country;
- costs for decommissioning power plants and losses relating to fuel in the reactor when the reactor is shut down (provision for last cores);
- future losses relating to multi-year agreements for the purchase and sale of energy:
  - losses on energy purchase agreements are measured by comparing the acquisition cost under the contractual terms with the forecast market price for electricity;
  - losses on energy sale agreements are measured by comparing the estimated income under the contractual terms with the cost of generating the energy to be supplied.

Provisions to cover back-end nuclear cycle expenses, expenses related to the decommissioning of power plants and last cores, and future losses relating to multi-year energy purchase and sale agreements are estimated according to future discounted outflows using rates that represent the best estimate of a long-term yield on bond markets.

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

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

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

- as a change in the corresponding assets if the provision was initially covered by balance sheet assets;
- in the income statement in all other cases.

1.3.24 Provisions for employee benefits

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

1.3.24.1 Calculation and recognition of employee benefits

Obligations under defined-benefit plans are calculated by the projected unit credit method, which determines the present value of entitlements earned by employees at year-end under all types of plan, taking into consideration each country's specific economic conditions and expected wage increases.

In calculating pensions and other post-employment benefit obligations, this method takes the following factors into consideration:

- career-end salary levels, with reference to employee seniority, projected salary levels at the time of retirement based on the expected effects of career advancement, and estimated trends in pension levels;
- retirement age, determined on the basis of relevant factors (such as years of service a
- number of children taking into account the prolongation of the employee contribution period to qualify for a full pension);
- forecast numbers of pensioners, determined based on employee turnover rates and mortality data available in each country;
- reversion pensions where relevant, taking into account both the life expectancy of the employee and his/her spouse and the marriage rate observed for the population of IEG status employees;
- a discount rate that depends on the geographical zone and the duration of the obligations; in compliance with IAS 19, this rate is determined as the market yield on high-quality corporate bonds or the year-end rate on government bonds with a similar duration to EDF's commitments.

The provision takes into account the value of the fund assets that cover the pension obligations, which are deducted from the value of the obligation as determined above.

Any actuarial gains or losses on pensions and post-employment benefit obligations in excess of 10% (the "corridor") of the obligations or fund assets, whichever is the higher, are recognized in the income statement progressively over the average residual working life of the company's employees.

For other long-term benefits, any actuarial variance and the entire past service cost are directly included in the provision, without application of the "corridor" rule.

The net expense booked for employee benefit obligations includes:

- the cost of additional vested benefits, and the financial discount cost on existing benefits;
- the income corresponding to the expected return on fund assets;
- the income or expenses resulting from amortization of actuarial gains or losses;
- the income or expenses related to amendments/terminations of the benefit plans or introduction of new plans.

1.3.24.2 Pension and post-employment benefit obligations

When they retire, Group employees benefit from pensions determined under local rules. They may also be entitled to benefits directly paid by the companies, and additional benefits prescribed by the relevant regulations.

- *French subsidiaries covered by the IEG system*

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

Following the financing reform for the special IEG pension system that took place in 2004 with effect from January 1, 2005, provisions recorded for the special pension system correspond to the specific benefits of employees, i.e. benefits not covered by the standard benefit systems.

The provision for pensions thus covers:

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

The valuation also includes CNIEG management expenses payable by EDF for the administration and payment of retired employees' pensions by the CNIEG (the pension body for France's electricity and gas sector).

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

- benefits in kind (electricity/gas): article 28 of the IEG national statutes entitles all employees (active or inactive) to benefits in kind in the form of supplies of electricity or gas at the preferential "Employee price". The EDF Group's obligation for supplies of energy to EDF and GDF Suez employees corresponds to the probable present value of KWhs supplied to beneficiaries during their retirement, valued on the basis of the unit cost, taking into account the payment received under the energy exchange agreement with GDF Suez.

- retirement gratuities: these are paid upon retirement to employees due to receive the statutory old-age pension, or to their dependants if the employee dies before reaching retirement. These obligations are almost totally covered by an insurance policy.

- bereavement benefit: this is paid out upon the death of an inactive or disabled employee, in order to provide financial assistance for the expenses incurred at such a time (Article 26 -§ 5 of the National Statutes). It is paid to the deceased's principal dependants (statutory indemnity equal to two months' pension) or to a third party that has paid funeral costs (discretionary indemnity equal to the costs incurred).

- bonus pre-retirement paid leave: all employees eligible to benefit immediately from the statutory old-age pension and aged at least 55 at their retirement date are entitled to 18 days of bonus paid leave during the last twelve months of their employment.

- other benefits include cost of studies indemnities, additional retirement indemnities, time banking for pre-retirement leave, and pensions for personnel sent on secondment to subsidiaries not covered by the IEG system.

  - *French and foreign subsidiaries not covered by the special IEG system*

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

1.3.24.3 Other long-term benefit obligations

These benefits concern employees currently in service, and are earned according to local regulations, particularly the statutory regulations for the electricity and gas sector for EDF and French subsidiaries covered by the IEG regime. They include:

- annuities following incapacity, invalidity, industrial accident or work-related illness; like their counterparts in the general national system, IEG employees are entitled to financial support in the event of industrial accident or work-related illness, and invalidity and incapacity annuities and benefits. The obligation is measured as the probable present value of future benefits payable to current beneficiaries, including any possible reversions;
- long-service awards;
- specific benefits for employees who have been in contact with asbestos.

1.3.25 Share-based payments

Under existing legislation in France, employees of a French group may benefit from attribution of shares. When the State sells some of the capital of a public company, article 11 of the French privatization law of 1986 and article 26 of the law of August 9, 2004 require a share offer to be reserved for current and retired employees of the company. The company being privatized may also set up free share plans.

In the light of IFRS 2, these benefits granted to employees and former employees must be treated by the company as personnel expenses in the same way as additional remuneration, and recognized as such with a corresponding adjustment in equity.

Valuation of the benefit granted through a share offer reserved for current and former employees is based on the difference between the share subscription price and the share price at the grant date, with actuarial valuation of the impact, if any, of the payment terms, the minimum holding period, and the fact that no dividends were received during the vesting period for the free shares.

In the case of free shares, the value of the benefit is based on the share price at the grant date, depending on the number of shares granted and the fact that no dividends were received during the vesting period. The expense is spread over the vesting period.

1.3.26 Special concession liabilities

These liabilities represent the contractual obligations specific to the concession rules for public electricity distribution concessions in France, recognized in the liabilities as:

- rights in existing assets: these correspond to the grantor's right to recover all assets for nil consideration. This right comprises the value in kind of the facilities - the net book value of assets operated under concession - less any as yet unamortized financing provided by the operator;
- rights in assets to be replaced: these correspond to the operator's obligation to contribute to the financing of assets due for replacement. These non-financial liabilities comprise:
  - depreciation recorded on the portion of assets financed by the grantor;
  - the provision for renewal, exclusively for assets due for renewal before the end of the concession.

When assets are replaced, the provision and amortization of the grantor's financing recorded in respect of the replaced item are eliminated and transferred to the rights in existing assets, since they are considered as the grantor's financing for the new asset. Any excess provision is taken to income.

During the concession, the grantor's rights in assets to be replaced are thus transferred upon the asset's renewal to become the grantor's rights in existing assets, with no outflow of cash to the benefit of the grantor.

In general, the value of special concession liabilities is determined as follows:

- the grantor's rights in existing assets, representing the share deemed to be held by the grantor in the concession assets, are valued on the basis of the assets recorded in the balance sheet;
- the obligations relating to assets to be replaced are valued on the basis of the estimated value of the relevant assets, measured at each year-end taking into consideration wear and tear on the asset at that date:
  - based on the difference between the asset's replacement value as assessed at year-end and the historical cost for calculation of the provision for renewal. Annual allocations to the provision are based on this difference, less any existing provisions, with the net amount spread over the residual useful life of the assets. Consequently, the expenses recognized for a given item increase over time;
  - based on the share of the asset's historical cost financed by the grantor for amortization of the grantor's financing.

The Group considers that the obligations related to assets to be replaced are to be valued on the basis of the special clauses contained in the concession agreements. Under this approach, these obligations are stated at the value of the contractual obligations as calculated and reported annually in the reports to the grantors.
If no such clauses existed, an alternative approach would be to state contractual obligations at the discounted value of future payments required for replacement of assets operated under concession at the end of their industrial useful life.

For information, the Group reports below the impacts of this alternative approach, i.e. the discounting of the future obligation to contribute to financing of assets to be replaced.

The principal assumptions used in preparing this simulation are as follows:

- the basis for calculation of the provision for renewal is the estimated replacement value at the end of the asset's useful life, applying a forecast annual inflation rate of 2%, less the asset's historical value. This amount is based on the wear and tear on the asset and discounted at a rate of 5%;
- amortization of the grantor's financing is also discounted at the rate of 5%.

The following table shows the impacts of this discounting for EDF and ERDF in 2011:

- Impact on the income statement:

(in millions of Euros)	2011
Operating profit	500
Financial result	(600)
Income before taxes of consolidated companies	(100)

- Impact on the balance sheet - equity:

(in millions of Euros and before taxes)	2011
At opening date	2,540
At closing date	2,440

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

1.3.27 Investment subsidies

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

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

Assets classified as held for sale and associated liabilities are disclosed separately from other assets and liabilities in the balance sheet. All income from discontinued operations is disclosed in a single net amount after taxes in the income statement. In the cash flow statement, net changes in cash and cash equivalents of discontinued activities are also reported separately on a specific line.

1.3.29 Environment

1.3.29.1 Greenhouse gas emission rights

Since no IFRS specifically addresses the question, the Group has opted for the "net approach" accounting treatment: emissions produced are not recognized unless the entity expects to have an annual shortfall in emission rights. Only purchases and sales of quotas are recognized in the accounts.

The Group thus applies the following principles:

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

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

Forward purchases/sales of rights carried out as part of trading activities are recorded in compliance with IAS 39 and stated at fair value at the balance sheet date. Changes in fair value are taken to the income statement.

1.3.29.2 Renewable energy certificates

Electricity produced from renewable energy sources (green energy) is measured in two ways:
- At the sale price, including costs associated with generation of this electricity (EDF);
- At the value of renewable energy certificates obtained.

The renewable energy certificate system thus applies to:
- Non-obligated producers (because the obligation concerns energy supply: Poland, EDF Energies Nouvelles);
- Obligated producers (because the obligation concerns energy generation, or because they also supply energy and are subject to an energy supply obligation: Edison, Fenice, EDF Energy).

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

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

1.3.29.3 Energy savings certificates

Expenses incurred to meet an energy savings obligation are recorded as:
- tangible assets, if the action taken by the entity concerns its own assets and the expenses qualify for recognition as an asset,
- expenses for the year incurred, if they do not meet the requirements for capitalization or if the action taken is to encourage third parties to save energy.

Under an energy savings certificates system of the kind introduced by the French law of July 13, 2005:
- certificates obtained from the State after the action taken are not recognized in the accounts;
- purchases of energy savings certificate are included in:
  - expenses, if the purchases are made to meet the obligation,
  - intangible assets, if the certificates are purchased for resale (as there is no active market).

1.3.29.4 Environmental expenses

Environmental expenses are identifiable expenses incurred to prevent, reduce or repair damage to the environment that has been or may be caused by the Group as a result of its business. These expenses are recorded under three headings:
- they are capitalized if they are incurred to prevent or reduce future damage or protect resources;
- they are booked as environmental liabilities and increases to provisions for environmental risks if they correspond to an obligation that exists at the year-end and it is probable or certain at the reporting date that they will lead to an outflow of resources representing economic benefits;
- they are recognized as expenses if they are operating expenses for the bodies in charge of environmental concerns, environmental supervision, environmental duties and taxes, processing of liquid and gas effluents and non-radioactive waste, or research unrelated to an investment.

2 Comparability

2.1 Presentation of EDF Luminus' energy sale and purchase optimization activities

In 2010, EDF Luminus (the new name for the Belgian company SPE) charged energy purchases undertaken as part of its optimization activities to sales. For compliance with Group presentation rules, this treatment is no longer applied to energy purchases for 2011 and the comparative periods presented. This change leads to a €155 million increase in sales, and an equivalent increase in fuel and energy purchases, for 2010. Operating profit before depreciation and amortization and net income are unaffected.

2.2 Impact on the consolidated income statement for 2010

(in millions of Euros)	**2010 as published**	**EDF Luminus Optimization impacts**	**2010 restated**
Sales	65,165	155	65,320
Fuel and energy purchases	(26,021)	(155)	(26,176)
Other external expenses	(10,582)	-	(10,582)
Personnel expenses	(11,422)	-	(11,422)
Taxes other than income taxes	(3,227)	-	(3,227)
Other operating income and expenses	3,090	-	3,090
Prolongation of the transition tariff system (TaRTAM) – Laws of June 7 and December 7, 2010	(380)	-	(380)
Operating profit before depreciation and amortization	**16,623**	**-**	**16,623**
Net changes in fair value on Energy and Commodity derivatives, excluding trading activities	15	-	15
Net depreciation and amortization	(7,426)	-	(7,426)
Net increases in provisions for renewal of property, plant and equipment operated under concessions	(428)	-	(428)
(Impairment) / reversals	(1,743)	-	(1,743)
Other income and expenses	(801)	-	(801)
Operating profit	**6,240**	**-**	**6,240**
Cost of gross financial indebtedness	(2,754)	-	(2,754)
Discount effect	(3,134)	-	(3,134)
Other financial income and expenses	1,462	-	1,462
Financial result	**(4,426)**	**-**	**(4,426)**
Income before taxes of consolidated companies	**1,814**	**-**	**1,814**
Income taxes	(1,079)	-	(1,079)
Share in income of associates	134	-	134
Net income of discontinued operations	380	-	380
Group net income	**1,249**	**-**	**1,249**
EDF net income	***1,020***	**-**	***1,020***
Net income of continuing operations	634	-	634
Net income of discontinued operations	386	-	386
Net income attributable to non-controlling interests	***229***	**-**	***229***
Net income of continuing operations	*235*	-	*235*
Net income of discontinued operations	(6)	-	(6)

3 Significant events and transactions

3.1 Group operations in Italy

3.1.1 Preliminary agreement for acquisition of Edison by the EDF group and acquisition of Edipower by A2A

On December 26, 2011, EDF, A2A, Delmi, Edison and Iren signed a preliminary agreement for reorganization of the shareholding structure of Edison and Edipower. The EDF group will take control of Edison by purchasing Delmi's entire investment in TDE (50%) at the negotiated price of €0.84 per Edison share or a total of €705 million.

After completion of the operation, which is subject to certain conditions particularly concerning approval by the regulatory and competition authorities, the Group will hold 78.96% of the capital and 80.7% of the voting rights in Edison.

This agreement also provides for a mandatory tender offer by the EDF group to Edison's minority shareholders, to buy out their investments at a price no higher than the price of the Edison shares acquired via TDE, i.e. €0.84 per share. When EDF takes control of Edison, Delmi will take control of Edipower by purchasing the investments in Edipower held by Edison (50%) and ALPIQ (20%) for the total sum of €805 million.

In accordance with the timeline defined in the preliminary agreement, on January 24, 2012 the Boards of Directors of Edison and EDF validated the draft preliminary agreement for reorganization of the shareholding structure of Edison and Edipower. The governance bodies of the other companies concerned by the transaction also gave their approval.
The preliminary agreement of December 26, 2011 also stipulates that a long-term (6-year) gas supply contract is to be signed between Edison and Edipower to cover 50% of Edipower's gas requirements.

The final agreements were signed on February 15, 2012. Their execution is conditional upon confirmation by the Italian market regulator (Consob) of the price of €0.84 per share for the offer to minority shareholders, and approval of the operations by the Italian competition authorities and the European Union.

Acquisition of TDE will enable the EDF group to have exclusive control over Edison, from a date that should normally be before June 30, 2012. As a result, this operation will be recorded under IFRS 3 (revised).

Regarding the offer to minority shareholders, since the EDF group will already have taken control of Edison when the offer is made, it will be considered as a transaction between shareholders under IAS 27 (amended), with an impact on equity.

3.1.2 Provision established at December 31, 2010 in respect of the Group's operations in Italy

At December 31, 2010, the Group established a provision of €750 million on the Italy segment in response to various indicators and uncertainties. This provision was recorded in the income statement under "Other income and expenses".

The Group's consolidated financial statements at December 31, 2011 include impairment and provisions recognized in the 2010 annual accounts (finalized in March 2011) and 2011 accounts of Edison and TDE, via allocation to the extent of €668 million of the provision recorded at December 31, 2010. Details of this impairment are given in note 14.

3.2 Simplified alternative public cash or exchange offer for EDF Energies Nouvelles

On April 8, 2011 the EDF group, which already owned 50% of EDF Energies Nouvelles, launched a simplified alternative public offer to acquire all the shares in EDF Energies Nouvelles, for a cash consideration or in exchange for shares.
EDF's Board of directors approved this offer at its meeting of April 8, 2011. The operation was supported by the Mouratoglou group, a longstanding partner of EDF and 25.1% shareholder in EDF Energies Nouvelles, which tendered its entire holding in EDF Energies Nouvelles to the offer, half for shares and half for cash.

When the offer closed on June 16, 2011, the Group acquired the shares tendered for the sum of €1,351 million, raising its ownership of EDF Energies Nouvelles to 96.71%. This sum comprises:

- € 1,045 million or 33.7% for the cash component of the offer;
- € 306 million or 13.0% for the share exchange component of the offer.

EDF then proceeded with a compulsory squeeze-out of shares not tendered to the offer, at the price of €40 per share. In parallel, a liquidity contract was set up to enable EDF to purchase shares covered by employee share plans. These operations generated a total cost of €103 million.

EDF also carried out share repurchases amounting to €324 million in order to neutralize this operation's dilutive effect on EDF shareholders' percentage control. This neutralization became effective on September 28, 2011 after a reduction in the capital of EDF SA through cancellation of treasury shares.

In application of IAS 27 (amended), this operation is considered as a transaction between shareholders. It is reflected in the consolidated financial statements by a €716 million decrease in equity (EDF's share), corresponding to the difference between the acquisition price and the net book value of the minority interests acquired. EDF Energies Nouvelles remains fully consolidated, with the Group's percentage interest at 100% from June 29, 2011.

3.3 Sale of the investment in EnBW

The disposal of the Group's holding in EnBW was completed on February 17, 2011. On that date, in application of the agreements signed by the two parties on December 6, 2010, the sum of €4.5 billion was paid to the EDF group in addition to the €169 million downpayment received on December 16, 2010. The net gain on the sale is €253 million (€276 million before taxes, included in "Other income and expenses").

EnBW was an operating segment ("Germany") in the EDF group's 2010 financial statements, and in accordance with IFRS 5, the Group's investment in EnBW was treated as a "discontinued operation".

This operation also led to cancellation in 2011 of the €2.3 billion off-balance sheet commitment recorded by the EDF group in respect of OEW's put option to sell EDF part or all of its 25% stake in EnBW.

3.4 Nuclear accident in the Fukushima plant in Japan

Following the Fukushima accident, the administrative authorities of various countries where the Group operates have taken decisions concerning plants already in operation and proposed new plants.
The French Prime Minister asked the Nuclear Safety Authority (ASN) in a letter dated March 23, 2011 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.

In April, as well as the additional safety assessments, EDF reported its initial proposals to reinforce safety and control of its nuclear generation fleet to the ASN panel of commissioners. After Fukushima, EDF prepared an initial 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 made available in the event of an accident,
- formation of a national rapid-intervention "task force" to reinforce the crisis response procedure, 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.

On September 15, 2011, EDF submitted to the ASN its 19 additional safety assessment reports on the nuclear sites currently in operation and under construction. This in-depth examination of plant design showed that safety levels are good across all of EDF's nuclear fleet. Additional post-Fukushima measures have been proposed to the ASN, taking the assumptions further to help raise the level of plant safety even more.

On January 3, 2012, the ASN released its report on the additional safety assessments conducted following the Fukushima accident.

Following these assessments conducted on nuclear facilities identified as priority, the ASN considers that the facilities examined are sufficiently safe and there is no need to demand immediate closure for any of them. It also concludes that for ongoing operation, the plants' capacity to withstand extreme situations must be increased over and above current safety margins as soon as possible.

3.5 Significant events and transactions of 2010

3.5.1 Change in governance and allocation of 50% of RTE shares to dedicated assets

A decree of December 31, 2010 appointed two further representatives of the French government to the Supervisory Board of RTE, replacing representatives of EDF. This means the EDF group no longer has a majority on RTE's Supervisory Board, and therefore no longer has exclusive control over RTE's operating and financial policies as defined by IAS 27. Since the Group still has significant influence, particularly through its representative members on the Supervisory Board, its investment in RTE is accounted for under the equity method from December 31, 2010.

EDF's loss of control over RTE is considered as a common control transaction and is recorded at net book value.

At December 31, 2010, the EDF group allocated 50% of RTE shares to its portfolio of dedicated assets set aside to cover future nuclear plant decommissioning and back-end nuclear cycle costs in France.

3.5.2 Sale of the British networks

The sale of the British electricity distribution networks finalized on October 29, 2010 generated a €46 million gain, included in "Other income and expenses" at December 31, 2010.
It also led to deconsolidation of balance sheet items related to the British networks, and a reduction of €6.7 billion in the Group's net financial indebtedness.

3.5.3 Group operations in the US

On November 3, 2010, EDF and CEG completed a comprehensive agreement to restructure the two companies' collaboration, eliminating the $2 billion put option for sale of non-nuclear assets and attributing EDF full control over UniStar.

Under the terms of this agreement, EDF acquired CEG's 50% stake in UniStar and now owns 100% of the company. CEG, meanwhile, undertook to transfer potential new nuclear sites at Nine Mile Point and R.E. Ginna in New York State to UniStar. After transferring its investment, CEG withdrew from development and financing for the Calvert Cliffs 3 new reactor project.
In exchange for the above, EDF paid CEG $140 million and will transfer 3.5 million of its CEG shares to CEG. EDF also gave up its seat on CEG's Board of Directors from the date of the transfer.

CEG waived its put option entitling it to sell certain non-nuclear assets to EDF for a maximum of $2 billion.

The ownership structure of CENG remains unchanged: CEG holds 50.01% and EDF 49.99%.

The above factors led to recognition of the following effects, totaling €1,042 million, in the 2010 consolidated income statement:

- a €929 million expense in "Impairment/reversals": €477 million for CENG and €452 million for UniStar;
- a €93 million expense in "Other income and expenses", mainly corresponding to the loss on transfer to CEG of 3.5 million CEG shares held by EDF;
- a €20 million expense related to the additional impairment on CEG shares recorded in 2010 under "Other financial income and expenses".

3.5.4 Exeltium

The EDF group and Exeltium, a consortium of electricity-intensive industrial operators, finalized the terms of the two-phase implementation of their partnership agreement entered into on July 31, 2008. The corresponding operations thus began on May 1, 2010 with deliveries of electricity to around one hundred industrial French sites. The deliveries concerned approximately half of their entitlements under the agreement, which is for total deliveries of approximately 310 TWh spread over 24 years.

In accordance with the agreement, in late April 2010 Exeltium paid the first advance of €1.7 billion. For accounting purposes this advance is discounted to present value from the date it was received.

4 Regulatory events in France

4.1 "NOME" Law on the new electricity market organization

The French "NOME" (*Nouvelle organisation du marché de l'électricité*) law on the new electricity market organization was enacted on December 7, 2010 and the first implementation decrees were issued in April and May 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 (up to a maximum of 100 TWh excluding network operators' losses) until 2025. This is the principle of regulated access to historical nuclear energy (ARENH – *Accès Régulé à l'Électricité Nucléaire Historique*) for which the price is set by government decision;
- contribution to supply security, obliging every supplier to have a sufficient demand response capacity for consumption or generation to supply all customers, particularly in peak consumption periods;
- continuation of the "blue" tariff for residential and small business customers; 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.

The ARENH principle came into force on July 1, 2011. The first ARENH deliveries to EDF's competitors are for an initial annual volume of 61.3 TWh. This volume cannot exceed 100 TWh each year, to be increased from August 2013 by the quantities sold to network managers to cover technical losses.

According to the "NOME" Law, the ARENH price has been set at €40/MWh for the second half of 2011 and €42/MWh for the first half of 2012. This initial price will move towards the full cost of generation in the existing nuclear fleet, in application of a future decree defining the costs included in the ARENH.

For the second half of 2011, 30.8 TWh were delivered under the ARENH system for a total value of €1.2 billion.

The capacity obligation system is due to come into force from 2015.

4.2 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. The CSPE is based on electricity consumption and is collected directly from the end-user. It was raised by €3/MWh on January 1, 2011 to €7.5/MWh until July 30, 2011. The amended Finance Law for 2011 set the CSPE at €9/MWh from July 31, 2011 to June 30, 2012, then €10.5/MWh from July 1, 2012.

5 Changes in the scope of consolidation

5.1 Changes in the scope of consolidation during 2011

In addition to the public alternative cash or exchange offer for EDF Energies Nouvelles shares described in note 3.2, changes in the scope of consolidation during 2011 concerned the following entities.

5.1.1 Polish entities

The sale of the investment in EnBW in 2011 also had the following consequences:

- a change in the percentage interest and the EDF group's control in Kogeneracja and Zielona Gora (Poland): the Group's ownership of these entities now stands at 33.4% and 32.9% respectively (from 40.6% and 39.9% at December 31, 2010). Kogeneracja and Zielona Gora are proportionally consolidated from February 17, 2011. In application of IAS 27 (amended), the change to proportional consolidation for these entities generated a €28 million gain on deconsolidation;
- a change in the EDF group's ownership interest in ERSA (Rybnik), resulting in the Group holding 64.9% in this entity from February 17, 2011 (compared to 79.8% at December 31, 2010).

Also, the Group signed an agreement with EnBW on December 21, 2011 to purchase EnBW's investments in these entities. The transaction received the approval of the European authorities on February 8, 2012 and should be completed in the second fortnight of February 2012. After completion, the EDF group will own 97.3% of ERSA and 50% plus one share in Kogeneracja. The value of the transaction is €301 million.

5.1.2 Dunkerque LNG

On June 29, 2011 Fluxys G and Total acquired investments of 25% and 10% respectively in Dunkerque LNG, the company responsible for industrial installations for a methane terminal. Dunkerque LNG has been 65%-owned by the EDF group since that date, and remains fully consolidated.

5.2 Changes in the scope of consolidation during 2010

In addition to the following major operations:

- sale of the regulated and deregulated electricity distribution network activities in the United Kingdom,
- acquisition of a further 50% investment in UniStar (United States) to bring the Group's ownership to 100%,
- presentation of the investment in EnBW as discontinued operations,
- change in the consolidation method applied to RTE,

described in detail in note 3.5, the other main changes in the scope of consolidation concern acquisition of a further 12.5% investment in EDF Luminus, bringing the Group's holding in the company to 63.5%.

6 Segment reporting

6.1 Reporting by operating segment

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

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

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

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

No segments have been merged.

6.1.1 At December 31, 2011

(in millions of Euros)	France	United Kingdom	Italy	Other international	Other activities	Inter-segment Eliminations	Total
External sales	37,171	8,568	6,552	7,501	5,515	-	65,307
Inter-segment sales	578	8	-	185	620	(1,391)	
Total sales	**37,749**	**8,576**	**6,552**	**7,686**	**6,135**	**(1,391)**	**65,307**
Operating profit before depreciation and amortization	**9,111**	**1,912**	**592**	**1,280**	**1,929**	**-**	**14,824**
Operating profit	**5,376**	**996**	**(155)**	**946**	**1,123**	**-**	**8,286**
Balance sheet							
Intangible assets and property, plant and equipment	80,537	12,682	3,965	8,966	10,520	-	116,670
Investments in associates	4,737	25	24	2,325	573	-	7,684
Goodwill	-	8,260	1,400	599	1,389	-	11,648
Other segment assets (1)	27,604	4,647	1,837	1,792	8,918	-	44,798
Assets classified as held for sale	-	-	700	1	-	-	701
Other non-allocated assets							50,206
Total Assets	**112,878**	**25,614**	**7,926**	**13,683**	**21,400**	**-**	**231,707**
Other information:							
Investments in intangible assets and property, plant and equipment	7,378	1,179	318	437	1,822	-	11,134
Net depreciation and amortization	(3,899)	(966)	(427)	(528)	(465)	-	(6,285)
Impairment	-	-	(320)	(53)	(267)	-	(640)

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

6.1.2 At December 31, 2010

Following the sale of EnBW which was in process at December 31, 2010, the former "Germany" segment was treated as a discontinued operation and was not reported as an operating segment in 2010 for income statement and investment data.

(in millions of Euros)	France	United Kingdom	Germany	Italy	Other international	Other activities	Inter-segment Eliminations	Total
External sales	36,167	10,683	-	5,647	7,033	5,790	-	65,320
Inter-segment sales	558	(1)	-	-	173	595	(1,325)	
Total sales	**36,725**	**10,682**	**-**	**5,647**	**7,206**	**6,385**	**(1,325)**	**65,320**
Operating profit before depreciation and amortization	**10,124**	**2,732**	**-**	**801**	**1,084**	**1,882**	**-**	**16,623**
Operating profit	**5,374**	**799**	**-**	**(612)**	**(393)**	**1,072**	**-**	**6,240**
Balance sheet								
Intangible assets and property, plant and equipment	76,491	12,040	-	5,132	9,276	8,877	-	111,816
Investments in associates	4,649	28	-	23	2,515	639	-	7,854
Goodwill	-	7,972	-	1,910	604	1,542	-	12,028
Other segment assets (1)	26,831	4,341	-	1,575	1,790	6,991	-	41,528
Assets classified as held for sale	-	21	17,857	122	78	67	-	18,145
Other non-allocated assets								49,188
Total Assets	**107,971**	**24,402**	**17,857**	**8,762**	**14,263**	**18,116**	**-**	**240,559**
Other information:								
Investments in intangible assets and property, plant and equipment	7,874	1,871	-	381	561	1,554	-	12,241
Net depreciation and amortization	(4,361)	(1,513)	-	(471)	(578)	(503)	-	(7,426)
Impairment	-	(397)	-	(192)	(960)	(194)	-	(1,743)

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

6.2 Sales to external customers, by product and service group

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

- **"Generation/Supply":** energy generation and energy sales to industry, local authorities, small businesses and residential consumers. This segment also includes commodity trading activities;
- **"Distribution":** management of the low and medium-voltage public distribution network;
- **"Transmission":** operation, maintenance and development of the high-voltage and very-high-voltage electricity transmission network;
- **"Other":** energy services (district heating, thermal energy services, etc.) for industry and local authorities, and new businesses mainly aimed at boosting electricity generation through cogeneration and renewable energy sources (e.g. wind turbines, solar panels, etc.).

(in millions of Euros)	Generation Supply	Distribution	Transmission[1]	Other	Eliminations [2]	Total
At December 31, 2011:						
External sales:						
- France	24,535	13,099	-	123	(586)	37,171
- Rest of the world	24,092	432	-	3,612	-	28,136
Total sales	**48,627**	**13,531**	**-**	**3,735**	**(586)**	**65,307**
At December 31, 2010:						
External sales:						
- France	23,011	9,836	4,031	94	(805)	36,167
- Rest of the world	24,121	1,361	23	3,648	-	29,153
Total sales	**47,132**	**11,197**	**4,054**	**3,742**	**(805)**	**65,320**

(1) No sales are reported for Transmission in France in 2011 because RTE is accounted for under the equity method from December 31, 2010;

(2) Eliminations between regulated activities (Distribution - Transmission): €0 million for 2011, €(271) million for 2010; Eliminations between deregulated activities: €(30) million for 2011, €(28) million for 2010.

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7 Sales

Sales are comprised of:

(in millions of Euros)	2011	2010
Sales of energy and energy-related services	60,143	59,608
Other sales of goods and services	4,247	4,837
Trading	917	875
Sales	**65,307**	**65,320**

Sales were stable over the year as organic growth offset the negative effects of changes in the scope of consolidation (chiefly the sale of the network businesses in the United Kingdom in 2010).

In France, EDF registered sales of €1,233 million in the second half of 2011 under the ARENH system (see note 4.1).

8 Fuel and energy purchases

Fuel and energy purchases comprise:

(in millions of Euros)	2011	2010
Fuel purchases used - power generation	(9,922)	(9,165)
Energy purchases	(13,957)	(14,435)
Transmission and delivery expenses	(6,841)	(2,879)
Gain/loss on hedge accounting	274	1
(Increase)/decrease in provisions related to nuclear fuels and energy purchases	251	302
Fuel and energy purchases	**(30,195)**	**(26,176)**

The increase in fuel and energy purchases is principally associated with transmission and delivery expenses, following application of the equity method to RTE from December 31, 2010 and the sale of the United Kingdom network activities in 2010.

9 Other external expenses

Other external expenses comprise:

(in millions of Euros)	2011	2010
External services	(10,710)	(11,381)
Other purchases (excluding external services, fuel and energy)	(2,955)	(2,849)
Change in inventories and capitalized production	3,464	3,462
(Increase)/decrease in provisions on other external expenses	270	186
Other external expenses	**(9,931)**	**(10,582)**

Excluding the effect of changes in the scope of consolidation (RTE and the UK networks), other external expenses were stable.

10 Personnel expenses

10.1 Personnel expenses

Personnel expenses comprise:

(in millions of Euros)	2011	2010
Wages and salaries	(7,119)	(7,513)
Social contributions	(1,346)	(1,459)
Employee profit sharing	(211)	(205)
Non-monetary benefits	(375)	(357)
Other expenses linked to short-term benefits	(206)	(215)
Short-term benefits	**(9,257)**	**(9,749)**
Expenses under defined-contribution plans	(730)	(733)
Expenses under defined-benefit plans	(812)	(855)
Post-employment benefits	**(1,542)**	**(1,588)**
Other long-term expenses	(116)	(89)
Termination payments	(2)	4
Other personnel expenses	**(118)**	**(85)**
Personnel expenses	**(10,917)**	**(11,422)**

10.2 Average workforce

	2011	2010 (1)
IEG status	96,385	103,319
Other	55,419	55,445
Total	**151,804**	**158,764**

(1) Including the average RTE workforce (8,670 employees)

Average workforce numbers are reported on a full-time equivalent basis.
Personnel corresponding to proportionally consolidated companies included pro rata with the Group's percentage interest represent the equivalent of 22,504 full-time employees at December 31, 2011 (21,467 full-time equivalent employees at December 31, 2010).

11 Taxes other than income taxes

Taxes other than income taxes break down as follows:

(in millions of Euros)	2011	2010
Payroll taxes	(209)	(231)
Energy taxes	(1,396)	(1,559)
Other non-income taxes	(1,496)	(1,437)
Taxes other than income taxes	**(3,101)**	**(3,227)**

12 Other operating income and expenses

Other operating income and expenses comprise:

(in millions of Euros)	2011	2010
Operating subsidies	3,679	2,705
Net expense associated with the TaRTAM transition tariff system	(132)	160
Net income on deconsolidation	140	78
Gains on disposal of property, plant and equipment	79	(109)
Net increase in provisions on current assets	(54)	(36)
Net increase in provisions for operating contingencies and losses	217	486
Other items	(268)	(194)
Other operating income and expenses	**3,661**	**3,090**

12.1 Operating subsidies

This item mainly comprises the subsidy received by EDF in respect of the Contribution to the Public Electricity Service (CSPE) introduced by the French Law of January 3, 2003. This contribution is payable by end-users (both eligible and non-eligible) and collected by network operators or electricity suppliers, which then pay it to the State.

In the financial statements, this compensation results in recognition of income of €3,556 million for 2011 (€2,605 million for 2010). The rise in CSPE income recorded in 2011 was largely due to significant increases in the volumes of purchase obligations for photovoltaic and wind power.

12.2 Net expense associated with the TaRTAM transition tariff system

Other operating income and expenses in 2011 also include a net expense of €(132) million for the TaRTAM transition tariff system: €(170) million resulting from the decision of July 4, 2011 issued after re-estimation of the cost by the French market regulator CRE (*Commission de Régulation de l'Energie*) based on information provided by the suppliers concerned, and €38 million principally reversed from residual provisions.

12.3 Net income on deconsolidation

In 2011, the net income on deconsolidation mainly includes the net gains on disposals of companies in the EDF Energies Nouvelles and EDF Trading subgroups. It also comprises a €28 million gain resulting from loss of control of Kogeneracja and Zielona Gora (see note 5.1.1).

In 2010, the net income on deconsolidation includes the net gains on disposals of the Eggborough plant by EDF Energy, and Usti (in the Czech Republic) by Dalkia International.

12.4 Gains on disposal of property, plant and equipment

The improvement in this item in 2011 chiefly results from gains on sales of real estate assets in France and the United Kingdom.

12.5 Net increase in provisions for operating contingencies and losses

In 2011, the net increase in provisions for operating contingencies and losses includes €332 million corresponding to reversals of negative fair value on British Energy commodity sales contracts recognized at the acquisition date of January 5, 2009, following their settlement (€532 million in 2010).

13 Prolongation of the transition tariff system (TaRTAM) - Laws of June 7 and December 7, 2010

A charge of €380 million (€401 million less €21 million reinvoiced to partners in the nuclear plants) was recorded in the consolidated financial statements at December 31, 2010 to reflect EDF's contribution to electricity supplier compensation for the second half of 2010 and the first half of 2011. This followed the extension of the TaRTAM transition tariff system until application of the principle of regulated access to historical nuclear energy (ARENH - *Accès Régulé à l'Electricité Nucléaire Historique*) from July 1, 2011.

14 Impairment / reversals

14.1 Impairment by category of asset

Details of impairment recognized and reversed are as follows:

(in millions of Euros)	Notes	2011	2010
Impairment of goodwill	**19**	(655)	(274)
Impairment of other intangible assets	**20**	(88)	(138)
Impairment of tangible assets	**22-23**	(620)	(1,331)
Reversal of the provision in respect of operations in Italy (1)	**33.1**	723	-
Impairment net of reversals		**(640)**	**(1,743)**

(1) Established in 2010 in "Other income and expenses" (€(750) million).

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

The following table gives details of impairment tests carried out on the main goodwill and other Group assets in 2011, and the key assumptions:

Segment	Cash-Generating Unit or Asset	Indicators of impairment	WACC after tax, 2011	Growth rate beyond medium-term	Impairment recognized in 2011 (in millions of Euros)
United Kingdom	EDF Energy - nuclear	NA	7.5%	-	-
United Kingdom	EDF Energy - ESCS	NA	7.5%	1.7%	-
Italy	Edison	Proposed sale of Edipower and contraction of margins in the electricity business	10.3% / 11.4% (1)	0 - 2%	(510)
Other International	EDF Luminus	Revision of nuclear policy in Belgium	6.9%	2%	-
Other activities	Dalkia International	Downscaling of renewable energy businesses in Italy and Spain	7.8%	1.9%	(118)
Other impairment of goodwill					(27)
Impairment of goodwill					**(655)**

(1) WACC before tax.

Segment	Cash-Generating Unit or Asset	Indicators of impairment	WACC after tax, 2011	Growth rate beyond medium-term	Impairment recognized in 2011 (in millions of Euros)
Italy	Edison	Proposed sale of Edipower and contraction of margins in the electricity business	10.3% / 11.4% (1)	0 - 2%	(515)
Other International	CENG	Decrease in the long term electricity prices in the United-States	7.1%	-	-
Other International	Bert	End of government support for cogeneration and new tariff regulations for heat sales	11.1%	-	(52)
Other activities	Dalkia International	Downscaling of renewable energy businesses in Italy and Spain	7.3%	1.9%	(33)
Other activities	Projects EDF Energies Nouvelles projects	New regulation of photovoltaic energy	5.7% to 9.1% depending on the country	-	(51)
Other impairment of tangible and intangible assets (excluding goodwill)					(57)
Impairment of tangible and intangible assets (excluding goodwill)					**(708)**

(1) WACC before tax.

United Kingdom

EDF Energy's goodwill amounts to €8,260 million at December 31, 2011. Impairment testing is based on two different Cash Generating Units:

- Nuclear activities, including British Energy and development of four EPRs;
- Energy Sourcing and Customer Supply (ESCS), including development of the West Burton plant.

The recoverable value of the nuclear activities is estimated based on discounted future net cash flows from the generation units over their estimated useful life, taking into consideration the probable extension of the useful lives by 5 years for three AGRs (Advanced Gas Reactors) and 20 years for Sizewell B. The approval in December 2010 of useful life extensions for the Heysham 1 and Hartlepool plants confirm the validity of the assumptions adopted by the Group. The assumptions regarding electricity price movements in the United Kingdom take account of the need to develop new generation facilities to meet demand from 2020, especially due to retirement of existing coal-fired plants, and a recovery in nuclear power by that time. It was assumed the greenhouse gas emission quota prices used for the impairment tests were determined on a basis that reflects the energy market reforms.

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

The recoverable value of ESCS is based on the value in use, determined by reference to the entity's 5-year medium-term plan. Terminal value is determined using an after-tax growth rate to infinity of 1.7%.

Italy

In 2010, the Group established a provision of €750 million in respect of operations in Italy (Edison, TDE and Fenice). In 2011, in view of the impairment recorded by Group subsidiaries in Italy as detailed below, an amount of €668 million was reversed from this provision (€723 million before the effects of tax and minority interests).

<u>Finalization of Edison and TDE 2010 financial statements</u>

The Group has recorded impairment of €(569) million as a result of the 2010 financial statements for Edison and TDE (released in March 2011) which were not finalized when the EDF group established its own 2010 financial statements.

<u>Impairment tests of Edison in 2011</u>

Since Edison is due to the disposal of its investment in Edipower to Delmi as described in note 3.1.1, in compliance with IFRS 5 the value of this investment (including a share of goodwill) has been adjusted to its probable realizable value net of selling expenses. This has led to recognition of impairment of €(280) million (EDF's share).

The annual impairment test of Edison is based on two different groups of CGUs: Electricity, and Hydrocarbons. The recoverable value of activities is based on future cash flows as estimated in the 8-year plan and a terminal value with growth rate to infinity of between 0 and 2%. The pre-tax discount rate applied to cash flows is 10.3% for Electricity and 11.4% for Hydrocarbons. As a result of this test, €(106) million of impairment (EDF's share) was booked against the Electricity business. The recoverable value of the Hydrocarbons business is higher than its book value.

Following the decline in generation volumes and margins at certain power plants, and changes in Italian regulations, impairment net of reversals of €(70) million (EDF's share) is also booked in respect of Edison's generation assets. The impairment tests consider flows over these assets' useful lives.

Edison's value in use at December 31, 2011 is sensitive to assumptions regarding long-term movements in electricity prices in Italy, and renegotiations on long-term gas supply contracts.

In all, the Group has recognized a total of €(1,025) million before tax in impairment of Edison. Edison's goodwill after this impairment amounts to €1,400 million at December 31, 2011.

Other international

<u>EDF Luminus</u>

EDF Luminus' goodwill amounts to €378 million at December 31, 2011. For the purposes of impairment testing EDF Luminus is considered as a single cash-generating unit. The recoverable value is based on its value in use, determined using cash flows over 20 years and a terminal value.
Under the plan adopted by Belgian political parties in October 2011 to withdraw from civil nuclear energy, all Belgian nuclear power plants are to close by 2025, but to avoid any shortages this plan will only be implemented if alternative non-nuclear power sources are available. For the purposes of determining cash flows, it is thus considered that the nuclear plants in which EDF Luminus holds investments will close by 2025, and that the electricity generated by those plants will be replaced by power from a combined cycle gas plant.

<u>CENG</u>

The recoverable value of CENG is based on its value in use, determined using cash flows over the useful lives of the entity's nuclear generation plants, discounted at the rate of 7.1% after tax.
No impairment was recorded as a result of the impairment test carried out in 2011 following a downward adjustment in electricity price scenarios.
CENG's value in use is sensitive to assumptions regarding long-term movements in electricity prices in the United States, and to WACC.

Other activities

After impairment, Dalkia International's goodwill amounts to €799 million at December 31, 2011. The recoverable value of its assets is based on values in use drawn from the 5-year medium-term plans. The significant cutback in renewable energy business in Italy (and to a lesser extent Spain) has led to recognition of a total €(151) million of impairment on assets.

15 Other income and expenses

Other income and expenses in 2011 included:

- income of €414 million corresponding to reversals from provisions for renewal of ERDF's concession assets, following a change in estimate for the useful life of low-voltage twisted overhead pipes (which has been extended from 40 to 50 years).
- income of €276 million corresponding to the gain on sale of EnBW (see note 3.3).

Other income and expenses for 2010 mainly included:

- an expense of €(750) million corresponding to a provision in respect of the Italy segment;
- an expense of €(93) million corresponding to the agreements signed on November 3, 2010 with CEG;
- income of €46 million corresponding to the gain on the sale of networks activities in the United Kingdom.

16 Financial result

16.1 Cost of gross financial indebtedness

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

(in millions of Euros)	2011	2010
Interest expenses on financing operations	(2,284)	(2,724)
Change in the fair value of derivatives and hedges of liabilities	(5)	(1)
Transfer to income of changes in the fair value of cash flow hedges	(3)	(10)
Net foreign exchange gain on indebtedness	21	(19)
Cost of gross financial indebtedness	**(2,271)**	**(2,754)**

The decrease in interest expenses is largely due to the lower average gross financial indebtedness following debt reduction operations of late 2010 and early 2011 (sale of the UK network activities and EnBW, application of the equity method to RTE from December 31, 2010).

16.2 Discount effect

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

Details of this expense are as follows:

(in millions of Euros)	2011	2010
Provisions for long-term and post-employment employee benefits	(1,337)	(1,435)
Provisions for back-end nuclear cycle, decommissioning and last cores	(1,554)	(1,510)
Other provisions and advances	(173)	(189)
Discount effect	**(3,064)**	**(3,134)**

16.3 Other financial income and expenses

Other financial income and expenses comprise:

(in millions of Euros)	2011	2010
Financial income on cash and cash equivalents	44	23
Gains (losses) on available-for-sale financial assets	137	301
Gains (losses) on other financial assets	568	204
Changes in financial instruments carried at fair value with changes in fair value included in income	86	(27)
Other financial expenses	(95)	(62)
Foreign exchange gain/loss on financial items other than debts	(36)	82
Return on hedging assets	597	715
Capitalized borrowing costs	254	226
Other financial income and expenses	**1,555**	**1,462**

Gains net of expenses on available-for-sale financial assets include gains on disposals, interest income, and dividends. The fair value of Veolia Environnement shares at December 31, 2011 was more than 50% lower than their historical value, and as a result impairment of €(340) million was recorded against available-for-sale financial assets.

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

17 Income taxes

17.1 Breakdown of tax expense

Details are as follows:

(in millions of Euros)	2011	2010
Current tax expense	(1,690)	(1,385)
Deferred taxes	385	306
Total	**(1,305)**	**(1,079)**

In 2011, €(1,005) million of the current tax expense relates to EDF's tax consolidated group, and €(685) million to other subsidiaries (€(660) million and €(725) million respectively in 2010).

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

(in millions of Euros)	2011	2010
Income of consolidated companies before tax	**4,506**	**1,814**
Income tax rate applicable to the parent company	36.10%	34.43%
Theoretical tax expense	**(1,627)**	**(625)**
Differences in tax rate	323	219
Permanent differences	47	(129)
Taxes without basis	(78)	42
Net depreciation of deferred tax assets	31	(587)
Other	(1)	1
Actual tax expense	**(1,305)**	**(1,079)**
Effective tax rate	**28.96%**	**59.48%**

The effective tax rate for 2011 and 2010 was driven up by impairment and the provision established for the Italy segment. Excluding these factors, the effective tax rate is 26.6% and 29.6% respectively for 2011 and 2010.

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

- 2011:
  - the positive impact of differences in tax rates applicable to foreign subsidiaries (€323 million);
  - the positive effect of reversals of depreciation of deferred tax assets (€114 million), mainly in the French tax consolidation group.

- 2010:
  - the positive impact of differences in tax rates applicable to foreign subsidiaries (€219 million);
  - the negative effect of taxation of certain components of the gain on disposal of network activities in the United Kingdom (in particular, the tax effect on hedges of net investments in foreign operations transferred to income) (€(161) million);
  - the positive effect of reversals of depreciation of deferred tax assets (€95 million), mainly in the French tax consolidation group.

17.3 Change in deferred tax assets and liabilities

(in millions of Euros)	**2011**
Deferred tax assets	2,125
Deferred tax liabilities	(4,894)
Net deferred taxes at January 1	**(2,769)**
Change in net income	385
Change in equity	420
Translation adjustments	(44)
Changes in scope of consolidation	(18)
Other movements	54
Net deferred taxes at December 31	**(1,972)**
- Deferred tax assets	2,507
- Deferred tax liabilities	(4,479)

17.4 Breakdown of deferred tax assets and liabilities by nature

(in millions of Euros)	**12.31.2011**	**12.31.2010**
Deferred tax assets:		
Differences between depreciation recorded for accounting and tax purposes	83	58
Non-deductible provisions for pension obligations	3,974	3,829
Other non-deductible provisions	546	1,199
Other deductible temporary differences	1,214	1,016
Revaluations, revaluation surplus and elimination of intercompany profit	622	512
Tax losses and unused tax credits	720	326
Netting of deferred tax assets and liabilities	(3,338)	(3,348)
Deferred tax assets	**3,821**	**3,592**
Unrecorded deferred tax assets	(1,314)	(1,467)
Deferred tax assets in balance sheet	**2,507**	**2,125**
Deferred tax liabilities:		
Differences between depreciation recorded for accounting and tax purposes	(5,785)	(5,892)
Other taxable temporary differences	(510)	(910)
Revaluations, revaluation surplus and elimination of intercompany profit	(1,522)	(1,440)
Netting of deferred tax assets and liabilities	3,338	3,348
Deferred tax liabilities in balance sheet	**(4,479)**	**(4,894)**
Net deferred taxes	**(1,972)**	**(2,769)**

At December 31, 2011, unrecorded deferred tax assets represent a potential tax saving of €1,314 million (€1,467 million at December 31, 2010). Of the potential tax saving in 2011, €556 million relates to deferred tax assets, mainly on employee benefits in France (€658 million at December 31, 2010).

18 Basic earnings per share and diluted earnings per share

The diluted earnings per share is calculated by dividing the Group's share of net income, corrected for dilutive instruments, by the weighted average number of potential shares outstanding over the period after elimination of treasury shares.
At December 31, 2011, there is no dilutive instrument in the EDF group.
The following table shows the reconciliation of the basic and diluted earnings used to calculate earnings per share, and the variation in the weighted average number of shares used in calculating basic and diluted earnings per share:

(in millions of Euros)	**2011**	**2010**
Net income attributable to ordinary shares	3,010	1,020
Effect of dilutive instruments	-	-
Net income used to calculated diluted earnings per share	**3,010**	**1,020**
Including: net income of continuing operations	***3,010***	***634***
Including: net income of discontinued operations	***-***	***386***
Average weighted number of ordinary shares outstanding during the year	**1,847,318,156**	**1,848,403,320**
Average weighted number of diluted shares outstanding during the year	**1,847,318,156**	**1,848,403,320**

Earnings per share (in Euros):		
Net earnings per share	**1.63**	**0.55**
Diluted earnings per share	**1.63**	**0.55**
Earnings per share of continuing operations	1.63	0.34
Diluted earnings per share of continuing operations	1.63	0.34
Earnings per share of discontinued operations	-	0.21
Diluted earnings per share of discontinued operations	-	0.21

OPERATING ASSETS AND LIABILITIES, EQUITY

19 Goodwill

19.1 Changes in goodwill

Goodwill on consolidated entities comprises the following:

(in millions of Euros)	12.31.2011	12.31.2010
Net book value at opening date	**12,028**	**13,526**
Acquisitions	21	200
Disposals	(14)	(116)
Impairment (note 14)	(655)	(274)
Translation adjustments	239	306
Changes in scope of consolidation and other	29	(1,614)
Net book value at closing date	**11,648**	**12,028**
Gross value at closing date	13,415	13,140
Accumulated impairment at closing date	(1,767)	(1,112)

The changes in goodwill in 2011 primarily relate to:

- impairment amounting to €(655) million, mainly concerning Edison and Dalkia (see note 14),
- translation adjustments of €239 million, largely due to the rise of the Pound sterling against the Euro.

The changes in goodwill in 2010 primarily related to the following:

- acquisitions totaling €200 million, including €140 million for the acquisition of PRE by EnBW;
- disposals totaling €(116) million, chiefly the sale of networks in the United Kingdom;
- impairment totaling €(274) million;
- other movements totaling €(1,614) million, including €(1,482) million related to the classification of EnBW goodwill as “discontinued operations” and €(102) million resulting from finalization of the initial balance sheets for EDF Luminus.

19.2 Goodwill by operating segment

The breakdown of goodwill is as follows:

(in millions of Euros)	12.31.2011	12.31.2010
EDF Energy	8,260	7,972
Total: United Kingdom	**8,260**	**7,972**
Edison	1,400	1,910
Total: Italy	**1,400**	**1,910**
EDF Luminus (Belgium)	378	378
ESTAG (Austria)	112	114
Other	109	112
Total: Other International	**599**	**604**
Dalkia International	799	907
EDF Energies Nouvelles	209	255
Other	381	380
Total: Other activities	**1,389**	**1,542**
GROUP TOTAL	**11,648**	**12,028**

20 Other intangible assets

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

- At December 31, 2011

(in millions of Euros)	12.31.2010	Acquisitions	Disposals	Translation adjustments	Changes in scope	Other movements	12.31.2011
Greenhouse gas emission rights - Green Certificates	439	458	(590)	2	-	57	**366**
Other intangible assets	6,070	758	(187)	23	(8)	(58)	**6,598**
Gross values	**6,509**	**1,216**	**(777)**	**25**	**(8)**	**(1)**	**6,964**
Accumulated amortization and impairment	(1,893)	(493)	183	(6)	13	(66)	**(2,262)**
Net values	**4,616**	**723**	**(594)**	**19**	**5**	**(67)**	**4,702**

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

- At December 31, 2010

(in millions of Euros)	12.31.2009	Acquisitions	Disposals	Translation adjustments	Changes in scope	Other movements	12.31.2010
Greenhouse gas emission rights - Green Certificates	708	777	(978)	11	(79)	-	**439**
Other intangible assets	6,900	686	(172)	62	(1,314)	(92)	**6,070**
Gross values	**7,608**	**1,463**	**(1,150)**	**73**	**(1,393)**	**(92)**	**6,509**
Accumulated amortization and impairment	(2,029)	(722)	155	(11)	689	25	**(1,893)**
Net values	**5,579**	**741**	**(995)**	**62**	**(704)**	**(67)**	**4,616**

Impairment of €(138) million was booked on other intangible assets in 2010.

EDF's research and development expenses recorded in the income statement total €518 million for the year ended December 31, 2011 (€486 million for the year ended December 31, 2010).

21 Property, plant and equipment operated under French public electricity distribution concessions

21.1 Net value of property, plant and equipment operated under French public electricity distribution concessions

(in millions of Euros)	12.31.2011	12.31.2010
Property, plant and equipment	44,342	42,836
Property, plant and equipment in progress	1,159	1,069
Property, plant and equipment operated under French public electricity distribution concessions	**45,501**	**43,905**

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

(in millions of Euros)	Land and buildings	Networks	Other installations, plant, machinery, equipment & other	Total
Gross value at 12.31.2010	**2,104**	**69,445**	**3,028**	**74,577**
Increases (1)	62	3,399	281	3,742
Decreases	(28)	(499)	(151)	(678)
Other movements	-	-	-	-
Gross value at 12.31.2011	**2,138**	**72,345**	**3,158**	**77,641**
Depreciation and impairment at 12.31.2010	**(1,146)**	**(28,581)**	**(2,014)**	**(31,741)**
Net depreciation	(34)	(174)	(121)	**(329)**
Disposals	25	384	150	**559**
Other movements (2)	(9)	(1,695)	(84)	**(1,788)**
Depreciation and impairment at 12.31.2011	**(1,164)**	**(30,066)**	**(2,069)**	**(33,299)**
Net values at 12.31.2010	**958**	**40,864**	**1,014**	**42,836**
Net values at 12.31.2011	**974**	**42,279**	**1,089**	**44,342**

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

22 Property, plant and equipment operated under concessions for other activities

22.1 Net value of property, plant and equipment operated under concessions for other activities

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

(in millions of Euros)	12.31.2011	12.31.2010
Property, plant and equipment	5,326	5,432
Property, plant and equipment in progress	696	595
Property, plant and equipment operated under concessions for other activities	**6,022**	**6,027**

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

(in millions of Euros)	Land and buildings	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery, equipment & other	Total
Gross value at 12.31.2010	**1,270**	**9,279**	**547**	**1,123**	**12,219**
Increases	28	317	41	55	441
Decreases	(5)	(22)	(2)	(17)	(46)
Translation adjustments	(3)	10	(63)	20	(36)
Changes in the scope of consolidation	(28)	(253)	-	-	(281)
Other movements	(22)	(97)	1	6	(112)
Gross value at 12.31.2011	**1,240**	**9,234**	**524**	**1,187**	**12,185**
Depreciation and impairment at 12.31.2010	**(795)**	**(5,082)**	**(262)**	**(648)**	**(6,787)**
Net depreciation	(24)	(228)	(26)	(42)	**(320)**
Impairment net of reversals	-	(4)	-	(24)	**(28)**
Disposals	4	16	2	16	**38**
Translation adjustments	1	(4)	31	(11)	**17**
Changes in the scope of consolidation	6	88	-	-	**94**
Other movements	21	123	(6)	(11)	**127**
Depreciation and impairment at 12.31.2011	**(787)**	**(5,091)**	**(261)**	**(720)**	**(6,859)**
Net value at 12.31.2010	**475**	**4,197**	**285**	**475**	**5,432**
Net value at 12.31.2011	**453**	**4,143**	**263**	**467**	**5,326**

Property, plant and equipment operated under concessions other than French public electricity distribution concessions comprise at December 31, 2011 concession facilities mainly located in France (hydropower) and Italy.

23 Property, plant and equipment used in generation and other tangible assets owned by the Group

23.1 Net value of property, plant and equipment used in generation and other tangible assets owned by the Group

The net value of property, plant and equipment used in generation and other tangible assets owned by the Group breaks down as follows:

(in millions of Euros)	12.31.2011	12.31.2010
Property, plant and equipment	47,184	46,730
Property, plant and equipment in progress	12,951	10,101
Finance-leased property, plant and equipment	310	437
Property, plant and equipment used in generation and other tangible assets owned by the Group	**60,445**	**57,268**

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

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

(in millions of Euros)	Land and buildings	Nuclear power plants	Fossil-fired & hydropower plants	Networks	Other installations, plant, machinery & equipment & other	Total
Gross value at 12.31.2010	**11,459**	**61,648**	**15,376**	**845**	**11,319**	**100,647**
Increases	422	1,289	956	31	2,062	**4,760**
Decreases	(134)	(434)	(212)	(5)	(407)	**(1,192)**
Translation adjustments	(49)	439	(78)	(2)	(44)	**266**
Changes in the scope of consolidation	(184)	-	(1,217)	(18)	318	**(1,101)**
Other movements	67	101	79	(30)	(75)	**142**
Gross value at 12.31.2011	**11,581**	**63,043**	**14,904**	**821**	**13,173**	**103,522**
Depreciation and impairment at 12.31.2010	**(6,155)**	**(34,009)**	**(8,791)**	**(434)**	**(4,528)**	**(53,917)**
Net depreciation	(302)	(2,034)	(589)	(26)	(723)	**(3,674)**
Impairment net of reversals	(15)	-	(480)	-	(68)	**(563)**
Disposals	92	360	207	3	376	**1,038**
Translation adjustments	30	(101)	49	1	43	**22**
Changes in the scope of consolidation	110	-	810	4	(203)	**721**
Other movements	(35)	(1)	60	22	(11)	**35**
Depreciation and impairment at 12.31.2011	**(6,275)**	**(35,785)**	**(8,734)**	**(430)**	**(5,114)**	**(56,338)**
Net value at 12.31.2010	**5,304**	**27,639**	**6,585**	**411**	**6,791**	**46,730**
Net value at 12.31.2011	**5,306**	**27,258**	**6,170**	**391**	**8,059**	**47,184**

23.3 Finance lease contracts

	12.31.2011				**12.31.2010**
		Maturity			
(in millions of Euros)	**Total**	**< 1 year**	**1 - 5 years**	**> 5 years**	**Total**
Future minimum lease payments receivable as lessor	**60**	16	39	5	**65**
Future minimum lease payments payable as lessee	**149**	22	76	51	**235**

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

The Group is bound as lessee by irrevocable finance lease contracts for premises, equipment and vehicles used in the course of its business. The corresponding payments are subject to renegotiation at intervals defined in the contracts.

24 Investments in associates

Investments in associates are as follows:

(in millions of Euros)	Principal activity [1]	Ownership %	12.31.2011 Share of net equity	12.31.2011 Share of net income	12.31.2010 Share of net equity	12.31.2010 Share of net income
RTE	T	100.00	4,737	266	4,649	-
ALPIQ	G	25.00	1,419	(276)	1,746	107
Taishan	G	30.00	688	-	541	-
Dalkia Holding	O	34.00	443	23	470	24
NTPC	G	40.00	125	23	133	29
Other investments in associates			272	9	315	(26)
Total			**7,684**	**45**	**7,854**	**134**

(1) G = generation, D = distribution, T= transmission, O = Other

24.1 RTE

24.1.1 RTE - financial indicators

The key financial indicators for RTE for 2011 are as follows:

(in millions of Euros)	
2011 Operating profit before depreciation and amortization	1,355
2011 Net income	266
Equity at December 31, 2011	4,737
Balance sheet total at December 31, 2011	14,611
Net indebtedness at December 31, 2011	6,578

24.1.2 Transactions between the EDF group and RTE

At December 31, 2011 the main transactions between the EDF group and RTE were as follows.

Sales

ERDF uses RTE's high-voltage and very high-voltage networks to convey energy from its point of generation to the distribution networks. This service generated €3,055 million in sales revenues for RTE from ERDF over 2011.

In executing its responsibility to ensure balance in the electricity system, in 2011 RTE also undertook:
- energy purchases and sales with EDF, amounting to €180 million and €341 million respectively;
- system service purchases from EDF amounting to €283 million.

Other transactions

The EDF group contributes to financing of RTE through loans amounting to a total of €1,400 million at December 31, 2011 (€1,914 million at December 31, 2010). EDF received a total of €81 million in interest expenses on this loan in 2011.

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

24.2 ALPIQ

24.2.1 Published financial indicators

The main published indicators by the ALPIQ group for 2010 were as follows:

(in millions of Euros)	
2010 Sales	10,205
2010 Net income	467
Equity at December 31, 2010	6,223
Balance sheet total at December 31, 2010	14,778

24.2.2 Impairment

In a restructuring and reorganization plan announced on November 4, 2011, ALPIQ decided to refocus business on Switzerland and certain international sectors. Impairment of €320 million (EDF's share) was recognized in investments in associates in the Group's consolidated financial statements. This impairment, recorded by ALPIQ in its consolidated accounts, mainly concerned its investment in Romande Energie in Switzerland, and in Edipower and A2A in Italy.

25 Inventories

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

	12.31.2011			12.31.2010		
(in millions of Euros)	Gross value	Provisions	Net value	Gross value	Provisions	Net value
Nuclear fuel	9,848	(13)	**9,835**	9,551	(12)	**9,539**
Other fuel	1,963	(8)	**1,955**	1,678	(8)	**1,670**
Other raw materials	1,095	(196)	**899**	1,004	(182)	**822**
Work-in-progress for production of goods and services	553	(11)	**542**	315	(6)	**309**
Other inventories	378	(28)	**350**	377	(32)	**345**
Total inventories	**13,837**	**(256)**	**13,581**	**12,925**	**(240)**	**12,685**

The long-term portion (more than one year) mainly concerns nuclear fuel inventories amounting to €6,778 million (€7,146 million at December 31, 2010).
The value of EDF Trading's inventories stated at market value is €943 million at December 31, 2011 (€825 million at December 31, 2010).

26 Trade receivables

Details of net trade receivables are as follows:

(in millions of Euros)	12.31.2011	12.31.2010
Trade receivables, gross value – excluding EDF Trading	17,962	17,786
Trade receivables, gross value – EDF Trading	3,613	2,375
Impairment	(667)	(637)
Trade receivables, net value	**20,908**	**19,524**

Most trade receivables mature within one year.

The credit risk on trade receivables is shown below:

(in millions of Euros)	12.31.2011 Gross values	12.31.2011 Impairment	12.31.2011 Net values	12.31.2010 Gross values	12.31.2010 Impairment	12.31.2010 Net values
Trade receivables	**21,575**	**(667)**	**20,908**	**20,161**	**(637)**	**19,524**
- overdue by up to 6 months	2,019	(193)	1,826	1,690	(182)	1,508
- overdue by 6-12 months	506	(125)	381	365	(120)	245
- overdue by more than 12 months	670	(278)	392	584	(272)	312
Trade receivables due	**3,195**	**(596)**	**2,599**	**2,639**	**(574)**	**2,065**
Trade receivables not yet due	**18,380**	**(71)**	**18,309**	**17,522**	**(63)**	**17,459**

Securitization of trade receivables is undertaken on a recurrent basis, principally by Edison. EDF's share amounts to €2,572 million at December 31, 2011 (€2,122 million at December 31, 2010). As securitization is without recourse, the corresponding receivables are not carried in the Group's consolidated balance sheet.

27 Other receivables

Details of other receivables are as follows:

(in millions of Euros)	12.31.2011	12.31.2010
Prepaid expenses	621	513
Other receivables	9,688	8,806
Other receivables	**10,309**	**9,319**
- Gross value	10,363	9,362
- Impairment	(54)	(43)

Most other receivables mature within one year.

"Other receivables" comprise EDF SA's CSPE receivable, amounting to €3,821 million at December 31, 2011 (€2,812 million at December 31, 2010).

They also include various amounts receivable from the French State and local authorities (including €1,582 million of VAT receivables at December 31, 2011 for EDF SA).

28 Equity

28.1 Share capital

At December 31, 2011, the share capital amounted to €924,433,331, comprising 1,848,866,662 fully subscribed and paid-up shares with nominal value of €0.50 each, owned 84.4% by the French State, 13.7% by the public (institutional and private investors), 1.8% by current and retired Group employees and 0.1% held by EDF as treasury shares.

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

A capital increase of €306 million (11,945,448 EDF shares) took place on June 24, 2011 through the simplified alternative public cash or exchange offer for EDF Energies Nouvelles shares (see note 3.2).
Share repurchases were also undertaken for a total of €324 million in order to neutralize this operation's dilutive effect on EDF shareholders' percentage control. This neutralization became effective on September 28, 2011 after a reduction in the capital of EDF SA through cancellation of treasury shares.

28.2 Treasury shares

A share repurchase program authorized by the General Shareholders' Meeting of June 9, 2006 was implemented by the Board of Directors, within the limits of 10% of the total number of shares making up the Company's capital. The initial duration of the program is 18 months, renewed for 12 months then by tacit agreement every year.
Under this share repurchase program, for which a liquidity contract exists as required by the market regulator AMF, 3,932,499 shares were acquired during 2011 for a total of € 99 million, and 3,305,464 shares were sold for a total of €92 million.

Over the same period, 11,945,448 treasury shares were purchased for €324 million as a result of the simplified public cash or exchange offer for EDF Energies Nouvelles shares. These shares were subsequently cancelled via a capital reduction at EDF SA on September 28, 2011 (see notes 3.2 and 28.1).

At December 31, 2011, treasury shares deducted from consolidated equity represent 1,175,594 shares with total value of €26 million.

28.3 Dividends

The General Shareholders' Meeting of May 24, 2011 decided to distribute a dividend of €1.15 per share in circulation in respect of 2010. Interim dividends of €0.57 per share had been paid out on December 17, 2010, and the balance of €0.58 per share amounting to a total of €1,069 million was paid out on June 6, 2011.

On November 22, 2011, the Board of Directors decided to distribute an interim dividend of €0.57 per share or a total of €1,053 million for 2011, paid out in cash on December 16, 2011.

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

29 Provisions

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

		12.31.2011			12.31.2010		
(in millions of Euros)	Notes	Current	Non-current	Total	Current	Non-current	Total
Provisions for back-end nuclear cycle		1,302	17,528	**18,830**	1,020	17,000	**18,020**
Provisions for decommissioning and last cores		173	19,670	**19,843**	241	18,630	**18,871**
Provisions related to nuclear generation	**30**	**1,475**	**37,198**	**38,673**	**1,261**	**35,630**	**36,891**
Provisions for decommissioning of non-nuclear facilities	**31**	**41**	**809**	**850**	**60**	**753**	**813**
Provisions for employee benefits	**32**	**846**	**12,215**	**13,061**	**819**	**11,745**	**12,564**
Other provisions	**33**	**1,606**	**1,338**	**2,944**	**2,870**	**1,337**	**4,207**
Total provisions		**3,968**	**51,560**	**55,528**	**5,010**	**49,465**	**54,475**

30 Provisions related to nuclear generation – Back-end nuclear cycle, plant decommissioning and last cores

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

Provisions are estimated under the principles presented in note 1.3.2.1 and 1.3.23.
Obligations can vary noticeably depending on each country's legislation and regulations, and the technologies and industrial practices used in each company.

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

(in millions of Euros)	12.31.2010	Increases	Decreases		Changes in scope	Other movements	12.31.2011
			Utilizations	Reversals			
Provisions for spent nuclear fuel management	11,024	834	(540)	(22)	-	234	**11,530**
Provisions for long-term radioactive waste management	6,996	358	(150)	(1)	-	97	**7,300**
Provisions for back-end nuclear cycle	***18,020***	***1,192***	***(690)***	***(23)***	***-***	***331***	***18,830***
Provisions for nuclear plant decommissioning	15,739	626	(262)	-	-	327	**16,430**
Provisions for last cores	3,132	167	-	-	-	114	**3,413**
Provisions for decommissioning and last cores	***18,871***	***793***	***(262)***	***-***	***-***	***441***	***19,843***
Provisions related to nuclear generation	**36,891**	**1,985**	**(952)**	**(23)**	**-**	**772**	**38,673**

Other changes in provisions related to nuclear generation reflect the change in amounts reimbursable by the NLF and the British government for coverage of EDF Energy's long-term nuclear obligations, totaling €596 million (see note 37.4).

The breakdown of provisions by company is shown below:

(in millions of Euros)	EDF	EDF Energy	CENG	Other entities	Total
	Note 30.1	Note 30.2	Note 30.3	Note 30.4	
Provisions for spent fuel management	9,143	2,385	-	2	11,530
Provisions for long-term radioactive waste management	6,722	577	-	1	7,300
Provisions for back-end nuclear cycle at 12.31.2011	**15,865**	**2,962**	**-**	**3**	**18,830**
Provisions for back-end nuclear cycle at 12.31.2010	**15,360**	**2,657**	**-**	**3**	**18,020**
Provisions for nuclear plant decommissioning	11,366	4,437	472	155	16,430
Provisions for last cores	2,012	1,354	47	-	3,413
Provisions for decommissioning and last cores at 12.31.2011	**13,378**	**5,791**	**519**	**155**	**19,843**
Provisions for decommissioning and last cores at 12.31.2010	**12,937**	**5,335**	**470**	**129**	**18,871**

30.1 Nuclear provisions in France

In France, EDF's provisions are calculated in accordance with the instructions of the law of June 28, 2006 and its implementing provisions.
In compliance with the regulation on secure financing of nuclear expenses:
- EDF books provisions to cover all obligations related to the nuclear facilities it operates;
- EDF is building up a portfolio of dedicated assets to secure financing of long-term obligations (see note 48).

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

30.1.1 Provisions for spent fuel management

These provisions cover services in connection with the following:
- removal of spent fuel from EDF's generation centers, as well as reception and interim storage;
- processing, including conditioning and storage of recyclable matter and waste resulting from this processing.

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

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

For fuel in reactors but not yet irradiated, provisions are booked against an increase in the value of the fuel included in inventories.

30.1.2 Provisions for long-term radioactive waste management

This includes future expenses for:
- removal and storage of radioactive waste resulting from decommissioning of regulated nuclear installations operated by EDF;
- removal and storage of radioactive waste packages resulting from spent fuel processing at La Hague;
- long-term and direct storage of spent fuel that cannot be recycled on an industrial scale in existing installations: plutonium or uranium fuel derived from enriched processing, fuel from Creys Malville and Brennilis;
- EDF's share of the costs of studies, coverage, shutdown and surveillance of storage centers:
  - existing centers, for very low-level waste, and low and medium-level waste;
  - new centers to be opened, for long-life low-level waste and long-life medium and high-level waste.

The volumes of waste concerned by provisions include packages of existing waste and all waste to be conditioned, resulting from plant decommissioning or spent fuel processing at La Hague (based on all fuel in reactors at December 31, burnt or otherwise). These volumes are regularly reviewed, in keeping with the data declared for the purposes of the national waste inventory undertaken by the French agency for radioactive waste management ANDRA (*Agence nationale pour la gestion des déchets radioactifs*).

For waste resulting from decommissioning of plants in operation, the accounting treatment is identical to the treatment of decommissioning expenses: an asset corresponding to the provision is recognized under the accounting policies described in note 1.3.13.1.

For future waste that will result from fuel currently in reactors but not yet irradiated, provisions are booked against an increase in the value of the fuel included in inventories.

The provision for long-life medium and high-level waste is the largest component of the provisions for long-term radioactive waste management. The French Law of June 28, 2006 on the sustainable management of radioactive materials and waste has confirmed EDF's assumption of geological storage. Provisions are based on that assumption.

Since 2005, the gross value and disbursement schedules for forecast expenses have been based on a scenario of industrial geological waste storage, following conclusions presented in the first half of 2005 by the task force set up by the French department for Energy and Raw Materials (*Direction Générale de l'Energie et des Matières Premières* – DGEMP, which has since become the French department for Energy and Climate - *Direction Générale de l'Energie et du Climat* or DGEC) comprising members representing the relevant government departments (DGEMP, the State investment agency APE and the Budget Department), ANDRA and the producers of waste (EDF, AREVA, CEA). The approach applied by EDF to the working group's conclusions is reasonable and coherent with information available internationally.

In 2011 ANDRA and waste producers set up a partnership aiming to facilitate the completion of the geological storage project by a leverage of all the skills involved in the French nuclear industry. This partnership will include joint studies on targeted issues and organize an interface between the ANDRA project team and nuclear operators, such that they can make well-informed, relevant contributions to governance of the project. The ANDRA has drawn up specifications for early conceptional studies to be carried out in 2012, with project management taking into consideration many of the design options proposed by the waste producers, either as the reference or variations. Estimation of the cost will only be resulted after completion of these studies. Ultimately, the finalization of the new reference cost for storage of long-life medium and high-level waste is due to be established before the public debate scheduled for 2013.

Regarding the provision for long-life low-level waste, the search for a storage site has been suspended following withdrawal of two sites selected by ANDRA. ANDRA is due to submit a report to the French government in late 2012 with various proposals for management of this type of waste and the conditions for resuming the search for a site (2013 at the earliest). Despite significant delays and the financial risks involved, the calculation method for the provision for storage of long-life low-level waste remains unchanged and should cover most of the alternative scenarios that are currently being examined jointly by EDF and ANDRA.

30.1.3 Decommissioning provisions for nuclear power plants

These provisions concern the decommissioning of pressurized water reactor (PWR) nuclear power plants currently in operation, and nuclear power plants that have been permanently shut down.
They are estimated on the assumption that once decommissioning is complete, the sites will be returned to their original state and the land reused.

For plants still in operation, a tangible fixed asset has been created against the provision, applying the accounting principles presented in note 1.3.13.1.
When some of the decommissioning costs for a plant are to be borne by a partner, the expected reimbursement is recognized as accrued income in the assets. The difference between the provision and the accrued income is recorded as a tangible asset, and subsequent payments made by the partner are deducted from the accrued income.

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

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

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

International intercomparison studies carried out by a specialist firm support the results of this study.

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

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

The provision is based on contractor quotes (costs and schedules) updated in 2008, which take into account changes in technical and financial assumptions, experience of decommissioning operations currently in process and an intercomparison study. The quotes will be re-examined during 2012.

30.1.4 Provision for last cores

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

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

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

30.1.5 Discounting of provisions related to nuclear generation and sensitivity analyses

30.1.5.1 Discount rate

EDF applies a nominal discount rate of 5% in calculating its provisions, together with assumed inflation of 2%, resulting in an effective rate of close to 3%.

- Calculation of the discount rate

The discount rate is determined based on long-series data for a sample of bonds with maturities as close as possible to that of the liability. However, some expenses covered by these provisions will be disbursed over periods significantly longer than the duration of instruments generally traded on the financial markets.

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

The assumed inflation rate used is coherent with the forecasts provided by consensus and expected inflation based on the returns on inflation-linked bonds.

- Revision of the discount rate

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

The discount rate applied complies with the two limits set by the decree of February 23, 2007 and the decision of March 21, 2007. It must remain below:

- a regulatory maximum “equal to the arithmetic average over the forty-eight most recent months of the constant 30-year rate (TEC 30 years), observed on the last date of the period concerned, plus one point”;
- and the expected rate of return on assets covering the liability (dedicated assets).

30.1.5.2 Analyses of sensitivity to macro-economic assumptions

Sensitivity to assumptions concerning costs, inflation rate, long-term discount rate, and disbursement schedules can be estimated through comparison of the gross amount estimated under year-end economic conditions with the discounted value of the amount.

	12.31.2011		12.31.2010	
(in millions of Euros)	Costs based on year-end economic conditions	Amounts in provisions at present value	Costs based on year-end economic conditions	Amounts in provisions at present value
Spent fuel management	14,844	9,143	14,386	8,852
Long-term radioactive waste management	23,801	6,722	23,017	6,508
Back-end nuclear cycle expenses	**38,645**	**15,865**	**37,403**	**15,360**
Decommissioning provisions for nuclear power plants	21,108	11,366	20,903	11,031
Provisions for last cores	3,888	2,012	3,792	1,906
Provision for decommissioning and last cores	**24,996**	**13,378**	**24,695**	**12,937**

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

In application of article 11 of the decree of February 23, 2007, the following table reports these details for the main components of provisions for the back-end nuclear cycle, decommissioning of nuclear plants and last cores:

	Amounts in provisions at present value		Sensitivity to discount rate			
			2011		2010	
(in millions of Euros)	2011	2010	+0.25%	- 0.25 %	+ 0.25 %	- 0.25 %
Back-end nuclear cycle:						
- spent fuel management	9,143	8,852	(200)	213	(197)	210
- long-term radioactive waste management	6,722	6,508	(412)	471	(401)	457
Decommissioning and last cores:						
- decommissioning of nuclear power plants	11,366	11,031	(544)	576	(543)	577
- impairment of last cores	2,012	1,906	(81)	87	(81)	87
Total	**29,243**	**28,297**	**(1,237)**	**1,347**	**(1,222)**	**1,331**

30.2 EDF Energy's nuclear provisions

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

- the obligations are reported in liabilities in the form of provisions amounting to €8,753 million at December 31, 2011;
- in the assets, EDF reports receivables corresponding to the amounts payable under the restructuring agreements by the NLF, for non-contracted obligations or decommissioning obligations, and by the British Government for contracted obligations (or historic liabilities).

These receivables are discounted at the same real rate as the obligations they are intended to finance. They are included in "Financial assets" in the consolidated balance sheet (see note 37.3) at the amount of €7,209 million at December 31, 2011 (€6,613 million at December 31, 2010).

30.2.1 Regulatory and contractual framework

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

- the NLF agreed to fund, to the extent of its assets: (i) qualifying contingent and/or latent nuclear liabilities (including liabilities for management of spent fuel from the Sizewell B power station); and (ii) qualifying decommissioning costs for EDF Energy's existing nuclear power stations;

- the Secretary of State agreed to fund: (i) qualifying contingent and/or latent nuclear liabilities (including liabilities for the management of spent fuel from the Sizewell B power station) and qualifying decommissioning costs related to EDF Energy's existing nuclear power stations, to the extent that they exceed the assets of the NLF; and (ii) subject to a cap of £2,185 million (in December 2002 monetary values, adjusted accordingly), qualifying known existing liabilities for EDF Energy's spent fuel (including liabilities for management of spent fuel from plants other than Sizewell B loaded in reactors prior to January 15, 2005);

- the EDF Energy group is responsible for funding certain excluded or disqualified liabilities (mainly liabilities incurred in connection with unsafe or careless operation of the power plants). The EDF Energy group's obligations to the NLF and the Secretary of State are guaranteed by the assets of the principal members of British Energy group.

EDF Energy has also undertaken commitments to pay:

- annual decommissioning contributions for a period limited to the useful lives of the plants that had ceased operations at the date of the "restructuring agreements"; the corresponding provision amounts to €198 million at December 31, 2011;
- £150,000 (indexed to inflation) per tonne of fuel (expressed in terms of enriched uranium) loaded in the Sizewell B reactor after the date of the "restructuring agreements".

Furthermore, EDF Energy has entered into a separate contract with the Nuclear Decommissioning Authority (NDA) for management of spent fuel resulting from operation of power plants other than Sizewell B since January 15, 2005 including transportation, interim storage, fuel reprocessing and waste storage. EDF Energy bears no responsibility for this fuel once it is transferred to the processing site at Sellafield. The corresponding costs of £150,000 (indexed to inflation) per tonne of loaded uranium are included in inventories (see note 1.3.18.1).

30.2.2 Provisions for the back-end nuclear cycle

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

	12.31.2011		12.31.2010	
(in millions of Euros)	Costs based on year-end economic conditions	Amounts in provisions at present value	Costs based on year-end economic conditions	Amounts in provisions at present value
Spent fuel management	3,860	2,385	2,631	2,171
Long-term radioactive waste management	3,969	577	3,311	486
Back-end nuclear cycle	**7,829**	**2,962**	**5,942**	**2,657**

The change observed is mainly due to a reclassification in 2011 allocating the provision for decommissioning waste to provisions for back-end nuclear cycle, causing a €1,447 million increase in the amount of costs at year-end economic conditions.

30.2.3 EDF Energy's decommissioning provisions

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

	12.31.2011		12.31.2010	
(in millions of Euros)	Costs based on year-end economic conditions	Amounts in provisions at present value	Costs based on year-end economic conditions	Amounts in provisions at present value
Provisions for plant decommissioning	**12,213**	**4,239**	**12,567**	**3,951**

The amount of nuclear plant decommissioning costs at year-end economic conditions in 2011 includes the €(1,447) million impact of reclassification of the provisions for decommissioning waste as a component of provisions for back-end nuclear cycle.
The table above only concerns decommissioning obligations excluding the discounted value of decommissioning contributions payable to the NLF (€198 million, see note 30.2.1).

30.3 CENG's nuclear provisions

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

30.3.1 Provisions for the back-end nuclear cycle

In accordance with current regulations, spent fuel is not reprocessed but placed in temporary storage until the DOE takes charge of its final transportation and permanent storage in a national repository. CENG makes a quarterly contribution of approximately $1/MWh based on the quantities of electricity generated, and no provision is established for these obligations.

30.3.2 CENG's decommissioning provisions for nuclear plants

CENG is under an obligation to decommission its three nuclear power plants (5 nuclear generation units) when they cease operations, in accordance with NRC regulations as well as any relevant state regulations for site restoration (green-fielding requirements). In the US, all decommissioning activities need to be completed within 60 years following termination of plant operations.

Decommissioning provisions mainly comprise decontamination, dismantlement, disposal and site restoration activities, which further encompass such expenses as: internal and external personnel expenses; the cost of materials and equipment; transportation, disposal, and underground burial costs; energy costs; real property taxes and insurance costs, fees paid to the NRC for decontamination certificate procedures and monitoring; costs related to temporary on-site storage of spent nuclear fuel; and finally, site restoration and land rehabilitation expenses in compliance with appropriate regulations.

Estimated decommissioning costs are calculated individually for each site based on technical studies that are regularly updated. Following a study conducted during the second half of 2010, the provision for decommissioning was reduced by $50 million.

30.3.3 Funding of CENG's nuclear obligations

NRC-approved funding options provide for the establishment of external investment trust funds (by unit), which can only be used to fund such decommissioning obligations. These trust funds are currently invested in debt instruments and equities. They are reserved for the nuclear plant to which they belong.

CENG's Investment Committee lays down the general investment strategy, including the allocation between different types of assets. CENG periodically undertakes a comprehensive asset-liability management study, to further optimize and adjust the asset allocation, given strategic objectives, liability duration, long-term capital market conditions, and the magnitude of such projected obligations. The funds cannot be invested directly in companies that own nuclear power plants.

The NRC sets minimum funding assurance levels to provide for radiological decommissioning activities, and the NRC requires all plant owners to file a funding assurance report to the NRC on a biennial basis. If a shortfall is observed, the NRC may require additional financial guarantees in the form of cash, letters of credit or parent company guarantees. During the spring of 2011, CENG submitted its required biennial report, and the NRC subsequently determined that no shortfall was indicated, and furthermore, no additional funding assurance is required at this time.

These funding assets are treated as available-for-sale assets, and carried at fair value (stock market value).

30.4 Other subsidiaries' nuclear provisions

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

31 Provisions for decommissioning of non-nuclear facilities

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

The costs of decommissioning fossil-fired power plants are calculated using regularly updated studies based on estimated future costs, measured by reference to the charges recorded on past operations and the most recent estimates for plants still in operation.

The provision recorded at December 31, 2011 reflects the most recent known contractor quotes and commissioning of new generation assets.

For plants still in operation, an asset is recorded against the provision under the principles presented in note 1.3.13.1.

32 Provisions for employee benefits

32.1 EDF group

(in millions of Euros)	**12.31.2011**	**12.31.2010**
Provision for employee benefits - current portion	846	819
Provision for employee benefits - non-current portion	12,215	11,745
Provision for employee benefits	**13,061**	**12,564**

32.1.1 Breakdown of the change in the net liability

(in millions of Euros)	Obligations	Fund assets	Obligations net of fund assets	Unrecognized past service cost	Unrecognized actuarial gains and losses	Net obligations
Balance at 12.31.2010	**26,064**	**(11,451)**	**14,613**	**(136)**	**(2,086)**	**12,391**
Net expense for 2011	2,137	(597)	1,540	13	115	1,668
Change in unrecognized actuarial gains and losses	921	(161)	760	-	(760)	-
Employer's contributions to funds	-	(769)	(769)	-	-	(769)
Employees' contributions to funds	28	(28)	-	-	-	-
Benefits paid	(1,075)	623	(452)	-	-	(452)
Unvested past service cost	-	-	-	-	-	-
Translation adjustment	190	(158)	32	-	(42)	(10)
Changes in scope of consolidation	(13)	5	(8)	-	-	(8)
Other movements	15	(58)	(43)	1	26	(16)
Balance at 12.31.2011	**28,267**	**(12,594)**	**15,673**	**(122)**	**(2,747)**	**12,804**
including:						
Provision for employee benefits						13,061
Non-current financial assets						(257)

32.1.2 Post-employment and long-term employee benefit expenses

(in millions of Euros)	12.31.2011	12.31.2010
Current service cost	(686)	(714)
Interest expense (discount effect)	(1,337)	(1,538)
Expected return on fund assets	597	715
Past service cost	(25)	(25)
Amortization of unrecognized actuarial gains and losses – post-employment benefits	(115)	(115)
Change in actuarial gains and losses – long-term benefits	(100)	(150)
Effect of plan curtailment or settlement	(2)	3
Net charges related to post-employment benefits and long-term benefits	**(1,668)**	**(1,824)**
Including:		
- Operating expense	(928)	(965)
- Financial expense	(740)	(720)
- Net income of discontinued operations	-	(139)

32.1.3 Net liability by geographical area

(in millions of Euros)	France	United Kingdom	Italy	Other International	Other Activities	Total
Obligations at 12.31.2010	**20,170**	**5,160**	**51**	**380**	**303**	**26,064**
Net expense for 2011	1,629	444	5	50	9	**2,137**
Change in unrecognized actuarial gains and losses	544	362	-	14	1	**921**
Employer's contributions to funds	-	-	-	-	-	**-**
Employees' contributions to funds	-	28	-	-	-	**28**
Benefits paid	(889)	(150)	(3)	(28)	(5)	**(1,075)**
Unvested past service cost	-	-	-	-	-	**-**
Translation adjustment	-	185	-	5	-	**190**
Changes in scope of consolidation	-	-	(12)	-	(1)	**(13)**
Other movements	-	(2)	(4)	41	(20)	**15**
Obligations at 12.31.2011	**21,454**	**6,027**	**37**	**462**	**287**	**28,267**
Fair value of fund assets	(7,306)	(4,978)	-	(181)	(129)	**(12,594)**
Unrecognized actuarial gains and losses	(1,435)	(1,257)	-	(42)	(13)	**(2,747)**
Unrecognized past service cost	(117)	-	-	(3)	(2)	**(122)**
Net employee benefit liability at 12.31.2011	**12,596**	**(208)**	**37**	**236**	**143**	**12,804**
including:						
Provisions for employee benefits	12,596	49	37	236	143	**13,061**
Non-current financial assets	-	(257)	-	-	-	**(257)**

(in millions of Euros)	France	United Kingdom	Italy	Other International	Other Activities	Total
Obligations at 12.31.2010	**20,170**	**5,160**	**51**	**380**	**303**	**26,064**
Fair value of fund assets	(6,889)	(4,320)	-	(115)	(127)	**(11,451)**
Unrecognized actuarial gains and losses	(1,059)	(971)	-	(20)	(36)	**(2,086)**
Unrecognized past service cost	(130)	-	-	(5)	(1)	**(136)**
Net employee benefit liability at 12.31.2010	**12,092**	**(131)**	**51**	**240**	**139**	**12,391**
including:						
Provisions for employee benefits	12,092	42	51	240	139	**12,564**
Non-current financial assets	-	(173)	-	-	-	**(173)**

32.2 France

The "France" segment comprises EDF SA and ERDF; almost all of the employees of these companies benefit from IEG status including the special pension system and other IEG benefits, described in note 1.3.24.2.

32.2.1 Details of changes in the provision

(in millions of Euros)	Obligations	Fund assets	Obligations net of fund assets	Unrecognized past service cost	Unrecognized actuarial gains and losses	Provision
Balance at 12.31.2010	**20,170**	**(6,889)**	**13,281**	**(130)**	**(1,059)**	**12,092**
Net expense for 2011	1,629	(330)	1,299	13	86	1,398
Change in unrecognized actuarial gains and losses	544	(82)	462	-	(462)	-
Employer's contributions to funds	-	(459)	(459)	-	-	(459)
Employees' contributions to funds	-	-	-	-	-	-
Benefits paid	(889)	454	(435)	-	-	(435)
Unvested past service cost	-	-	-	-	-	-
Other movements	-	-	-	-	-	-
Balance at 12.31.2011	**21,454**	**(7,306)**	**14,148**	**(117)**	**(1,435)**	**12,596**

The experience adjustment for France represents an actuarial loss of €165 million.

32.2.2 Post-employment and long-term employee benefit expenses

(in millions of Euros)	12.31.2011	12.31.2010
Current service cost	(501)	(488)
Interest expense (discount effect)	(1,030)	(984)
Expected return on fund assets	330	339
Past service cost	(13)	(16)
Amortization of unrecognized actuarial gains and losses – post-employment benefits	(86)	(38)
Change in actuarial gains and losses – long-term benefits	(98)	(148)
Effect of plan curtailment or settlement	-	(5)
Net post-employment and other long-term employee benefit expenses	**(1,398)**	**(1,340)**
including:		
Operating expense	(698)	(695)
Financial expense	(700)	(645)

32.2.3 Provisions for employee benefits by nature

- At December 31, 2011:

(in millions of Euros)	Obligations	Fund assets	Unrecognized past service cost	Unrecognized actuarial gains and losses	Provision in the Balance sheet
Provisions for post-employment benefits at 12.31.2011	**20,362**	**(7,306)**	**(117)**	**(1,435)**	**11,504**
Comprising:					
Pensions	16,138	(6,762)	-	273	9,649
Benefits in kind (electricity/gas)	2,912	-	-	(1,633)	1,279
Retirement gratuities	744	(531)	(114)	(95)	4
Other	568	(13)	(3)	20	572
Provisions for long-term employee benefits at 12.31.2011	**1,092**	**-**	**-**	**-**	**1,092**
Comprising:					
Annuities following work-related accident and illness, and invalidity	917	-	-	-	917
Long service awards	141	-	-	-	141
Other	34	-	-	-	34
Provisions for employee benefits at 12.31.2011	**21,454**	**(7,306)**	**(117)**	**(1,435)**	**12,596**

The increase in 2011 in obligations related to the electricity/gas benefit principally results from the fact that the employer has borne the rise in electricity taxes (including the CSPE and local taxes on electricity). This effect has been considered as a change in assumptions, and therefore leads to an increase in unrecognized actuarial gains and losses.

- At December 31, 2010:

(in millions of Euros)	Obligations	Fund assets	Unrecognized past service cost	Unrecognized actuarial gains and losses	Provision in the Balance sheet
Provisions for post-employment benefits at 12.31.2010	**19,116**	**(6,889)**	**(130)**	**(1,059)**	**11,038**
Comprising:					
Pensions	15,745	(6,344)	-	(45)	9,356
Benefits in kind (electricity/gas)	2,093	-	-	(969)	1,124
Retirement gratuities	732	(532)	(126)	(66)	8
Other	546	(13)	(4)	21	550
Provisions for long-term employee benefits at 12.31.2010	**1,054**	-	-	-	**1,054**
Comprising:					
Annuities following industrial accident, work-related illness or invalidity;	876	-	-	-	876
Long service awards	142	-	-	-	142
Other	36	-	-	-	36
Provisions for employee benefits at 12.31.2010	**20,170**	**(6,889)**	**(130)**	**(1,059)**	**12,092**

32.2.4 Fund assets

For France, these assets amount to €7,306 million at December 31, 2011 (€6,889 million at December 31, 2010) and concern retirement gratuities (with target coverage of 100%) and the specific benefits of the special pension system.

They consist of insurance contracts.

Investments under these contracts break down as follows:

(in millions of Euros)	12.31.2011	12.31.2010
Fund assets	**7,306**	**6,889**
Assets funding special pension benefits	***6,762***	***6,344***
(%)		
Equities	26%	30%
Bonds and monetary instruments	74%	70%
Assets funding retirement gratuities	***531***	***532***
(%)		
Equities	39%	47%
Bonds and monetary instruments	61%	53%
Other fund assets	***13***	***13***

32.2.5 Actuarial assumptions

(%)	12.31.2011	12.31.2010
Discount rate	5.00%	5.00%
Expected return on fund assets	4.70%	4.80%
Wage increase rate	2.00%	2.00%

In France, the discount rate for long-term obligations to employees is determined based on the return on a government bond of comparable duration - the 2032 French Treasury bond, which has a duration of 14 years consistent with the duration of employee benefit obligations - plus a spread calculated on the leading nonfinancial companies, also over a comparable duration.

The Group kept the same discount rate of 5% for 2011 as a result of this method.

32.2.6 Sensitivity analysis

(in %)	12.31.2011	12.31.2010
Impact of a 25bp increase or decrease in the discount rate		
- on the amount of the obligation	-3.4% / +3.6%	-3.3% / +3.5%
- on the past service cost for year Y+1	-5.3% / +5.7%	-5.0% / +5.4%
Impact of a 25bp increase or decrease in the expected return on fund assets		
- on the expected expense for year Y+1	-1.4% / +1.4%	-1.3%/+1.3%

32.3 United Kingdom

EDF Energy sponsors three defined benefit pension schemes:

- The EDF Energy Pension Scheme (“EEPS”) which was established in March 2004 and includes a number of legacy pension schemes from London Electricity and Seeboard. Membership of EEPS is open to all employees other than those in Nuclear Generation;
- The British Energy Generation Group (“BEGG”) of the Electricity Supply Pension Scheme (“ESPS”), of which the majority of members are employees in Nuclear Generation. BEGG is open only to employees in Nuclear Generation; and
- The EDF Energy Generation and Supply Group (“EEGS”) of the ESPS which was established in December 2010 for the employees remaining with EDF Energy following the transfer of the former Group to UK Power Networks as part of the sale of Networks. EEGS is closed to new members;

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

32.3.1 Details of the change in the net liability

(in millions of Euros)	Obligations	Fund assets	Obligations net of fund assets	Unrecognized past service cost	Unrecognized actuarial gains and losses	Net liability
Balance at 12.31.2010	**5,160**	**(4,320)**	**840**	**-**	**(971)**	**(131)**
Net expense for 2011	444	(255)	189	-	29	218
Change in unrecognized actuarial gains and losses	362	(86)	276	-	(276)	-
Employer's contributions to funds	-	(286)	(286)	-	-	(286)
Employees' contributions to funds	28	(28)	-	-	-	-
Benefits paid	(150)	150	-	-	-	-
Unvested past service cost	-	-	-	-	-	-
Translation adjustment	185	(153)	32	-	(39)	(7)
Changes in scope of consolidation	-	-	-	-	-	-
Other movements	(2)	-	(2)	-	-	(2)
Balance at 12.31.2011	**6,027**	**(4,978)**	**1,049**	**-**	**(1,257)**	**(208)**
comprising:						
Provision for employee benefits						49
Non-current financial assets						(257)

32.3.2 Post-employment benefit expenses and long-term employee benefit expenses

(in millions of Euros)	12.31.2011	12.31.2010
Current service cost	(160)	(178)
Interest expense (discount effect)	(281)	(426)
Expected return on fund assets	255	365
Amortization of unrecognized actuarial gains and losses – post-employment benefits	(29)	(76)
Effect of plan curtailment or settlement	(3)	(1)
Net post-employment and other long-term employee benefit expenses	**(218)**	**(316)**
including:		
Operating expense	(192)	(255)
Financial expense	(26)	(61)

32.3.3 Fund assets

Pension obligations in the United Kingdom are partly covered by external funds with a present value of €4,978 million at December 31, 2011 (€4,320 million at December 31, 2010). These funds break down as follows:

	12.31.2011	12.31.2010
Fund assets covering pension obligations	4,978	4,320
Comprising:		
Real estate assets	6%	6%
Equities	34%	38%
Bonds and monetary instruments	52%	47%
Other	8%	9%

32.3.4 Actuarial assumptions

(%)	12.31.2011	12.31.2010
Discount rate	4.70%	5.50%
Expected return on pension fund assets	5.10%	6.00%
Wage increase rate	4.70%	5.10%

32.3.5 Sensitivity analyses

(%)	12.31.2011	12.31.2010
Impact of a 25bp increase or decrease in the discount rate		
- on the amount of the obligations	-4.8% / +5.0%	-4.7% / + 5.0%
- on the past service cost for year Y+1	-7.3% / +7.3%	-6.3% / +7.0%
Impact of a 25bp increase or decrease in the expected return on fund assets		
- on the expected expense for year Y+1	-4.8% / +4.8%	-4.7% / + 5.3%

33 Other provisions

Details of changes in other provisions are as follows:

(in millions of Euros)	12.31.2010	Increases	Decreases		Changes in scope	Other changes	12.31.2011
			Utilizations	Reversals			
Provisions for contingencies related to investments	**944**	6	(713)	(32)	(13)	2	**194**
Provisions for tax liabilities	**289**	195	(217)	-	(4)	3	**266**
Provisions for litigation	**506**	163	(49)	(59)	(6)	8	**563**
Provisions for onerous contracts	**1,025**	128	(399)	(1)	-	15	**768**
Other provisions	**1,443**	1,159	(1,363)	(82)	(33)	29	**1,153**
Other provisions	**4,207**	**1,651**	**(2,741)**	**(174)**	**(56)**	**57**	**2,944**

33.1 Provisions for contingencies related to investments

The decline in provisions for contingencies related to investments mainly results from utilization of the provision for the Italy segment in 2011 to absorb impairment on goodwill and other assets booked by the Group in Italy over the period for €668 million. This provision amounted to €750 million at December 31, 2010.

33.2 Provisions for litigation

Provisions for litigation include a provision relating to a dispute with social security bodies.

33.3 Provisions for onerous contracts

Provisions for onerous contracts include the fair value of:

- British Energy sales contracts, amounting to €130 million at December 31, 2011 (€402 million at December 31, 2010);
- CENG sales contracts amounting to €491 million at December 31, 2011 (€512 million at December 31, 2010).

33.4 Other provisions

Other provisions include an amount of €466 million in provisions for greenhouse gas emission quotas and renewable energy certificates at December 31, 2011.

34 Special French public electricity distribution concession liabilities for existing assets and assets to be replaced

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

(in millions of Euros)	12.31.2011	12.31.2010
Value in kind of assets	40,307	39,001
Unamortized financing by the operator	(19,383)	(18,683)
Rights in existing assets - net value	**20,924**	**20,318**
Amortization in existing by the grantor	9,923	9,404
Provisions for renewal	10,922	11,439
Rights in assets to be replaced	**20,845**	**20,843**
Special French public electricity distribution concession liabilities for existing assets and assets to be replaced	**41,769**	**41,161**

35 Trade payables

(in millions of Euros)	12.31.2011	12.31.2010
Trade payables - excluding EDF Trading	9,358	9,856
Trade payables - EDF Trading	4,323	2,949
Trade payables	**13,681**	**12,805**

36 Other liabilities

Details of other liabilities are as follows:

(in millions of Euros)	12.31.2011	12.31.2010
Advances and progress payments received	6,696	5,896
Liabilities related to property, plant and equipment	2,404	2,167
Tax and social charges	7,102	6,881
Deferred income	5,935	5,848
Other	2,752	2,847
Other liabilities	**24,889**	**23,639**
Non-current portion	4,989	4,965
Current portion	19,900	18,674

36.1 Advances and progress payments received

Advances and progress payments received include monthly standing order payments by EDF SA's residential and business customers amounting to €5,239 million (€4,736 million at December 31, 2010). The increase over 2011 is explained by the growing number of customers that opt to pay their bills this way, combined with a weather effect (advance invoices are based on consumption levels observed the previous year, and winter 2010 was particularly harsh in France).

36.2 Tax and social charges

At December 31, 2011 tax and social charges mainly include an amount of €579 million for the CSPE income to be collected by EDF SA on energy delivered but not yet billed (€344 million at December 31, 2010).

36.3 Deferred income

EDF's deferred income at December 31, 2011 comprises €2,814 million (€2,693 million at December 31, 2010) of partner advances made under the nuclear plant financing plans. This includes an advance of €513 million paid by the Enel group under the industrial partnership agreement for the Flamanville EPR. This advance is subject to specific contractual conditions that allow in certain circumstances Enel to withdraw its financial and operational contribution from the project, in which case the EDF group would be obliged to repay the advance.

Deferred income also includes the €1.7 billion advance paid to EDF in 2010 under the agreement with the Exeltium consortium.

FINANCIAL ASSETS AND LIABILITIES

37 Current and non-current financial assets

37.1 Breakdown between current and non-current financial assets

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

(in millions of Euros)	12.31.2011 Current	12.31.2011 Non-current	12.31.2011 Total	12.31.2010 Current	12.31.2010 Non-current	12.31.2010 Total
Financial assets carried at fair value with changes in fair value included in income	4,482	12	**4,494**	4,534	13	**4,547**
Available-for-sale financial assets	10,413	13,915	**24,328**	9,748	15,287	**25,035**
Held-to-maturity investments	3	16	**19**	2	23	**25**
Positive fair value of hedging derivatives	914	1,862	**2,776**	1,401	1,180	**2,581**
Loans and financial receivables	1,168	8,712	**9,880**	1,103	8,418	**9,521**
Financial assets(1)	**16,980**	**24,517**	**41,497**	**16,788**	**24,921**	**41,709**

(1) Including impairment of €1,141 million at 31 December, 2011 (€726 million at 31 December, 2010).

37.2 Details of financial assets

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

(in millions of Euros)	12.31.2011	12.31.2010
Derivatives - positive fair value	4,478	4,530
Fair value of derivatives held for trading	4	5
Financial assets carried at fair value optionally in income	12	12
Financial assets carried at fair value with changes in fair value included in income	**4,494**	**4,547**

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

37.2.2 Available-for-sale financial assets

(in millions of Euros)	12.31.2011 Equities (1)	12.31.2011 Debt securities	12.31.2011 Total	12.31.2010 Equities (1)	12.31.2010 Debt securities	12.31.2010 Total
Dedicated assets of EDF (note 48)	5,801	7,510	**13,311**	6,820	6,685	**13,505**
Liquid assets	2,782	6,242	**9,024**	4,930	4,355	**9,285**
Other	1,918	75	**1,993**	2,172	73	**2,245**
Available-for-sale financial assets	**10,501**	**13,827**	**24,328**	**13,922**	**11,113**	**25,035**

(1) Equities and investment funds.

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

(in millions of Euros)	12.31.2011 Gross changes in fair value recorded in equity (1)	12.31.2011 Gross changes in fair value transferred to income (2)	12.31.2010 Gross changes in fair value recorded in equity (1)	12.31.2010 Gross changes in fair value transferred to income (2)
Dedicated assets	(448)	(77)	886	(4)
Liquid assets	27	35	(29)	(40)
Other securities	(319)	(38)	(39)	(87)
Available-for- sale financial assets	**(740)**	**(80)**	**818**	**(131)**

(1) + / ( ): increase / (decrease) in equity (EDF share)

(2) + / ( ): increase /(decrease) in income

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

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

The fair value of Veolia Environnement shares (based on the stock market value at December 31, 2011) declined by more than 50% compared to historical value during 2011, and a €(340) million loss was therefore recognized in financial result.

Gross changes in fair value included in equity in 2010 (EDF's share) principally concern EDF: €850 million, including €886 million for dedicated assets.

No significant impairment was recorded in 2010.

37.2.2.1 Liquid assets

Liquid assets are financial assets consisting of funds or interest rate instruments with initial maturity of over three months that are readily convertible into cash, and are managed according to a liquidity-oriented policy.

EDF's monetary investment funds, included in liquid assets, amount to €2,187 million at December 31, 2011 (€4,842 million at December 31, 2010).

37.2.2.2 Other securities

At December 31, 2011, other securities mainly include:

- At CENG, €555 million of available-for-sale assets related to decommissioning trust funds (reserved for financing of plant decommissioning).
- At EDF Inc., shares in CEG (€424 million).
- At EDF, shares in AREVA (€164 million) and Veolia Environnement (€174 million).

37.3 Fair value of financial assets recorded at amortized cost

(in millions of Euros)	12.31.2011 Fair value	12.31.2011 Net book value	12.31.2010 Fair value	12.31.2010 Net book value
Held-to-maturity investments	19	19	25	25
Loans and financial receivables - amounts receivable from the NLF	7,209	7,209	6,613	6,613
Loans and financial receivables - other	2,824	2,671	2,912	2,908
Financial assets recorded at amortized cost	**10,052**	**9,899**	**9,550**	**9,546**

Loans and receivables include amounts representing reimbursements receivable from the NLF and the British government for coverage of long-term nuclear obligations, totaling €7,209 million at December 31, 2011 (€6,613 million at December 31, 2010), discounted at the same rate as the provisions they finance.

37.4 Change in financial assets other than derivatives

The variation in financial assets is as follows:

37.4.1 At December 31, 2011

(in millions of Euros)	12.31.2010	Net Increases	Changes in fair value	Changes in scope	Other	12.31.2011
Available-for-sale financial assets	**25,035**	(320)	(517)	75	55	**24,328**
Held-to-maturity investments	**25**	(3)	-	-	(3)	**19**
Loans and financial receivables	**9,521**	(380)	-	49	690	**9,880**

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

37.4.2 At December 31, 2010

(in millions of Euros)	12.31.2009	Net Increases	Changes in fair value	Changes in scope	Other	12.31.2010
Available-for-sale financial assets	**20,805**	6,083	1,018	(2,747)	(124)	**25,035**
Held-to-maturity investments	**524**	(13)	-	(487)	1	**25**
Loans and financial receivables	**7,848**	(11)	-	1,322	362	**9,521**

Other changes in loans and financial receivables reflect the change in the receivable representing reimbursements due from the NLF and the British government for coverage of long-term nuclear obligations, totaling €214 million.

38 Cash and cash equivalents

Cash and cash equivalents comprise cash in hand and at bank and investments in money market instruments. Cash and cash equivalents as stated in the cash flow statements include the following amounts recorded in the balance sheet:

(in millions of Euros)	12.31.2011	12.31.2010
Cash	2,018	1,838
Cash equivalents(1)	3,502	2,804
Financial current accounts	223	187
Cash and cash equivalents	**5,743**	**4,829**

(1) Items stated at fair value amount to €3,246 million at December 31, 2011.

39 Current and non-current financial liabilities

39.1 Breakdown between current and non-current financial liabilities

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

(in millions of Euros)	12.31.2011 Non-current	12.31.2011 Current	12.31.2011 Total	12.31.2010 Non-current	12.31.2010 Current	12.31.2010 Total
Loans and other financial liabilities	41,989	8,045	**50,034**	39,993	7,784	**47,777**
Negative fair value of derivative held for trading	-	3,433	**3,433**	-	4,002	**4,002**
Negative fair value of hedging derivatives	699	1,311	**2,010**	653	980	**1,633**
Financial liabilities	**42,688**	**12,789**	**55,477**	**40,646**	**12,766**	**53,412**

39.2 Loans and other financial liabilities

39.2.1 Changes in loans and other financial liabilities

(in millions of Euros)	Bonds	Loans from financial institutions	Other financial liabilities	Loans related to finance leased assets	Accrued interests	Total
Balances at 12.31.2009	**40,072**	**6,450**	**5,892**	**246**	**1,208**	**53,868**
Increases	5,736	2,057	971	-	137	**8,901**
Decreases	(1,924)	(2,144)	(841)	(42)	(16)	**(4,967)**
Translation adjustments	646	67	205	-	2	**920**
Changes in scope of consolidation	(9,489)	(753)	(940)	(13)	(276)	**(11,471)**
Other changes	458	(273)	199	182	(40)	**526**
Balances at 12.31.2010	**35,499**	**5,404**	**5,486**	**373**	**1,015**	**47,777**
Increases	1,810	3,275	663	-	81	**5,829**
Decreases	(1,023)	(3,228)	(302)	(16)	(7)	**(4,576)**
Translation adjustments	366	34	145	-	1	**546**
Changes in scope of consolidation	(11)	(29)	(334)	(4)	-	**(378)**
Other changes	883	25	(91)	18	1	**836**
Balances at 12.31.2011	**37,524**	**5,481**	**5,567**	**371**	**1,091**	**50,034**

Other changes in loans and other financial liabilities reflect changes in fair value amounting to €826 million at December 31, 2011 (€480 million at December 31, 2010).

On October 17, 2011 EDF received the funds from a 30-year £1.25 billion sterling bond issue with annual coupon of 5.50%.

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

(in millions of Euros)	12.31.2011	12.31.2010
EDF and other affiliated subsidiaries (1)	35,407	33,656
EDF Energy (2)	5,965	5,312
EDF Energies Nouvelles	4,572	4,059
Edison (3)	1,861	2,104
Other	2,229	2,646
Gross indebtedness	**50,034**	**47,777**

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

At December 31, 2011, none of these entities was in default on any borrowing.

The Group's principal borrowings at December 31, 2011 are as follows:

(in millions)	Entity	Issue [1]	Maturity	Issuance amount	Currency	Rate	
Euro MTN	EDF	11/2008	01/2013	2,000	EUR	5.6%	(2)
Bond	EDF	01/2009	01/2014	1,250	USD	5.5%	
Euro MTN	EDF	07/2009	07/2014	3,269	EUR	4.5%	
Euro MTN	EDF	01/2009	01/2015	2,000	EUR	5.1%	(2)
Euro MTN	EDF	10/2001	10/2016	1,100	EUR	5.5%	
Euro MTN	EDF	02/2008	02/2018	1,500	EUR	5.0%	
Bond	EDF	01/2009	01/2019	2,000	USD	6.5%	
Bond	EDF	01/2010	01/2020	1,400	USD	4.6%	
Euro MTN	EDF	05/2008	05/2020	1,200	EUR	5.4%	
Euro MTN	EDF	01/2009	01/2021	2,000	EUR	6.3%	
Euro MTN	EDF	09/2009	09/2024	2,500	EUR	4.6%	(2)
Euro MTN	EDF	11/2010	11/2025	750	EUR	4.0%	
Euro MTN	EDF	04/2010	04/2030	1,500	EUR	4.6%	(2)
Euro MTN	EDF	02/2003	02/2033	850	EUR	5.6%	
Euro MTN	EDF	06/2009	06/2034	1,500	GBP	6.1%	
Bond	EDF	01/2009	01/2039	1,750	USD	7.0%	
Euro MTN	EDF	11/2010	11/2040	750	EUR	4.5%	
Euro MTN	EDF	10/2011	10/2041	1,250	GBP	5.5%	
Euro MTN	EDF	09/2010	09/2050	1,000	GBP	5.1%	(2)

(1) Date funds were received.
(2) These bonds were partly redeemed in 2010 and 2011.

39.2.2 Maturity of loans and other financial liabilities

(in millions of Euros)	Bonds	Loans from financial institutions	Other financial liabilities	Loans related to finance leased assets	Accrued interest	Total
Less than one year	790	1,207	4,920	37	1,091	**8,045**
From one to five years	12,760	1,964	520	101	-	**15,345**
More than five years	23,974	2,310	127	233	-	**26,644**
Loans and financial liabilities at 12.31.2011	**37,524**	**5,481**	**5,567**	**371**	**1,091**	**50,034**

39.2.3 Breakdown of loans by currency

	12.31.2011			12.31.2010		
(in millions of Euros)	Initial debt structure	Impact of hedging derivatives [1]	Debt structure after hedging derivatives	Initial debt structure	Impact of hedging derivatives [1]	Debt structure after hedging derivatives
Euro (EUR)	29,479	(3,129)	26,350	28,510	(3,089)	25,421
American dollar (USD)	8,890	(2,401)	6,489	9,257	(4,568)	4,689
Pound sterling (GBP)	6,822	7,559	14,381	5,081	8,678	13,759
Other	4,843	(2,029)	2,814	4,929	(1,021)	3,908
Loans and financial liabilities	**50,034**	**-**	**50,034**	**47,777**	**-**	**47,777**

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

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

	12.31.2011			12.31.2010		
(in millions of Euros)	Initial debt structure	Impact of hedging derivatives	Debt structure after hedging derivatives	Initial debt structure	Impact of hedging derivatives	Debt structure after hedging derivatives
Fixed rates	42,614	(2,630)	39,984	41,150	(49)	41,101
Floating rates	7,420	2,630	10,050	6,627	49	6,676
Loans and financial liabilities	**50,034**	-	**50,034**	**47,777**	-	**47,777**

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

39.2.5 Credit lines

At December 31, 2011, the Group has credit lines with various banks totaling €10,179 million (€11,085 million at December 31, 2010).

	12.31.2011				12.31.2010
		Maturity			
(in millions of Euros)	Total	< 1 year	1 - 5 years	> 5 years	Total
Confirmed credit lines	**10,179**	3,610	6,562	7	**11,085**

The decrease in credit lines observed in 2011 partly relates to EDF Energies Nouvelles where credit lines with the EDF group have replaced external credit lines, and partly to larger drawings on credit lines by EDF SA and Edison in 2011.

39.2.6 Early repayment clauses

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

No early repayment took place in 2011 as a result of any Group entity's failure to comply with contractual clauses concerning loans.

39.2.7 Fair value of loans and other financial liabilities

	12.31.2011		12.31.2010	
(in millions of Euros)	Fair value	Net book value	Fair value	Net book value
Loans and financial liabilities	**53,196**	**50,034**	**52,868**	**47,777**

39.3 Net indebtedness

Net indebtedness is not defined in the accounting standards and is not directly presented in the consolidated balance sheet. It comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets consisting of funds or securities with initial maturity of over three months that are readily convertible into cash regardless of their maturity and are managed according to a liquidity-oriented policy.
Since 2010 the net indebtedness has included loans by the Group to RTE, which is accounted for under the equity method from December 31, 2010.

39.3.1 Net indebtedness by nature

(in millions of Euros)	Notes	12.31.2011	12.31.2010
Loans and other liabilities	**39.2.1**	50,034	47,777
Derivatives used to hedge liabilities		(834)	49
Cash and cash equivalents	**38**	(5,743)	(4,829)
Liquid assets (1)	**37.2**	(9,024)	(9,285)
Loan to RTE EDF Transport		(1,400)	(1,914)
Net indebtedness of assets held for sale		252	2,591
Net indebtedness		**33,285**	**34,389**

(1) Available-for-sale financial assets: €9,024 million at December 31, 2011 (€9,285 million at December, 31, 2010).

The net financial indebtedness of assets held for sale in 2011 is attributable to Edipower (a subsidiary of the Edison subgroup).

The net financial indebtedness of assets held for sale in 2010 is attributable to EnBW.

40 Fair value of financial instruments

The valuation methods used by level are as follows:

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

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

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

41 Management of financial risks

As an operator in the energy sector worldwide, the EDF group is exposed to risks related to interest rates, exchange rates and fluctuations in commodity prices. The Group uses derivatives in various hedging strategies to eliminate or limit these financial risks, but not for speculative purposes.

To that end, the Group has set up a dedicated body responsible for defining the risk management policy and its governing principles, and supervising their correct application.

EDF entities and Group subsidiaries, particularly EDF Trading, EDF Energy and Edison have adapted these principles as appropriate for management of the risks inherent to their business.

Risks related to exchange rate, interest rate and commodity price fluctuations create volatility affecting Group results, equity and cash flows.

The main derivatives used are forward exchange contracts, currency options and currency swaps, interest rate swaps, cross currency swaps and commodity futures, forwards and swaps.

The equity risk lies essentially in the portfolio to cover nuclear obligations, and to a lesser degree in long-term investments for EDF's cash management.

On the energy markets, the Group enters into trading operations on the wholesale electricity, CO_2 and fossil fuel markets, mainly through its subsidiary EDF Trading. EDF Trading's spot and forward transactions mostly involve instruments such as forward contracts (with or without physical delivery), swaps and options.
EDF Trading is responsible for controlling its own exposure to energy market risks, and its commitments on the markets are also managed at Group level through a "Value at risk" (VaR) limit with a stop-loss limit (see section 1.6.2 of the Management Report).

The credit risk is associated with the risk of default on contractual obligations by counterparties. The Group has set up a counterparty risk management policy based on the following principles:

- close monitoring of the Group's counterparties (a daily report on alerts and specific conservative measures for certain counterparties);
- a methodology to assign exposure limits for each counterparty, related to financial and energy markets;
- monthly consolidation of exposure to counterparty risk on financial and energy market activities and quarterly consolidation across all activities;
- introduction of a loss limit at Group level for each counterparty and each entity, and regular control of compliance with those limits. When they are exceeded, the Corporate Credit Committee is contacted to decide on the corrective action to be applied, or authorize an exception.

Regarding the risk of customer default, another component of the counterparty risk, a statement of receivables not yet due and overdue is shown in note 26.

In the special case of EDF Trading, credit risk is partly covered by bilateral margin agreements and letters of credit.

A description of the types of financial risk and energy market risks and the Group's management and control framework for those risks can be found in section 1.6 of the Management Report.

The sensitivity analysis required by IFRS 7 is contained in the Management Report:
- Foreign exchange risk: section 1.6.1.3;
- Interest rate risk on financing issued and financial assets: section 1.6.1.4;
- Equity risk on financial assets: section 1.6.1.5.

The principal information on financial assets and liabilities are described by theme in the following notes and sections:
- Liquidity risks:
  - Maturity of loans and other financial liabilities: note 39.2.2 to the financial statements;
  - Credit lines: note 39.2.5 to the financial statements;
  - Early repayment clauses for borrowings: note 39.2.6 to the financial statements;
  - Off balance sheet commitments: note 44 to the financial statements.

- Foreign exchange risks:
  - Breakdown of loans by interest rate and currency: notes 39.2.3 and 39.2.4 to the financial statements.

- Equity risks (Management Report – section 1.6.1.5):
  - Coverage of nuclear obligations: note 44.1.1.4 and 30.1.5 to the financial statements,
  - Coverage of social obligations: note 32.2.4 and 32.3.3 to the financial statements,
  - Long-term cash management,
  - Direct investments;

- Interest rate risks:
  - Discount rate for nuclear provisions: calculation method and sensitivity: note 30.1.5.1 to the financial statements,
  - Discount rate used for employee benefits: notes 32.2.5 and 32.3.4 to the financial statements,
  - Breakdown of loans by interest rate and currency: notes 39.2.3 and 39.2.4 to the financial statements.

- Balance sheet treatment of financial and market risks:
  - Derivatives and hedge accounting: note 42 to the financial statements, with direct correspondence to the statement of changes in equity,
  - Derivatives not classified as hedges: note 43 to the financial statements.

42 Derivatives and hedge accounting

Hedge accounting is applied in compliance with IAS 39, and concerns interest rate derivatives used to hedge long-term indebtedness, currency derivatives used to hedge net foreign investments and debts in foreign currencies, and currency and commodity derivatives used to hedge future cash flows.

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

(in millions of Euros)	Notes	12.31.2011	12.31.2010
Positive fair value of hedging derivatives	**37.1**	2,776	2,581
Negative fair value of hedging derivatives	**39.1**	(2,010)	(1,633)
Fair value of hedging derivatives		**766**	**948**
Including interest rate hedging derivatives	**42.4.1**	337	(192)
Including foreign currency hedges	**42.4.2**	679	797
Including commodity-related cash flow hedges	**42.4.3**	(231)	365
Including commodity-related fair value hedges	**42.5**	(19)	(22)

42.1 Fair value hedges

The EDF group hedges the exposure to changes in the fair value of fixed-rate debts. The derivatives used for this hedging are fixed/floating interest rate swaps and cross currency swaps, with changes in fair value recorded in the income statement. Fair value hedges also include currency hedging instruments on certain firm purchase commitments.

At December 31, 2011, the ineffective portion of fair value hedges represents a gain of €4 million (gain of €2 million at December 31, 2010), included in the financial result.

42.2 Cash flow hedges

The EDF group uses cash flow hedging principally for the following purposes:
- to hedge its floating-rate debt, using interest-rate swaps (floating/fixed rate);
- to hedge the exchange rate risk related to debts contracted in foreign currencies, using cross currency swaps;
- to hedge future cash flows related to expected sales and purchases of electricity, gas, and coal, using futures, forwards and swaps.

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

At December 31, 2011, the ineffective portion of cash flow hedges represents a loss of €9 million (loss of €3 million at December 31, 2010).

42.3 Hedges of net investment in foreign entities

Hedging of net foreign investment is used for protection against exposure to the exchange rate risk related to net investments in the Group's foreign entities.

This risk is hedged at Group level either by contracting debts for investments in the same currency, or through the markets, in which case the Group uses currency swaps and forward exchange contracts.

42.4 Impact of hedging derivatives on equity

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

(in millions of Euros)	12.31.2011 Gross changes in fair value recorded in equity (1)	12.31.2011 Gross changes in fair value transferred to income - Recycling (2)	12.31.2011 Gross changes in fair value transferred to income - Ineffectiveness	12.31.2010 Gross changes in fair value recorded in equity (1)	12.31.2010 Gross changes in fair value transferred to income - Recycling (2)	12.31.2010 Gross changes in fair value transferred to income - Ineffectiveness
Interest rate hedging	(156)	(1)	(9)	(50)	-	6
Exchange rate hedging	254	317	6	934	661	(7)
Net foreign investment hedging (3)	(508)	-	-	(911)	514	-
Commodity hedging	(1,270)	(693)	-	68	(1,471)	2
Hedging derivatives	**(1,680)**	**(377)**	**(3)**	**41**	**(296)**	**1**

(1) + / ( ): increase / (decrease) in equity (EDF share)

(2) + / ( ): increase / (decrease) in income

(3) Gross changes in the fair value of net foreign investment hedges transferred to income in 2010 related to the sale of the network activities in the United Kingdom.

42.4.1 Interest rate hedging derivatives

Interest rate hedging derivatives break down as follows:

	Notional at 12.31.2011				Notional at 12.31.2010	Fair value	
(in millions of Euros)	< 1 year	1 to 5 years	> 5 years	Total	Total	12.31.2011	12.31.2010
Purchases of CAP contracts	20	70	8	**98**	98	-	-
Purchases of options	50	70	-	**120**	170	(1)	(1)
Interest rate transactions	**70**	**140**	**8**	**218**	**268**	**(1)**	**(1)**
Fixed rate payer / floating rate receiver	803	1,768	1,262	**3,833**	3,848	(304)	(158)
Floating rate payer / fixed rate receiver	-	1,561	4,430	**5,991**	3,284	705	(18)
Variable / variable	1	1,499	20	**1,520**	2,064	16	22
Fixed / Fixed	506	4,545	5,090	**10,141**	10,286	(79)	(37)
Interest rate swaps	**1,310**	**9,373**	**10,802**	**21,485**	**19,482**	**338**	**(191)**
Interest rate hedging derivatives	**1,380**	**9,513**	**10,810**	**21,703**	**19,750**	**337**	**(192)**

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

The notional value of cross-currency swaps is included both in this note and the note on Exchange rate hedging derivatives (42.4.2).

42.4.2 Exchange rate hedging derivatives

Exchange rate hedging derivatives break down as follows:

- At December 31, 2011

(in millions of Euros)	Notional amount to be received at 12.31.2011				Notional amount to be given at 12.31.2011				Fair value
	< 1 year	**1 to 5 years**	**> 5 years**	**Total**	**< 1 year**	**1 to 5 years**	**> 5 years**	**Total**	**12.31.2011**
Forward exchange transactions	4,704	1,755	-	**6,459**	4,656	1,744	-	**6,400**	**75**
Swaps	7,253	7,861	5,254	**20,368**	7,232	7,326	5,223	**19,781**	**600**
Options	90	-	-	**90**	93	-	-	**93**	**4**
Foreign currency hedges	**12,047**	**9,616**	**5,254**	**26,917**	**11,981**	**9,070**	**5,223**	**26,274**	**679**

- At December 31, 2010

(in millions of Euros)	Notional amount to be received at 12.31.2010				Notional amount to be given at 12.31.2010				Fair value
	< 1 year	**1 to 5 years**	**> 5 years**	**Total**	**< 1 year**	**1 to 5 years**	**> 5 years**	**Total**	**12.31.2010**
Forward exchange transactions	2,453	1,566	23	**4,042**	2,543	1,560	23	**4,126**	**68**
Swaps	13,220	7,762	6,048	**27,030**	12,450	7,304	5,902	**25,656**	**712**
Options	4,877	-	-	**4,877**	4,845	-	-	**4,845**	**17**
Foreign currency hedges	**20,550**	**9,328**	**6,071**	**35,949**	**19,838**	**8,864**	**5,925**	**34,627**	**797**

The notional value of cross-currency swaps shown in this note is also included in the note on interest rate hedging derivatives (note 42.4.1).

42.4.3 Commodity-related cash flow hedges

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

(in millions of Euros)	**12.31.2011**	**12.31.2010**
Electricity hedging contracts	(489)	(389)
Gas hedging contracts	(62)	298
Coal hedging contracts	(591)	118
Oil product hedging contracts	42	72
CO_2 emission rights hedging contracts	(170)	(31)
Changes in fair value before taxes	**(1,270)**	**68**

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

(in millions of Euros)	**12.31.2011**	**12.31.2010**
Electricity hedging contracts	(530)	(826)
Gas hedging contracts	90	(115)
Coal hedging contracts	(348)	(424)
Oil product hedging contracts	106	74
CO_2 emission rights hedging contracts	(11)	(180)
Changes in fair value before taxes	**(693)**	**(1,471)**

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

(in millions of Euros)	Units of measure	12.31.2011 Net notional < 1 year	12.31.2011 Net notional 1 to 5 years	12.31.2011 Net notional > 5 years	12.31.2011 Net notional Total	12.31.2011 Fair value	12.31.2010 Net notional Total	12.31.2010 Fair value
Swaps		1	-	-	1	2	-	-
Forwards/futures		19	(5)	-	14	(195)	9	19
Power	**TWh**	**20**	**(5)**	**-**	**15**	**(193)**	**9**	**19**
Swaps		92	-	-	92	(9)	-	-
Forwards/futures		571	916	-	1,487	(72)	768	16
Gas	**Millions of therms**	**663**	**916**	**-**	**1,579**	**(81)**	**768**	**16**
Swaps		5,157	1,889	-	7,046	130	31,098	187
Oil products	**Thousands of barrels**	**5,157**	**1,889**	**-**	**7,046**	**130**	**31,098**	**187**
Swaps		8	4	-	12	39	12	160
Coal	**Millions of tonnes**	**8**	**4**	**-**	**12**	**39**	**12**	**160**
Forwards/futures		4,704	11,687	-	16,391	(127)	6,467	(24)
CO_2	**Thousands of tonnes**	**4,704**	**11,687**	**-**	**16,391**	**(127)**	**6,467**	**(24)**
Other commodities						**1**		**7**
Cash flow hedge commodity derivatives						**(231)**		**365**

42.5 Commodity-related fair value hedges

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

(in millions of Euros)	Units of measure	12.31.2011 Net notional	12.31.2011 Fair value	12.31.2010 Net notional	12.31.2010 Fair value
Gas (swaps)	Millions of therms	52	1	169	(1)
Coal and freight	Millions of tonnes	(15)	(20)	(16)	(21)
Fair value hedging commodity derivatives			**(19)**		**(22)**

43 Derivatives not classified as hedges

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

(in millions of Euros)	Notes	12.31.2011	12.31.2010
Positive fair value of trading derivatives	**37.2**	4,478	4,530
Negative fair value of trading derivatives	**39.1**	(3,433)	(4,002)
Fair value of trading derivatives		**1,045**	**528**
Including interest rate derivatives held for trading	**43.1**	(42)	15
Including currency derivatives held for trading	**43.2**	(35)	(62)
Including non hedging commodity derivatives	**43.3**	1,122	575

43.1 Interest rate derivatives held for trading

Interest rate derivatives held for trading break down as follows:

(in millions of Euros)	Notional at 12.31.2011				Notional at 12.31.2010	Fair value	
	< 1 year	1 to 5 years	> 5 years	Total	Total	12.31.2011	12.31.2010
Fixed rate payer/floating rate receiver	2,311	1,688	563	**4,562**	6,070	**(279)**	(219)
Floating rate payer/fixed rate receiver	1,929	1,611	417	**3,957**	3,855	**242**	235
Variable/variable	-	355	-	**355**	442	**(5)**	(1)
Interest rate derivatives held for trading	**4,240**	**3,654**	**980**	**8,874**	**10,367**	**(42)**	**15**

43.2 Currency derivatives held for trading

Currency derivatives held for trading break down as follows:

- At December 31, 2011:

(in millions of Euros)	Notional amount to be received at 12.31.2011				Notional amount to be given at 12.31.2011				Fair value
	< 1 year	1 to 5 years	> 5 years	Total	< 1 year	1 to 5 years	> 5 years	Total	12.31.2011
Forward transactions	3,177	461	26	**3,664**	3,165	475	32	**3,672**	**(10)**
Swaps	2,171	144	11	**2,326**	2,175	144	12	**2,331**	**(25)**
Options	33	-	-	**33**	37	-	-	**37**	**-**
Currency derivatives held for trading	**5,381**	**605**	**37**	**6,023**	**5,377**	**619**	**44**	**6,040**	**(35)**

- At December 31, 2010:

(in millions of Euros)	Notional amount to be received at 12.31.2010				Notional amount to be given at 12.31.2010				Fair value
	< 1 year	1 to 5 years	> 5 years	Total	< 1 year	1 to 5 years	> 5 years	Total	12.31.2010
Forward transactions	2,686	551	292	**3,529**	2,676	553	297	**3,526**	**(27)**
Swaps	3,297	129	96	**3,522**	3,172	125	95	**3,392**	**(35)**
Currency derivatives held for trading	**5,983**	**680**	**388**	**7,051**	**5,848**	**678**	**392**	**6,918**	**(62)**

43.3 Commodity derivatives not classified as hedges

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

(in millions of Euros)	Units of measure	12.31.2011 Net notional	12.31.2011 Fair value	12.31.2010 Net notional	12.31.2010 Fair value
Swaps		(5)	485	(3)	548
Options		36	31	14	369
Forwards/futures		(14)	663	(22)	(460)
Power	**TWh**	**17**	**1,179**	**(11)**	**457**
Swaps		6	12	10	(24)
Options		16,022	81	110,858	23
Forwards/futures		591	(263)	(152)	(140)
Gas	**Millions of therms**	**16,619**	**(170)**	**110,716**	**(141)**
Swaps		133	17	(7,431)	(8)
Options		1	-	1,283	-
Forwards/futures		(81)	-	199	8
Oil products	**Thousands of barrels**	**53**	**17**	**(5,949)**	**-**
Swaps		(48)	(632)	(48)	(1,135)
Forwards/futures		87	607	83	1,352
Freight		15	46	15	(41)
Coal and freight	**Millions of tonnes**	**54**	**21**	**50**	**176**
Swaps		(561)	-	(1,575)	(7)
Options		3,370	(2)	4,270	(2)
Forwards/futures		9,007	115	11,702	81
CO_2	**Thousands of tonnes**	**11,816**	**113**	**14,397**	**72**
Swaps			(40)		8
Other			**(40)**		**8**
Embedded commodity derivatives			**2**		**3**
Non hedging commodity derivatives			**1,122**		**575**

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

OTHER INFORMATION

44 Off-balance sheet commitments

The table below shows off-balance sheet commitments given and received by the Group at December 31, 2011:

Commitments given (in millions of Euros)	**Notes**	**12.31.2011**	**Maturity within 1 year**	**Maturity between 1 and 5 years**	**Maturity after 5 years**	**12.31.2010**
Fuel and energy purchase commitments	**44.1.1**	**39,928**	6,700	15,056	18,172	**39,596**
Operating contract performance commitments	**44.1.2**	**19,791**	9,284	8,478	2,029	**17,269**
Operating lease commitments as lessee	**44.1.3**	**3,075**	972	1,442	661	**1,791**
Investment commitments given	**44.1.4**	**629**	522	41	66	**2,534**
Financing commitments given	**44.1.5**	**4,584**	953	808	2,823	**5,645**
Total contractual obligations and commitments given		**68,007**	**18,431**	**25,825**	**23,751**	**66,835**

Commitments received (in millions of Euros)	**Notes**	**12.31.2011**	**Maturity within 1 year**	**Maturity between 1 and 5 years**	**Maturity after 5 years**	**12.31.2010**
Operating commitments received	**44.2.1**	**1,871**	924	318	629	**1,122**
Operating lease commitments as lessor	**44.2.3**	**1,268**	263	633	372	**1,473**
Investment commitments received	**44.2.4**	**18**	2	16	-	**4,500**
Financing commitments received	**44.2.5**	**239**	88	139	12	**689**
Total commitments received (1)		**3,396**	**1,277**	**1,106**	**1,013**	**7,784**

(1) Excluding electricity supply commitments, described in note 44.2.2 and credit lines in note 39.2.5.

44.1 Commitments given

44.1.1 Fuel and energy purchase commitments

In the course of its generation and supply activities, the Group has entered into long-term contracts for purchases of electricity, gas, other energies and commodities, as well as nuclear fuels, for periods of up to 20 years.
In almost all cases, these are reciprocal commitments, and the third parties concerned are under an obligation to supply the quantities specified in the contracts.
EDF has also entered into long-term purchase contracts with a certain number of electricity producers, by contributing to the financing of power plants.

At December 31, 2011, fuel and energy purchase commitments mature as follows:

(in millions of Euros)	12.31.2011 Total	Maturity < 1 year	1 - 5 years	5 - 10 years	> 10 years	12.31.2010 Total
Electricity purchases	**9,467**	2,197	2,911	1,283	3,076	8,182
Gas purchases (1)	**10,210**	1,631	5,135	2,498	946	10,609
Other energy and commodity purchases	**1,553**	545	904	98	6	2,239
Nuclear fuel purchases	**18,698**	2,327	6,106	5,938	4,327	18,566
Fuel and energy purchase commitments	**39,928**	**6,700**	**15,056**	**9,817**	**8,355**	**39,596**

(1) Excluding Edison (see note 44.1.1.2).

Most of the changes result from the increase in electricity purchase contracts, especially at EDF.

44.1.1.1 Electricity purchases

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

In addition to the obligations reported above and under article 10 of the Law of February 10, 2000, in mainland France EDF is obliged, at the producer's request and subject to compliance with certain technical features, to purchase the power produced by co-generation plants and renewable energy generation units (wind turbines and small hydro-electric plants, photovoltaic power, etc). The additional costs generated by this obligation are offset, after validation by the CRE, by the Contribution to the Public Electricity Service (*Contribution au service public de l'électricité* or CSPE). These purchase obligations total 33 TWh for 2011 (31 TWh for 2010), including 12 TWh for co-generation (13 TWh for 2010), 12 TWh for wind power (9 TWh for 2010) and 3 TWh for hydropower (4 TWh for 2010).

44.1.1.2 Gas purchases

Gas purchase commitments are principally undertaken by EDF in connection with the expansion of their gas supply businesses.

Edison has entered into "take or pay" gas import contracts. The contracts already in operation concern imports from Russia, Libya, Algeria, Qatar and Norway, for total supplies of 15.8 billion m^3 per year.
The contract with Terminale GNL Adriatico, a gas liquefaction unit in which Edison has a 7.3% holding and which started operation in October 2009, stipulates the following:
- the other shareholders' right to buy out Edison's 7.3% holding in the event Edison ends the supply contract with Rasgas, at a price corresponding to the sum of capital contributions made at the date the purchase option is exercised;
- Edison is to benefit from approximately 80% of the terminal's regasification capacities until 2034.

The Group is involved in independent power plant (IPP) ventures under power purchase agreements (PPA). Gas purchase commitments are mostly related to electric IPPs, covered by electricity sale agreements received. These agreements include "pass-through" clauses allowing almost all fluctuations in supply source costs to be passed on to the customer.

44.1.1.3 Other energy and commodity purchases

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

44.1.1.4 Nuclear fuel purchases

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

44.1.2 Operating contract performance commitments given

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

At December 31, 2011, these commitments mature as follows:

(in millions of Euros)	12.31.2011 Total	Maturity < 1 year	1 - 5 years	> 5 years	12.31.2010 Total
Satisfactory performance, completion and bid guarantees	**566**	276	184	106	801
Commitments related to orders for operating items [(1)]	**4,354**	2,443	1,481	430	3,992
Commitments related to orders for fixed assets	**12,083**	5,586	5,829	668	9,282
Other operating commitments	**2,788**	979	984	825	3,194
Operating contract performance commitments given	**19,791**	**9,284**	**8,478**	**2,029**	**17,269**

(1) Excluding fuel and energy

Satisfactory performance, completion and bid guarantees at December 31, 2011 mainly consist of guarantees given by EDF Energies Nouvelles in connection with its development projects and Dalkia International.

Firm commitments on operating orders other than commodity and energy purchases and commitments for purchases of property, plant and equipment amount to €16,437 million (compared to €13,274 million at December 31, 2010).
The main such commitments concern:

- EDF and ERDF (€10,519 million, €8,338 million at December 31, 2010): commitments of €7,682 million undertaken upon signature of fixed asset orders (€5,638 million at December 31, 2010). The increase observed over the year is principally driven by new contracts to supply steam generators for 1,300 MW reactors. Commitments related to fixed asset orders also include €1,282 million related to construction of the EPR at Flamanville in France (€1,471 million in 2010);
- EDF Energies Nouvelles (EEN) (€2,208 million, €1,875 million at December 31, 2010);
- EDF Energy (€1,267 million, €1,110 million at December 31, 2010): commitments for construction of a CCG plant at West Burton;
- Productions Electriques Insulaires (PEI) (€844 million, €911 million at December 31, 2010): commitments mainly undertaken for plant construction;
- Dunkerque LNG (€783 million): construction of the methane terminal at Dunkirk.

Other operating commitments mainly concern EDF SA (€728 million compared to €665 million in 2010) and Edison (€683 million, compared to €766 million in 2010).

44.1.3 Operating lease commitments as lessee

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

The change in the year essentially results from growth in the freight business at EDF Trading.

44.1.4 Investment commitments given

At December 31, 2011, commitments related to investments are as follows:

(in millions of Euros)	12.31.2011 Total	Maturity < 1 year	1 - 5 years	> 5 years	12.31.2010 Total
Investment commitments	**427**	421	-	6	**2,457**
Other commitments related to Group investments	**202**	101	41	60	**77**
Investment commitments given	**629**	**522**	**41**	**66**	**2,534**

44.1.4.1 Investment commitments

The sale of EDF's investment in EnBW, completed on February 17, 2011, led to cancellation of the €2.3 billion off-balance sheet commitment recorded by the EDF group in respect of OEW's put option to sell EDF part or all of its 25% stake in EnBW.

Also, following the simplified public cash or exchange offer for EDF Energies Nouvelles shares, the commitments made by the EDF group to the Mouratoglou group described in note 42.1.4.1 to the consolidated financial statements at December 31, 2010 no longer exist at December 31, 2011.

The residual commitments principally concern the following operations:

- Agreement with Veolia Environnement:
  Veolia Environnement has granted EDF a call option on all its Dalkia shares in the event that a competitor of EDF takes control over Veolia Environnement. EDF has also granted Veolia Environnement a call option over all its Dalkia shares in the event that the status of EDF should change and a competitor of Veolia Environnement, individually or with other parties, should take control over EDF. If the parties fail to agree on the sale price of the shares, it is to be fixed by an independent expert.

- Commitment by EDF Energy to Centrica
  Centrica has taken a 20% investment in the project company in charge of constructing four EPRs in the United Kingdom. EDF Energy holds the other 80%.
  Centrica has a put option to sell its shares to EDF. This option can be triggered by criteria related to the pre-development budget, or exercised just before the final investment decision for the first EPR.
  At the current stage of the project, the value of this option does not make it a significant commitment for the Group.

- In connection with the formation of EDF Investissements Groupe, C3 (a wholly-owned EDF subsidiary) signed unilateral promises with NBI (Natixis Belgique Investissement, a subsidiary of the Natixis group) to buy and sell shares in investments held respectively by NBI and C3. NBI thus allows C3 to purchase NBI's investment at any time based on the company's net asset value until 2030, and to sell its total investment to NBI based on net asset value during the 5 years following formation of the company.

44.1.4.2 Other commitments related to the Group

The main explanation for the variation over the year was a commitment by Dalkia International to invest in the Warsaw network, in connection with acquisition of Spec in 2011.

44.1.5 Financing commitments given

Guarantees of borrowings by the Group at December 31, 2011 comprise the following:

(in millions of Euros)	12.31.2011				12.31.2010
	Total	Maturity			Total
		< 1 year	1 - 5 years	> 5 years	
Security interests in real property	3,449	241	537	2,671	4,633
Guarantees related to borrowings	158	13	26	119	197
Other financing commitments	977	699	245	33	815
Financing commitments given	**4,584**	**953**	**808**	**2,823**	**5,645**

Security interests and assets provided as guarantees mainly concern pledges or mortgages of tangible assets and shares representing investments in consolidated subsidiaries which own property, plant and equipment. The net book value of current and non-current assets given as guarantees is €3,449 million at December 31, 2011 (€4,633 million in 2010), down by €1,184 million.

Most of the decrease concerns Edison, following cancellation of a pledge on the value of Edipower security interests in favor of a pool of banks (€541 million) after the payment facility was reimbursed, and EDF Energies Nouvelles where pledges of tangible assets were down (€447 million), principally in Italy.

Guarantees related to financing were principally given by EDF.

44.2 Commitments received

44.2.1 Operating commitments received

Electricity supplied by EDF to operators under the NOME law is covered by a stand-alone guarantee enforceable on demand. This guarantee amounts to 1.5 times the average monthly volume of electricity as stated in the CRE's notification of the annual volume of electricity to be sold, valued at the ARENH price in force.

Another factor in the change in 2011 was the signature by Dunkerque LNG of a capacity subscription contract for the Dunkirk methane terminal, with a total value of €515 million.

44.2.2 Electricity supply commitments

In execution of the NOME law on organization of the French electricity market (see note 4.1), the French energy regulator CRE (*Commission de Régulation de l'Energie*) notified EDF of the total volume to be sold to other suppliers for the delivery period running from January 1, 2012 to December 31, 2012: 60.7 TWh.

EDF has signed several long-term contracts with a number of European electricity operators, undertaking to supply electricity. These contracts are of two types:

- co-financing agreements for nuclear power plants, either for a specific plant or for a defined group of plants. Companies participating in this financing are entitled to a share of the power generated by the plants concerned, in proportion to their initial contribution;
- long-term commercial sales contracts, generally covered by the nuclear power plants.

On December 22, 2008, the European Commission approved the EDF Group's takeover of British Energy subject to similar conditions concerning the sale of between 5 and 10 TWh of electricity on the market between 2012 and 2015. Under the agreements signed by EDF and Centrica in 2009, EDF is to supply an additional 18 TWh of electricity to Centrica at market prices for a 5-year period starting in 2011.

Finally, following the dispute between EDF and Direct Energie, the French competition authorities (*Conseil de la concurrence*) issued a ruling on December 10, 2007 accepting and requiring compliance with EDF's proposed commitments to tender a significant capacity of electricity (1,500 MW, i.e. approximately 10 TWh per year for 15 years) to alternative suppliers at prices enabling them to compete effectively with EDF's offers on the deregulated mass market.

For the initial 5-year period, 2008-2012, EDF proposed to apply an average baseload supply price of €44.6/MWh in current Euros in 2011 (€42/MWh in 2010) which will rise to €47.2/MWh in 2012. For the second 10-year period, the price has been fixed at a level that covers EDF's development costs for the Flamanville EPR.

Capacity auctions resulted from a commitment made by EDF to the European Commission when EDF first acquired shares in EnBW. Since 2001, EDF was committed to making part of its generating capacity available on the market up to a volume of 5.4 GW, or approximately 40 TWh a year. This commitment began in 2001 and was intended to make it easier for competitors to enter the French market at a time when no wholesale market existed, for an estimated initial 5 year period, in principle until February 7, 2006.
After discussions with the European Commission and upon a proposal by EDF, in September 2006 the Commission authorized certain adjustments to the auction process, primarily by introduction of a basic product for a period of 4 years which first went on sale in September 2006, although the volume of energy made available annually by EDF was unchanged.
After the sale of EDF International's investments in EnBW to the Baden-Württemberg region on February 17, 2011, EDF applied to the European Commission for termination of the commitments accepted in 2001 when EDF first invested in EnBW. These commitments mainly concern VPP or Virtual Power Plant capacity auctions. On November 30, 2011 the Commission informed EDF that its request was accepted. This decision permanently terminated the auction sales undertaken in this context from that date.
Release from these commitments does not affect the rights acquired in past auctions, including the auction of November 30, 2011.

44.2.3 Operating lease commitments as lessor

The Group is a party to agreements classified as operating leases under IFRIC 4, which account for most of its operating lease commitments as lessor. These agreements mainly concern the Asian IPPs, and also the tolling contract signed by EDF Energy and various partners for the Sutton Bridge plant in 2009.

44.2.4 Investment commitments received

As the Group received a €4.5 billion payment on February 17, 2011 for the sale of its investment in EnBW, no investment commitments received exist in connection with this operation at December 31, 2011.

44.2.5 Financing commitments received

Financing commitments received mainly relate to Dunkerque LNG and EDF Energies Nouvelles.

45 Contingent liabilities

45.1 General Network – European Commission's decision of December 16, 2003

On December 15, 2009 the European Union Court cancelled the European Commission's decision of December 16, 2003 that had classified the tax treatment of provisions created for the renewal of the General Network at the time of EDF's capital increase in 1997 as state aid, and ordered repayment to the French State of the discounted value, i.e. €1,224 million (paid by EDF in February 2004). The State therefore reimbursed this amount to EDF on December 30, 2009, then in February 2010 the European Commission filed an appeal before the Court of Justice of the European Union. A hearing was held in July 2011 and on October 20, 2011 the Advocate General issued his opinion, in which he considered that the decision of December 15, 2009 should be overturned and the case should be referred back to the Court. However, this opinion cannot be considered indicative of the final decision of the Court of Justice, which is expected in 2012.

45.2 Tax inspections

In 2008 and 2009 EDF underwent a tax inspection covering the tax years 2004, 2005 and 2006. At the end of 2011, EDF received a tax reassessment notice. One of the grounds for the reassessment concerns the tax-deductibility of the provision for annuities following work-related accidents and illness; as this is an issue that relates to the special gas and electricity (IEG) statutes, it also concerns RTE, ERDF and Electricité de Strasbourg. The Group is contesting the tax authorities' position on the deductibility of this provision. In late 2011 France's National Commission for Direct Taxes and Sales Taxes issued an opinion in favor of EDF on the main grounds for reassessment resulting from the inspection covering the years 2004 to 2006, notably confirming the deductibility of the provision for annuities following work-related accidents and illness. If the outcome of this dispute is unfavorable, the financial risk for the Group associated with payment of income taxes could amount to some €250 million.

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

45.3 Labor litigation

EDF is party to a number of labor lawsuits with employees, primarily regarding the calculation and implementation of rest periods. EDF estimates that none of these lawsuits, individually, is likely to have a significant impact on its profits and financial position. However, because they concern situations likely to involve a large number of EDF's employees in France, any increase in such litigations could present a risk with a potentially significant, negative impact on the Group's financial results.

45.4 ERDF – Dispute with photovoltaic producers

Photovoltaic installations benefit from an obligation incumbent on EDF (or local distribution companies) to purchase the electricity they generate, in a regulatory framework designed as an incentive to foster development of photovoltaic energy in France. As the sector grew very rapidly, the French government issued in 2010 a series of decisions lowering the purchase tariffs, followed by a "moratorium decree" on December 9, 2010: this decree suspended conclusion of new contracts for a three-month period and stipulated that applications for which the technical and financial proposals had not been adopted by December 2, 2010 would have to be resubmitted after that three-month period, based on a photovoltaic power purchase tariff set in a new decision. This decision was issued on March 4, 2011 and significantly reduced the purchase price for photovoltaic electricity.

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

A Council of State decision of November 16, 2011 rejecting appeals against the moratorium decree of December 2010 generated a large volume of legal proceedings against ERDF in late 2011. Most action was initiated by generators who found themselves forced to abandon their projects since the new electricity purchase tariffs made operating conditions less favorable; they consider ERDF responsible for this situation since it did not issue the technical and financial connection proposals in time for them to benefit from more advantageous terms.

Although provisions have been established to cover the possibility of unfavorable court rulings, the Group does not consider that it can be held liable.

45.5 Edipower

Proceedings are continuing in the action brought before the court of Rome by ACEA (Rome's municipal utility) against several parties, including among others EDF, Edipower Spa and Edison Spa. ACEA is claiming that the joint level of investment in Edison by EDF and AEM violates the 30% limit applicable to public companies' stakes in Edipower, as set by the privatization decree of November 8, 2000. It argues that exceeding the 30% limit constitutes unfair competition that could have an adverse effect on energy market competition and is detrimental to ACEA. Consequently ACEA is claiming compensation and asking for measures to be taken to put an end to the situation, for example disposal of investments in excess of the 30% threshold and a ban on receiving energy generated by Edipower above the authorized quantities. In January 2007, Endesa Italia joined ACEA in its action. The hearing relating to the substance of the case was initially scheduled for June 2008, then subsequently postponed several times until March 24, 2011.

In December 2010, Endesa Italia, now renamed E.ON Italia, and EDF signed a release agreement in which E.ON Italia undertakes to drop the case and all other claims against EDF in connection with EDF's indirect investment in Edipower. The judge took formal note of this agreement in an order issued on May 19, 2011, and deferred the case to March 13, 2013.

45.6 EDF Energies Nouvelles - Silpro

Silpro (Silicium de Provence) entered court-ordered liquidation on August 4, 2009. The EDF ENR group (owned 50% by EDF Energies Nouvelles and 50% by EDF Développement Environnement) held a 30% minority interest in Silpro alongside the principal shareholder Sol Holding, a subsidiary of the E Concern group. On May 30, 2011, the liquidator ordered the shareholders and managers of Silpro to jointly repay the shortfall in assets (in the range of €100 million) resulting from Silpro's liquidation.
After examining the situation and seeking external legal opinions, the Group does not consider it necessary to recognize a provision.

46 Held-for-sale assets and liabilities

	12.31.2011	12.31.2010
(in millions of Euros)	Total	Total
Assets classified as held for sale	**701**	**18,145**
Liabilities related to assets classified as held for sale	**406**	**12,874**

The change in assets classified as held for sale and related liabilities at December 31, 2011 principally results from completion of the sale of EnBW (€17,857 million of assets and €12,862 million of liabilities were recorded at December 31, 2010).
Held-for-sale assets and liabilities as stated in the balance sheet at December 31, 2011 correspond to Edison's investment in Edipower.

47 Contribution of joint ventures

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

- At December 31, 2011

(in millions of Euros)	% of ownership	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Sales	Operating profit before depreciation and amortization
Edison	48.96%	2,106	5,002	1,744	2,176	6,068	480
CENG	49.99%	424	4,849	106	1,739	542	194
Other		3,231	6,652	3,028	774	3,195	456
Total		**5,761**	**16,503**	**4,878**	**4,689**	**9,805**	**1,130**

- At December 31, 2010 [(1)]

(in millions of Euros)	% owned	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Sales	Operating profit before depreciation and amortization
Edison	48.96%	1,921	6,713	2,055	2,159	5,175	693
CENG	49.99%	453	5,215	286	1,611	597	236
Other		2,103	6,101	2,074	1,354	2,990	486
Total		**4,477**	**18,029**	**4,415**	**5,124**	**8,762**	**1,415**

(1) In application of IFRS 5, EnBW income statement data are not consolidated at this level.

"Other" mainly concerns Dalkia and EDF Investissements Groupe.

48 Dedicated assets

48.1 Regulations

The French law of June 28, 2006 and the implementing regulations require assets (dedicated assets) to be set aside for secure financing of nuclear plant decommissioning expenses and long-term storage expenses for radioactive waste (spent fuel and fuel recovered from decommissioning).

The regulations govern the way dedicated assets are built up, the management and governance of the funds themselves. These assets are clearly identified and managed separately from the company's other financial assets and investments. They are also subject to specific monitoring and control by the Board of Directors and the administrative authorities.
The initial aim of these laws and regulations was to cover the full present cost of long-term nuclear obligations by June 29, 2011. The NOME law enacted in 2010 deferred the deadline for constitution of dedicated assets by 5 years.

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

48.2 Portfolio contents and measurement

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

48.2.1 Diversified bond and equity investments

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

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

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

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

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

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

48.2.2 RTE shares

By allocating 50% of RTE shares to dedicated assets, the Group diversified its dedicated asset portfolio and reduced its volatility, since this infrastructure asset offers predictable returns with low correlation with other categories of financial assets such as equities and bonds.

The value of the RTE shares allocated to dedicated assets is €2,368 million at December 31, 2011 (€2,324 million at December 31, 2010). This value is the net consolidated value of 50% of the Group's investment in RTE, presented in investments in associates in the consolidated balance sheet.

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

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

(in millions of Euros)	**Balance sheet presentation**	**12.31.2011**	**12.31.2010**
Equities		5,801	6,819
Debt instruments and cash portfolio		7,510	6,686
Dedicated assets – equities and debt instruments	Available-for-sale financial assets	***13,311***	***13,505***
Currency/equity hedging derivatives	Fair value of hedging derivatives	(22)	(12)
Other		2	(2)
Total diversified investments (bonds and equities)		**13,291**	**13,491**
RTE (50% of the Group's investment)	Investments in associates	**2,368**	**2,324**
Total dedicated assets		**15,659**	**15,815**

48.4 Valuation of the dedicated asset portfolio in 2011

The cash allocation to the dedicated asset portfolio for 2011 amounts to €315 million (compared to €1,343 million in 2010). In view of market conditions, allocations have been suspended since October 2011. In a context of tension on the European sovereign debt markets, the Group continued its prudent investment policy for these financial instruments in 2011, and as a result its exposure at year-end was limited for Italy and negligible for some severely affected Euro-zone countries (Greece, Portugal, Ireland and Spain).

Withdrawals totaling €378 million were made, equivalent to payments made in respect of the long-term nuclear obligations to be covered (€362 million in 2010).

The Group's assessment of the value of the dedicated asset portfolio did not lead to recognition of any impairment in 2011.

A total of €76 million in net gains on disposals was recorded in 2011.

The difference between the fair value and acquisition cost of diversified equity and bond instruments is a positive €219 million at December 31, 2011 before taxes (€744 million at December 31, 2010).

48.5 Present cost of long-term nuclear obligations to be covered

The Group's long-term nuclear obligations in France concerned by the regulations for dedicated assets are included in EDF's consolidated financial statements at the following values:

(in millions of Euros)	12.31.2011	12.31.2010
Provisions for long-term radioactive waste management	6,722	6,508
Provisions for nuclear plant decommissioning	11,366	11,031
Provisions for last cores - portion for future long-term radioactive waste management	389	371
Present cost of long-term nuclear obligations to be covered	**18,477**	**17,910**

49 Related parties

Details of transactions with related parties are as follows:

	Proportionally consolidated companies		Associates		French State or State-owned entities		Group Total	
(in millions of Euros)	12.31.2011	12.31.2010	12.31.2011	12.31.2010	12.31.2011	12.31.2010	12.31.2011	12.31.2010
Sales	5	10	3,437	100	880	1,173	**4,322**	1,283
Fuel and energy purchases	183	98	666	536	1,691	1,822	**2,540**	2,456
Other external purchases	-	-	134	35	880	985	**1,014**	1,020
Financial assets	41	40	-	-	262	235	**303**	275
Other assets	236	67	1,242	1,463	535	541	**2,013**	2,071
Financial liabilities	136	134	1,400	1,914	1	-	**1,537**	2,048
Other liabilities	224	130	794	852	821	1,483	**1,839**	2,465

49.1 Transactions with entities included in the scope of consolidation

Transactions with RTE (classified as an associate since December 31, 2010) are presented in note 24.1.

Transactions with other joint ventures and associates concern sales and purchases of energy.

49.2 Relations with the French State and State-owned entities

49.2.1 Relations with the French State

The French State holds 84.4% of the capital of EDF at December 31, 2011, and is thus entitled in the same way as any majority shareholder to control decisions that require approval by the shareholders.

In accordance with the legislation applicable to all companies having the French State as their majority shareholder, the EDF group is subject to certain inspection procedures, in particular economic and financial inspections by the State, audits by the French Court of Auditors (*Cour des Comptes*) or Parliament, and verifications by the French General Finance Inspectorate (*Inspection Générale des Finances*).
Under an agreement entered into by the French State and the EDF group on July 27, 2001 concerning the monitoring of external investments, procedures exist for prior approval by the French State or notification (advance or otherwise) of the State in respect of certain planned investments, additional investments or

disposals by the Group. This agreement also introduced a procedure for monitoring the results of external growth operations.

The public service contract between the French State and EDF was signed on October 24, 2005. This contract is intended to form the framework for public service missions entrusted by the lawmaker to EDF for an unlimited period. The law of August 9, 2004 does not stipulate the duration of the contract.

EDF, like other electricity producers, also participates in the multi-annual generation investment program defined by the minister in charge of energy, which sets objectives for the allocation of generation capacity.

Finally, the French State intervenes through the regulation of electricity and gas markets, particularly for authorization to build and operate generation facilities, establishment of sales tariffs for customers that have stayed on the regulated tariffs, transmission and distribution tariffs, and also determination of ARENH price in accordance with the NOME law, and the level of the Contribution to the Public Electricity Service (*Contribution au service public de l'électricité* or CSPE).

49.2.2 Relations with GDF SUEZ

Since the distribution network management businesses were transferred to subsidiaries – ERDF SA, a subsidiary of EDF, has managed electricity distribution since January 1, 2007 and GRDF SA, a subsidiary of GDF SUEZ, has managed gas distribution since January 1, 2008 - the agreement defining relations between ERDF SA and GRDF SA in respect of the common operator has replaced the previous agreement between EDF and GDF SUEZ.
The common network operator manages the local public service for energy distribution, covering network construction, operation and maintenance, and metering.

EDF and GDF SUEZ also have two other common services governed by contracts:
- the Health and Safety Delegation;
- the Information Technology and Telecommunications Division (DIT), which is responsible for certain information systems.

49.2.3 Relations with public sector entities

The Group enters into normal business transactions with public sector entities, mainly for electricity supplies and invoicing for access to the transmission network.

Transactions with AREVA concern uranium purchases, uranium enrichment, nuclear fuel purchases, plant maintenance operations and equipment purchases, and transportation, storage, processing and recycling services for spent fuel.
On December 19, 2008 EDF and AREVA signed a framework agreement for spent fuel management contracts concerning periods after 2007. In execution of this agreement, EDF and AREVA signed two contracts on July 12, 2010 entitled the "EDF-AREVA NC Processing-Recycling agreement" and the "Protocol for recovery and conditioning of EDF waste, the final shutdown and decommissioning of the AREVA NC plant at La Hague".
Under these agreements, on June 23, 2011 EDF paid AREVA the balance of its payment for recovering and conditioning EDF's waste, and final shutdown and decommissioning of facilities at La Hague, amounting to €794 million including taxes. As a result, the Group's financial statements at December 31, 2011 no longer show any liability in connection with this obligation.

The Group also holds shares in AREVA, as stated in note 37.2.2.2.

49.3 Management compensation

The Company's key management and governance personnel are the Chairman of the Board of Directors, the members of the COMEX since February 4, 2010 or their date of appointment if they joined the COMEX after that date, and the external members of the Board of Directors.

The total compensation paid by EDF and controlled companies to the Group's key management and governance personnel amounted to €11.3 million in 2011 (€9.0 million in 2010). This amount covered short-term benefits (basic salaries, performance-related salary, profit share and benefits in kind), special IEG post-employment benefits where relevant, and the corresponding employer contributions, plus director's fees. The change observed in 2011 is largely explained by the fact that certain members of the COMEX were appointed in the course of the year 2010, and the associated compensation was not included on a 12-month basis in the previous year.

Other than the benefits reported above, key management and governance personnel benefit from no other special pension system, starting bonus or severance payment entitlement other except by contractual arrangement.

50 Environment

50.1 Greenhouse gas emission rights

In application of the Kyoto protocol, the EU Directive aiming to reduce greenhouse gas emission levels by attributing emission rights came into effect in 2005, for an initial three-year period which ended on December 31, 2007 and was marked by a reduction in the volumes of rights allocated.
The second allocation period runs from 2008 to 2012.

In the EDF group, the entities subject to this Directive are EDF, EDF Energy, Edison, Fenice, Dalkia International and Dalkia Investissement, Bert, Kogeneracja, Zielona Gora, EC Krakow, Ersa, EC Wybrzeze, EDF Luminus and ESTAG.

In 2011, the Group surrendered 71 million tonnes in respect of emissions generated in 2010. In 2010, the Group surrendered 89 million tonnes in respect of emissions generated in 2009.

The Group's total quota allocation for 2011 recorded in the national registers is 59 million tonnes (62 million tonnes for 2010).

The volume of emissions at December 31, 2011 stood at 59 million tonnes. The provision resulting from over-quota emissions amounts to €149 million and covers the shortfall in quotas at December 31, 2011 (€319 million at December 31, 2010).

As part of the Clean Development Mechanism defined in the Kyoto protocol the Group set up a Carbon Fund in late 2006 with the aim of supporting projects to reduce greenhouse gas emissions in emerging countries and benefiting from carbon emission permits. This fund involves EDF and all the European entities, and is managed by EDF Trading.

CER credit purchases through the Carbon Fund amount to €192 million at December 31, 2011 (€182 million at December 31, 2010).

50.2 Energy savings certificates

In all its subsidiaries, the Group is engaged in a process to control energy consumption through various measures developed by national legislations, in application of European Union Directives.

The French Law of July 13, 2005 introduced a system of energy savings certificates. Companies selling electricity, gas, heat or cold to end-users with sales above a certain level are subject to energy savings obligations for a three-year period. They fulfill these obligations by making direct or indirect energy savings rewarded by certificates, or by purchasing energy savings certificates. At the end of the three years, the entities concerned must provide evidence of compliance with obligations by surrendering the certificates, or pay a fine to the Treasury.

This second period, which runs from January 1, 2011 until December 31, 2013, extends the system to new obligated actors (fuel distributors) and applies stricter requirements for obtaining energy savings certificates. EDF is well-placed to meet its obligation thanks to energy-efficient offers for each market segment: residential customers, business customers, local authorities and organizations funding social projects.

EDF's obligation will be calculated retrospectively, based on gas and electricity sales to households and service sector businesses for the period 2010-2012. The volumes of certificates obtained between the two periods will count towards achievement of the obligation for the second period.

50.3 Renewable energy certificates

In the United Kingdom, Poland, Belgium and Italy, certificates are awarded when electricity is generated from renewable energy sources, to encourage greater use of renewable energies through a compensation system for generation costs and an obligation for energy suppliers to sell a certain quantity of renewable energy. In practice, the generator or supplier must provide proof that the obligation has been fulfilled or surrender the renewable energy certificates gained and/or purchased. Similar systems have been introduced for cogeneration.

In 2011, Italy, Belgium and the United Kingdom did not have enough certificates to cover their obligation, and a provision of €317 million was recorded to cover the shortfall.

51 Subsequent events

51.1 Bond issue

On January 18, 2012 EDF received the funds from a 10-year €2 billion euro bond issue, with annual coupon of 3.875%.

51.2 Offer to take over Photowatt

EDF, through its subsidiary EDF Energies Nouvelles Réparties (EDF ENR), has announced on February 10, 2012, that it has filed to absorb Photowatt, the only French maker of silicon-based solar cells, which was placed in receivership in November 2011.
Photowatt holds 40% of PV Alliance, a research and development company in the field of photovoltaic technology, in which EDF ENR already has a 40% stake along with the CEA (20%).
EDF ENR's offer is conditioned on the full takeover of PV Alliance and to the granting of an exclusive and global control of the heterojunction technology, aiming at replacing the current technology in the coming years.

The offer will be subject to the approval required for this kind of operation (governance, competition…).

51.3 Long term partnership for natural uranium with Areva

On February 10, 2012, EDF and AREVA have reached an agreement on the principles of a long-term partnership to supply natural uranium over the 2014-2030 period, ensuring the security of supply and the competitiveness of the French nuclear fleet.
Covering a total volume which can reach more than 20,000 metric tons, the agreed principles foresee the extension of the supply contract from AREVA's existing mines, and open up the possibility of EDF part-funding the development of a new mining project in exchange for a share of its future production. These principles will provide the basis for a series of agreements which will be subject to approval by the management bodies of the two Groups.

This new industrial and financial partnership consolidates AREVA's status as leading partner of EDF for the supply of natural uranium. AREVA currently provides EDF with nearly 40% of its annual requirements in this area.

52 Scope of consolidation

The scope of consolidation is as follows:

COMPANY [1]	COUNTRY	Consolidation method at Dec 31, 2011	% of ownership at Dec 31, 2011	% of ownership at Dec 31, 2010	Business sector
	France				
Electricité de France		Parent company	100	100	G,D,O
RTE		EM	100	100	T
Electricité Réseau Distribution France (ERDF)		FC	100	100	D
Groupe PEI		FC	100	100	G
	United Kingdom				
EDF Energy		FC	100	100	G,O
EDF Energy UK Ltd		FC	100	100	O
EDF Development Company Ltd		FC	100	100	O
	Germany				
EnBW				46,07	G,D,O,T
	Italy				
Edison		PC	48,96	48,96	G,D,O
Transalpina Di Energia (TDE)		PC	50	50	O
MNTC		FC	100	100	O
Wagram 4		FC	100	100	O
Fenice		FC	100	100	G
	Other International				
EDF International	France	FC	100	100	O
Estag	Austria	PC	25	25	G,O
EDF Belgium	Belgium	FC	100	100	G
Segebel	Belgium	-	-	100	O
EDF Luminus	Belgium	FC	63,53	63,50	G
Ute Norte Fluminense	Brazil	FC	90	90	G
Ute Paracambi	Brazil	FC	100	100	G
Figlec	China	FC	100	100	G
Shandong Zhongua Power Company	China	EM	19,60	19,60	G
San Men Xia	China	EM	35	35	G
Taishan Nuclear Power JV Co	China	EM	30	30	G
EDF Inc	US	FC	100	100	O
Unistar Nuclear Energy Inc	US	FC	100	100	G
Constellation Energy Nuclear Group (CENG)	US	PC	49,99	49,99	G
Bert	Hungary	FC	95,57	95,57	G
EDF Demasz	Hungary	FC	100	100	G, D, O
Sviluppo Nucleare Italia	Italy	-	-	50	O
Nam Theun Power Company	Laos	EM	40	40	G
SLOE Centrale Holding BV	Netherlands	PC	50	50	G
EC Krakow	Poland	FC	94.31	94.31	G
EC Wybrzeze	Poland	FC	99.75	99.75	G
EDF Polska	Poland	FC	75	86.52	O
ERSA (Rybnik)	Poland	FC	64.85	79.79	G
Kogeneracja	Poland	PC	33.40	40.58	G, D
Zielona Gora	Poland	PC	32.87	39.93	G, D
SSE	Slovakia	PC	49	49	D
EDF Alpes Investissements	Switzerland	FC	100	100	O
ALPIQ	Switzerland	EM	25	26.06	G, D, O, T
Meco	Vietnam	FC	56.25	56.25	G

Consolidation methods: FC = full consolidation, PC = proportional consolidation, EM = equity method.

Business segments: G = Generation, D = Distribution, T = Transmission, O = Other

COMPANY	COUNTRY	Consolidation method at Dec 31, 2011	% of ownership at Dec 31, 2011	% of ownership at Dec 31, 2010	Business sector
		Other Activities			
Dalkia Holding	France	EM	34	34	O
Edenkia	France	-	-	50	O
Dalkia International	France	PC	50	50	O
Dalkia Investissement	France	PC	67	67	O
Richemont	France	FC	100	100	G
EDF Développement Environnement SA	France	FC	100	100	O
Société pour le Conditionnement des Déchets et Effluents Industriels (SOCODEI)	France	FC	100	100	O
Cofiva	France	FC	100	100	O
Sofinel	France	FC	55	55	O
Electricité de Strasbourg	France	FC	88.82	88.82	D
TIRU SA - Traitement Industriel des Résidus Urbains	France	FC	51	51	O
Dunkerque LNG	France	FC	65	100	O
EDF Energies Nouvelles (EDF EN)	France	FC	100	50	G,O
Immobilière Wagram Etoile	France	FC	100	100	O
La Gérance Générale Foncière	France	FC	100	100	O
Immobilière PB6	France	PC	50	50	O
AEW IMCOM 6	France	PC	50		O
Société Foncière Immobilière et de Location (SOFILO)	France	FC	100	100	O
Protertia	France	FC	100	100	O
EDF Optimal Solutions	France	FC	100	100	O
Société C2	France	FC	100	100	O
Société C3	France	FC	100	100	O
EDF Holding SAS	France	FC	100	100	O
Domofinance	France	EM	45	45	O
Fahrenheit	France	FC	100	100	O
EDF Trading	United Kingdom	FC	100	100	O
EDF Production UK Ltd	United Kingdom	FC	100	100	O
DIN UK	United Kingdom	FC	100	100	O
Wagram Insurance Company	Ireland	FC	100	100	O
Océane Ré	Luxemburg	FC	99.98	99.98	O
EDF Investissements Groupe	Belgium	PC	93.32	93.32	O
EDF Gas Deutschland	Germany	FC	100	100	O
FSG	Germany	PC	50	50	O

Consolidation methods: FC = full consolidation, PC = proportional consolidation, EM = equity method.
Business segments: G = Generation, D = Distribution, T = Transmission, O = Other

At December 31, 2011 the percentage of voting rights, which is decisive for assessing control, differs from the Group's percentage ownership for the following entities:

COMPANY	% of ownership at Dec 31, 2011	% Voting rights at Dec 31, 2011
Edison	48.96	50
ERSA (Rybnik)	64.85	64.90
Dalkia International	50	24.14
Dalkia Investissement	67	50
Sofinel	55	54.98
EDF Investissements Groupe	93.32	50