EDF GROUP

SUSTAINABLE DEVELOPMENT INDICATORS 2012

Introduction

The sustainable development indicators booklet is included in the sustainable development report published by EDF at Group level each year, in accordance with its commitment to transparency vis-à-vis its stakeholders. The report may also be viewed on the EDF Group website (http://about-us.edf.com/strategy-and-sustainable-development/socially-responsible-investing/indicators).

EDF has provided information on sustainable development since 2001. All the published indicators follow the recommendations of the Global Reporting Initiative (GRI G3), the international reference framework in this area. The summary table of indicators, included at the end of the report, cross-references the indicators used by EDF with the equivalent GRI indicators.

This report also includes the quantification of expenditure on environmental protection, carried out by the Group in particular to complete the annual survey required by the INSEE[1] statistics bureau relating to corporate expenditure on environmental protection.

Since 2005, the Group has engaged in **the progressive verification** of its environmental and social data and has submitted a sample of this data for external assessment by its Statutory Auditors.

In 2012, the EDF Group scope for the SF_6 emissions indicator was extended. In addition, three international subsidiaries, (Zielona Gora, Kogeneracja and Edison), previously proportionately consolidated, were fully consolidated for the period covered by this report.

In respect of **2012**, the Group's Statutory Auditors issued a review report, which expressed limited assurance on a selection of the Group's environmental and social indicators, identified by the symbol * in the tables presented at the end of this report, together with reasonable assurance for two key indicators:

- CO_2 emissions from electricity and heat generation;
- total workforce at the end of the period, set out by age and by sex.

NB: In the current document, the term "EDF" refers to parent company EDF SA; "EDF Group" or "the Group" refers to EDF and its consolidated subsidiaries.

1. The National Institute of Statistics and Economic Studies (INSEE) is a Directorate General of France's Ministry of the Economy, Finance and Employment.

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Statutory Auditors' assurance report on a selection of social and environmental indicators published in the 2012 Reference Document, the 2012 Sustainable Development Indicators Report, and the Group's 2012 Business and Sustainable Development Report

This is a free translation into English of the statutory auditors' report issued in French prepared in accordance with Article L.225-235 of French Commercial Code is provided solely for the convenience of English speaking users.

This report should be read in conjunction and construed in accordance with French law and the relevant professional standards applicable in France.

Financial year closed 31 December 2012

To General Management

As requested, and in our capacity as Statutory Auditors of EDF SA ("the Company"), we are presenting our report on of limited and reasonable level of assurance on a selection of social and environmental information identified by the signs (✸✸) and (✸✸) in the tables in the "Summary of environmental and Social Indicators" section of the 2012 Reference Document, the 2012 Sustainable Development Indicators Booklet, and the 2012 Activity and Sustainable Development Report.

Company's Responsibility

This selection of indicators ("the Data") was prepared under the responsibility of the Sustainable Development Department in conjunction with the Group Human Resources Department in accordance with the internal measurement and reporting protocol (hereafter "the Protocol"), which is available upon request to the Sustainable Development and HR Control Departments at the Company's headquarters, and summarized in the 'Reporting methodology for 2012 environmental and social data' paragraph of the 2012 Reference Document, the 2012 Sustainable Development Indicators Booklet, and the 2012 Activity and Sustainable Development Report.

Independence and quality control

Our independence is defined by the rules and regulations, the deontological code of the profession and the provisions of Article L. 822-11 of the French Commercial Code. In addition, we implemented a comprehensive system of quality control including documented policies and procedures aiming at ensuring the compliance with the deontological rules, professional standards and applicable rules and regulations.

The Responsibility of the Statutory Auditors

It is our responsibility, on the basis on our work:

- to provide reasonable assurance on whether the information selected by the Group, as referred to in the table below, and identified by the sign (✸✸) is fairly presented, in all material respects, in accordance with the Protocol.

Scope	Social indicators
EDF Group	Total workforce at the end of the period apportioned by gender and age

Scope	Environmental indicators
EDF Group	CO_2 emissions (for electricity and heat production)

- to provide limited assurance on whether the information selected by the Group, as referred to in the table below, and identified by the sign (*) is fairly presented, in all material respects, in accordance with the Protocol.

Scope	Social indicators
EDF Group	Number of managers and non-managers
	Percentage of women at managerial level
	External hires
	Other arrivals
	Retirement/inactivity departures
	Resignations
	Lay-offs, dismissals, employees made inactive
	Other departures
	Number of part-time employees
	Fatal accidents (employees)
	Work accidents (involving one day or more out of work)
	Injury frequency rate
	Number of employees having received a training course

Scope	Social indicators
EDF SA	Absenteeism
	Number of employees with disabilities
	Degree of seriousness

Scope	Environmental indicators
EDF Group	Quantity of electricity and heat produced through renewable energy (excluding hydroelectric power)
	SO_2 emissions (for electricity and heat production)
	Cooling water drawn, including freshwater
	Cooling water returned, including freshwater
	Coal consumption
	Hazardous waste
	Non-hazardous waste
	Conventional industrial waste recycled or discharged for recycling
	SF_6 emissions

Scope	Environmental indicators
EDF SA	Solid-low and intermediate-level short-lived radioactive waste
	Solid-high and intermediate-level long-lived radioactive waste
	Very low activity radioactive waste from decommissioning
EDF Energy	Evacuated uranium
	Evacuated low-level radioactive waste
	Intermediate-level radioactive waste generated
Constellation Energy Nuclear Group (CENG)	Delivered nuclear fuel
	Low- and intermediate-level activity radioactive waste removed

Nature and scope of work

We conducted our engagement in accordance with the ISAE 3000 standard (International Standard on Assurance Engagements) and with the professional guidelines applicable in France.

We performed the following procedures in order to obtain:

- a reasonable assurance that the data selected by the Group and identified by the sign (**) do not contain any significant anomalies which cast doubt on their conformity, in all their significant aspects, with the Protocol;
- a limited assurance that the data selected by the Group and identified by the sign (*) do not contain any significant anomalies which casts doubt on their conformity, in all their significant aspects, with the Protocol; a higher level of assurance would have required more extensive work.

We referred to our experts in societal responsibility to assist us with the following work:

We performed the following works:

- we assessed the suitability of the protocol regarding its relevance, completeness, neutrality, understandability and reliability, by taking into consideration, if necessary, the best practices in the sector;
- we examined the internal control and risk management procedures related to the preparation of the selected Data;
- we verified the implementation in the group of a collection, consolidation, handling and control process aiming at the completeness and the consistency of the selected data;

- we interviewed the people responsible for the social and environmental and social reporting and conducted tests of detail on a sample-basis to verify that the protocol was correctly applied in certain entities[1] ("the Entities");
- we conducted consistency tests on the consolidation of this Data.

The Entities selected represent with respect to:

- reasonable assurance: 63% for the indicator "Total workforce end of period apportioned by age and gender" and 50% for the indicator "CO_2 emissions (for electricity and heat production)";
- moderate assurance: on average 53% of the indicators related to the social data and 42% of the indicators related to the environmental data tested.

Conclusions

Reasonable assurance

In our opinion, the Data examined and identified by the sign (✸✸) and presented in the tables of the "Summary of Environmental and Social Indicators" of the EDF Group's 2012 Reference Document, the 2012 Sustainable Development Indicators Booklet, and the 2012 Business and Sustainable Development Report, were prepared, in all material aspects, in accordance with the above-mentionned Protocol stated.

Limited assurance

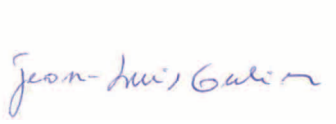
Based on our work, we did not identify any material anomalies likely to call into question that the examined Data, identified by the sign (✸) and presented in the tables of the section "Summary of environmental and social indicators" of the EDF group's 2012 Reference Document, the 2012 Sustainable Development Indicators Booklet and the 2012 Activity and Sustainable Development Report.

Paris – la Défense and Neuilly-sur-Seine, 13 February 2013

KPMG Audit
Department of KPMG S.A.

Deloitte & Associés

Jacques-François Lethu
Partner



Jean-Louis Caulier
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Partner

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Partner

1. *CENG: Calvert Cliffs Nuclear Power Plant (USA), and corporate headquarters of CENG (USA).*

   EDF Énergies Nouvelles: technical office (France).

   EDF Energy: Nuclear power plant of Dungeness B (G-B.), Nuclear power plant of Hunterston B (G-B.), thermal power plant of Westburton (G-B.), HR centre of Crawley (G-B.) and EDF Energy's head office.

   EDF Polska: thermal power plant of Rybnik (Poland) et EDF Polska's head office (Poland).

   EDF SA: thermal power plant of Cordemais (France), thermal power plant of Bouchain (France), thermal power plant of Le Havre (France), thermal power plant of Blénod (France), nuclear power plant of Gravelines (France), nuclear power plant of Flamanville 1 & 2 (France), nuclear power plant in decommissioning of Brennilis (France), HR agency of Nantes (France), HR agency of Toulouse (France), HR agency of Rouen (France).

   Edison: thermal power plant of Marghera Levante (Italy), thermal power plant of Torviscosa (Italy) and Edison's head office (Italy).

   ERDF: DR Nord-Pas-de-Calais (France), DR Sillon rhodanien (France), DR Pyrénées-Landes (France), MOE HR agency Sud-Ouest (France), MOE HR agency Est (France), MOE HR agency Manche – mer du Nord (France).

   Figlec: thermal power plant (China).

   Tiru: incinerator of Saint-Ouen (France).

   UTE Norte Fluminense: thermal power plant (Brazil).

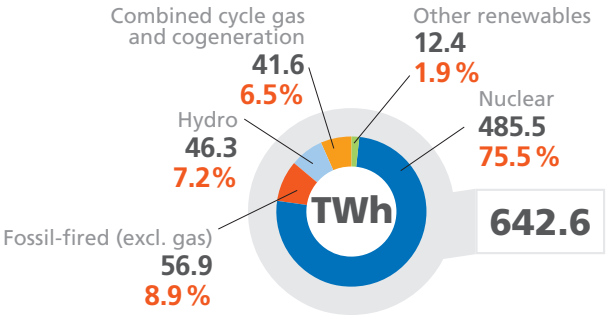
Key figures

Generation

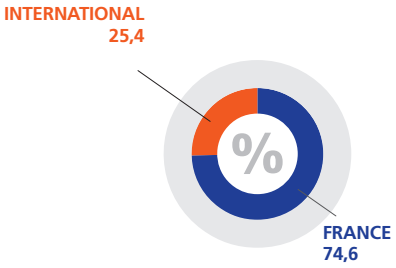
The EDF Group, a major player in electricity generation in Europe, remains the leader among regional utilities. It is also a recognized player in the gas sector.

Electricity generation

Electricity generated by the EDF Group (as a % and in TWh) in 2012



Geographic distribution of electricity generation (France and international) in 2012



The **EDF Group** recorded a 2.2% increase in total electricity generated in 2012 compared with 2011, reflecting a 9% increase in fossil-fired, a 28% increase in gas and a 3% decline in nuclear at Group level, mainly in France.

The increases are slightly lower when the consolidation scope effect is taken into account, in particular the full consolidation of Italian subsidiary Edison.

In **France**, against a backdrop of higher electricity consumption[1] (489.5 TWh, i.e. 2.1% more than in 2011, reaching a peak in February 2012 due to cold weather), EDF's generation declined by 1.2%, with a marked fall in nuclear (3.8% or 16.2 TWh) and an increase in electricity from fossil-fired and hydro, up 23% compared with 2011, a year of poor hydro generation weather conditions.

The increase in thermal generation came from both fossil-fired (+1.9 TWh) and gas-fired (+0.75 TWh) plants, the latter being due to the commissioning of the Blénod 5 and Martigues 5 combined cycle gas turbines (CCGT) and to pre-commissioning testing at Martigues 6.

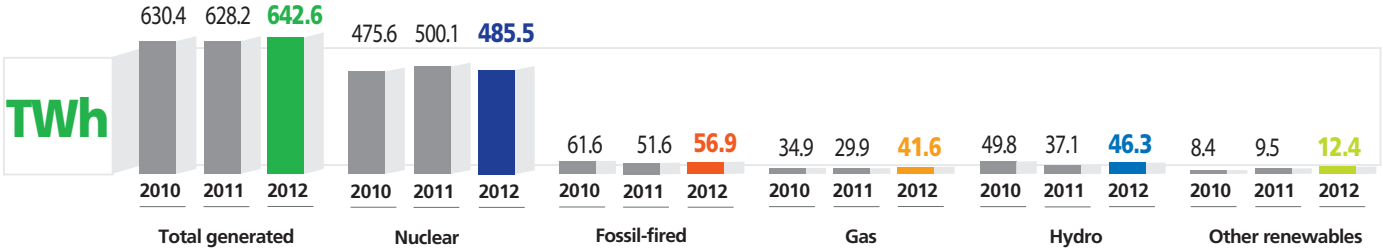
In the **United Kingdom**, generation increased across the board in 2012: nuclear (+7.5% with 4.2 TWh), fossil-fired (+6.3 TWh) and gas-fired (pre-commissioning testing of the West Burton CCGT).

In **Italy**, on a constant consolidation scope basis, there was a sharp drop in thermal generation and a 31% increase in electricity from renewable sources (33% from wind and 38% from solar).

Internationally, the increase in gas-fired generation was due mainly to strong growth in Brazil (+2.1 TWh) and the full consolidation of data from Kogeneracja in Poland and Edison in Italy, previously proportionately consolidated, for the entire year.

At **Group** level, the 23.2% growth in electricity generated from renewable sources (other than hydro) is in line with the target for 2020: to have a net installed capacity of 160 GW, 75% of it being carbon-free energy.

EDF Group electricity generation (in TWh): consolidated data for 2010, 2011 and 2012



1. *RTE 2012 Electricity Report.*

Edison oil and gas activities

EDF considers that gas is a key component of its low-carbon energy mix. Gas is also important to the Group's electricity generation business, giving it a source of supply for its combined cycle gas turbines and complementing the services it proposes to end-customers.

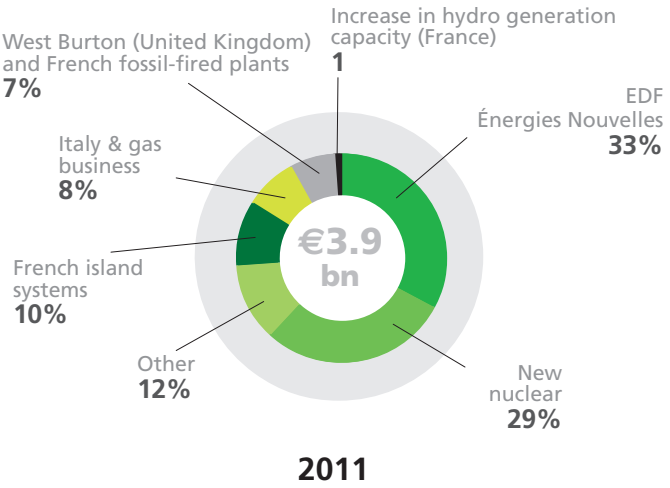
Edison oil and gas sources of supply and production

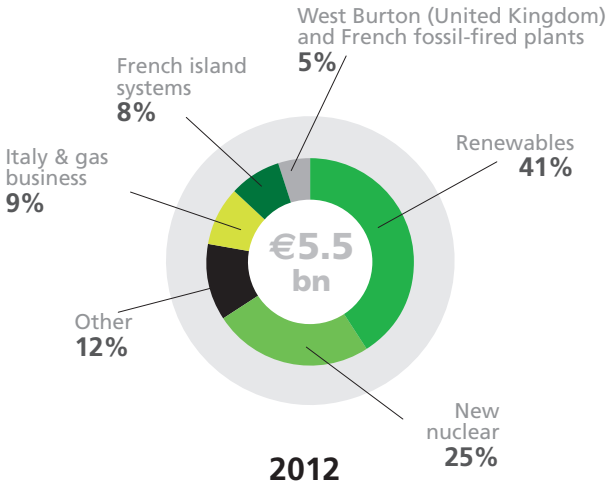
	2012	2011
Gas sources of supply (10^6 m³)		
Pipeline imports	6,579	5,682
LNG imports	5,913	6,130
Domestic and other purchases	2,672	2,873
Oil and gas production (10^6 m³)		
Gas in Italy (Mm³)	611	520
Gas abroad (Mm³)	1,906	1,726
Oil in Italy (thousands of barrels) (Mm³)	1,809	2,142
Oil abroad (thousands of barrels) (Mm³)	1,738	1,366

Investments

A strong commitment from EDF in favor of developing renewable energies.

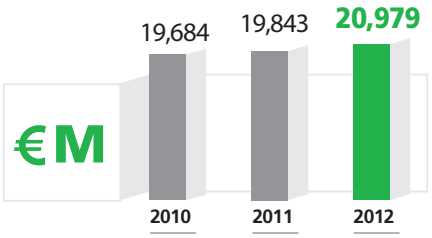
Breakdown of the EDF Group's gross development investments





Provisions

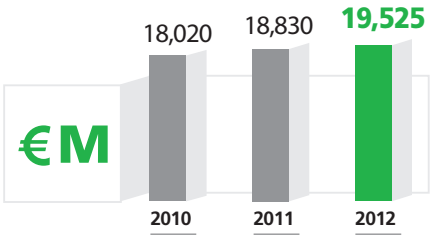
Provisions for plant decommissioning and last core[1] : EDF Group



Provisions by company at December 31, 2012 (€ millions)

EDF	EDF Energy	CENG	Other
14,771	5,489	547	172

Provisions for the back end of the nuclear fuel cycle: EDF Group



Provisions by company at December 31, 2012 (€ millions)

EDF	EDF Energy	Other
16,611	2,913	1

These provisions refer to the downstream part of the nuclear fuel cycle: the reprocessing of nuclear fuel and old waste, as well as the decommissioning of reactors (the share of the provision for last core corresponding to unused fuel present in the reactor when shut down permanently).

EDF assumes technical and financial responsibilities for the decommissioning of reactors and has therefore set aside substantial provisions. Decommissioning commitments involve EDF's nuclear plants in France, those of Constellation Energy Nuclear Group in the United States and those of EDF Energy in the United Kingdom. In France, nine reactors (the Chooz A PWR, one heavy water reactor at Brennilis, one fast neutron reactor at Creys-Malville and six graphite gas reactors using natural uranium at Bugey, Saint-Laurent and Chinon) will be decommissioned between now and 2035.

EDF's commitments covered by the dedicated assets involve all of the following:

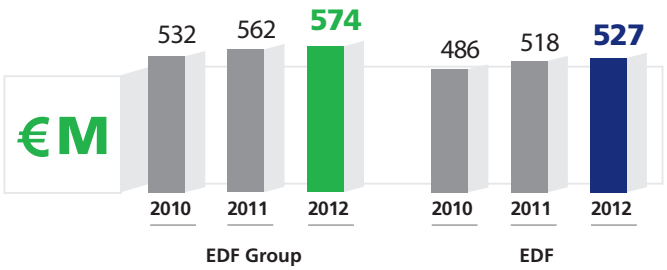
- the decommissioning of operating and non-operating nuclear reactors;
- the removal and permanent storage of waste;
- the management of burnt fuel and the storage of waste related to the non-consumed portion of the last core.

Since 2007, in compliance with regulations in force, EDF has sent the administrative authority a three-yearly report, and a yearly update on the expenses trend, the calculation of provisions and the management of the assets. The administrative authority is responsible for assessing the information supplied by EDF with regard to applicable laws and decrees, and for evaluating the appropriateness of the provisions set aside.

1. *Last core = nuclear fuel load of a reactor*

Research and development expenditure

Net R&D expenditure



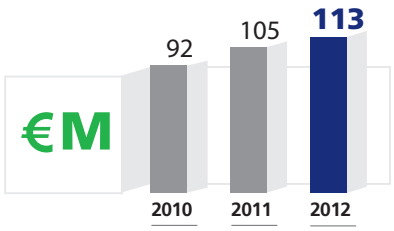
In 2012, EDF's research and development expenditure amounted to €527 million, up from the 2010 figure.

Nearly 70% of EDF's R&D is dedicated each year to projects commissioned by the Group's operational departments and subsidiaries. The remaining budget is allocated to medium- and long-term actions for the future, in line with the Group's three main R&D priorities:

- consolidating and developing a carbon-free energy mix;
- promoting flexible, low-carbon energy demand;
- adapting electricity systems to new challenges.

About 20% of the Group's total R&D expenditure is related to **environmental issues.**

Net R&D expenditure related to environmental issues: EDF



R&D expenditure dedicated to protecting the environment has increased steadily since 2010. It involves mainly:

- research on energy efficiency for major players in the energy sector;
- renewable energies and their incorporation into electricity systems;
- electric mobility and the sustainable city;
- the local impact of climate change;
- rehabilitation of an area evacuated after an industrial accident, particularly nuclear;
- other environmental issues such as biodiversity, water quality and pollution reduction.

Distribution of R&D expenditure relating to the environment in 2012

Energy demand management, or demand-side management (DSM) slight increase of 6%	■ Development of simulation tools for the sustainable city in information processing ■ Development of activities on electricity transmission (+37%) and distribution (+43%) networks: smart electricity systems, connection of electric vehicles, forecasting wind turbine intermittency, etc.
Non-DSM slight increase of 10%	■ Preparation of tools and methods (+26%) to support the development of new renewable processes (offshore wind farms, geothermal energy) ■ Understanding and modeling the transport of hydrocarbons at sea following accidental pollution

Environmental protection expenditure

(€ billion)	**2012**	2011	2010
EDF	3.5	2.8	2.6
of which, provisions for environmental risks	2.5	1.8	1.7

Environmental protection expenditure is the additional identifiable expenditure aimed at preventing, reducing or repairing the potential or effective environmental damage caused by or potentially caused by the company's activities. This definition is based on the recommendation issued by the Conseil National de la Comptabilité (the French national accounting council) on October 21, 2003, which is, in turn, based on the European recommendation of May 30, 2001.

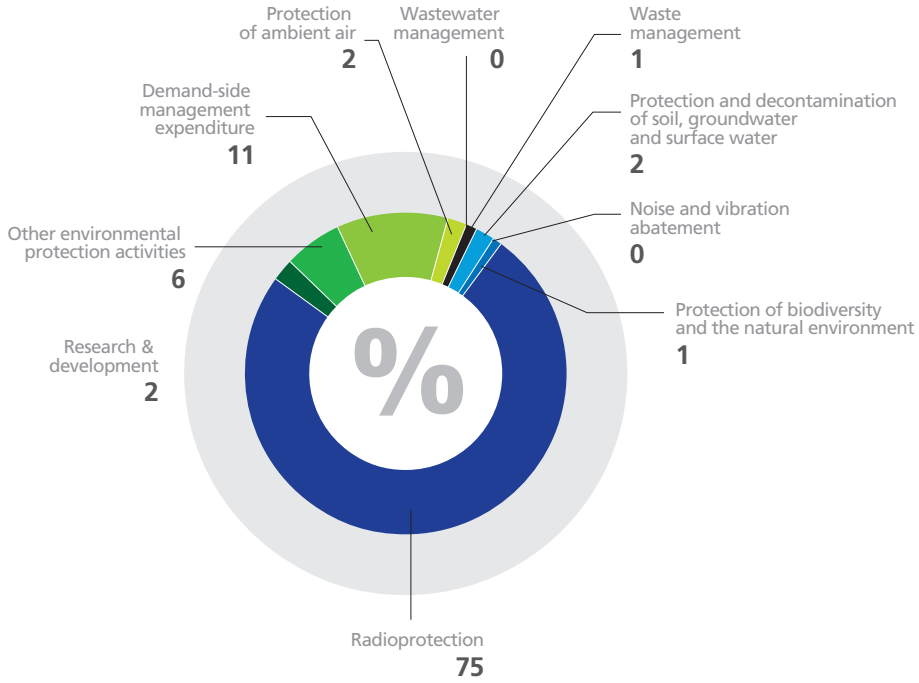
For example, the construction of a wastewater treatment plant is an environmental expense, but the ongoing maintenance costs over the ensuing years lose their environmental nature. However, any additional expenses incurred to increase the wastewater treatment capacity relative to the initial capacity are environmental protection expenditure.

Environmental protection expenditure rose 25% in 2012, but the allocation of this expenditure across the 10 budget areas of the Eurostat classification (issued by the European Commission's Directorate General for the Environment) varies each year.

Expenditure increased significantly on protecting the soil, groundwater and surface water (+51%) and radioprotection (+36%) in 2012.

Provisions were taken during the year in respect of forecast expenditure on decommissioning first-generation plants.

Environmental protection expenditure allocation in 2012

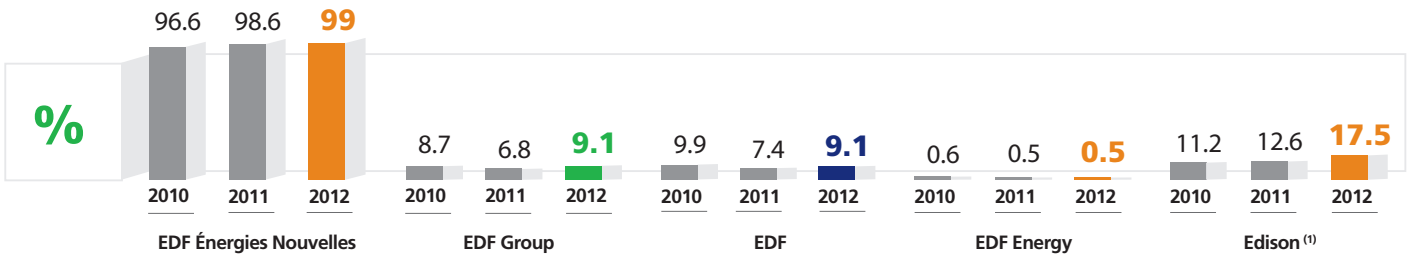


Renewable energies

The EDF Group is making significant investments in renewable energies, particularly in hydro, wind and solar power, through EDF Énergies Nouvelles and its large European companies.

Percentage of electricity and heat from renewable energy sources

NB: Hydro generation includes the energy produced by pumping stations.



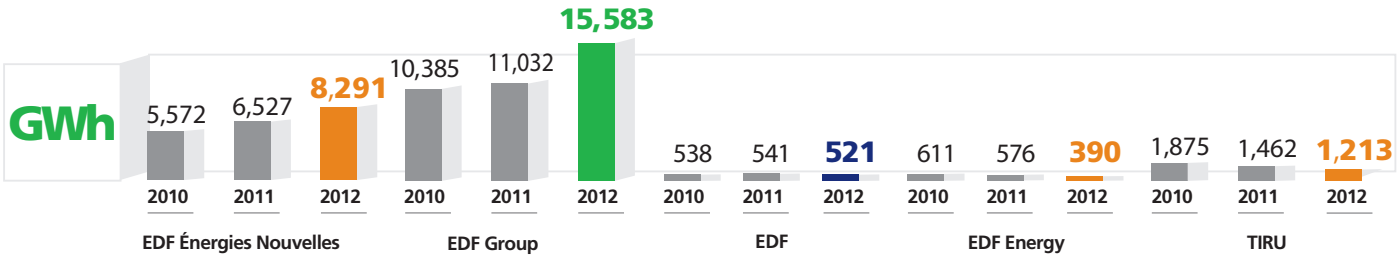
(1) Full consolidation of Edison data (excluding Edipower) in 2012 following completion of the Edison takeover agreement on February 15, 2012.

The proportion of electricity and heat generated from renewable sources within the Group rose 2.3 points, due mainly to the 23% increase in hydropower in France compared with 2011, when there was a severe drought.

Main developments in 2012

Hydro power	■ Increase in power output of Serre-Ponçon (+55 MW) and La Bathie (+45 MW) dams in France
Onshore wind power	■ Commissioning of three large wind farms in the United States: Shiloh III (102.5 MW) and Pacific Wind (140 MW) in California, and Spearville 3 (100.8 MW) in Kansas by EDF Énergies Nouvelles ■ Commissioning of first wind farm (80 MW) of EDF Énergies Nouvelles in Canada ■ Commissioning of Linowo wind farm (48 MW) in Poland by EDF Énergies Nouvelles ■ Commissioning of Green Rigg wind farm (36 MW) in the United Kingdom by EDF Energy Renewables ■ Acquisition by EDF Luminus of Ciney wind farm (10 MW)
Offshore wind power	■ Field tests of tidal turbine demonstrator off the coast of Paimpol-Bréhat in Brittany (October 2011 to January 2012); after some technical adjustments, further testing validated the changes made
Solar power	■ Commissioning by EDF Énergies Nouvelles of three large solar power farms in France: Toul-Rosières (115 MWc), Crucey (60 MWc) and Massangis (56 MWc)

Quantity of electricity and heat from renewable energy resources excluding hydro



Electricity and heat generated from renewable sources other than hydro continues to increase across the Group, rising 41% between 2011 and 2012, compared with a 6% increase between 2010 and 2011.

This growth is attributed mainly to a 36% increase in wind power (more than 2 TWh) and 35% in solar power, while biogas doubled to 1.7 TWh.

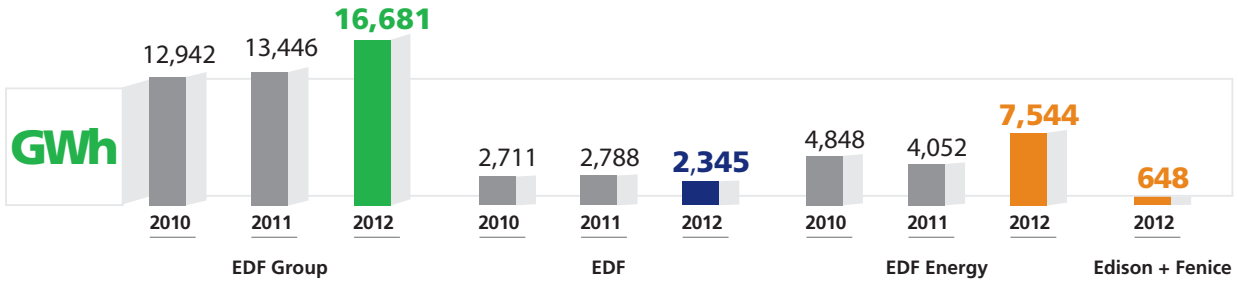
Generation by renewable source(1)

(in GWh)	**2012**	2011
Wind	8,533	6,272
Solar (photovoltaic)	483	357
Biomass (electricity)	2,840	2,333
Biomass (heat)	3,224	1,543
Tidal power	503	527

(1) Consolidated data.

Green electricity sales to end-customers

These are sales of electricity from a renewable source, excluding pumping energy for electricity from hydro facilities, which are certified (RECs) by an independent regulator.



Greenhouse gas emissions (GHG)

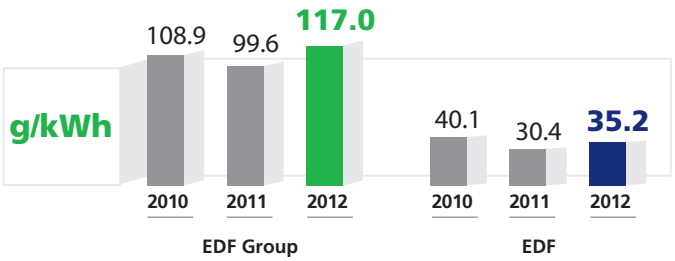
Apart from carbon dioxide (CO_2), the main greenhouse gas, fossil-fired power plants (coal, fuel oil and gas-fired) also release sulphur dioxide (SO_2), nitrogen oxides (NO_x) and sulphur hexafluoride (SF_6) into the atmosphere.

EDF is exploring several ways of reducing its greenhouse gas emissions, and maintaining them at one of the lowest levels in Europe:

- in the short term, by optimizing its existing plants to improve operating performance;
- in the longer term, by upgrading generations facilities, including improvement programs for power plants (combustion turbines and closed-cycle gas turbines), safeguarding hydro power potential, developing renewable energies and decommissioning the most highly polluting facilities.

Europe's leading emitter by volume, the EDF Group released a total of 79,803 million tonnes of CO_2 worldwide in 2012. **In France**, EDF is one of the largest industrial CO_2 emitters, producing 16,409 million tonnes, despite the fact that over 96% of its electricity generation emits no CO_2, thereby keeping its specific emission rate at 35.2 g of CO_2 eq/kWh.

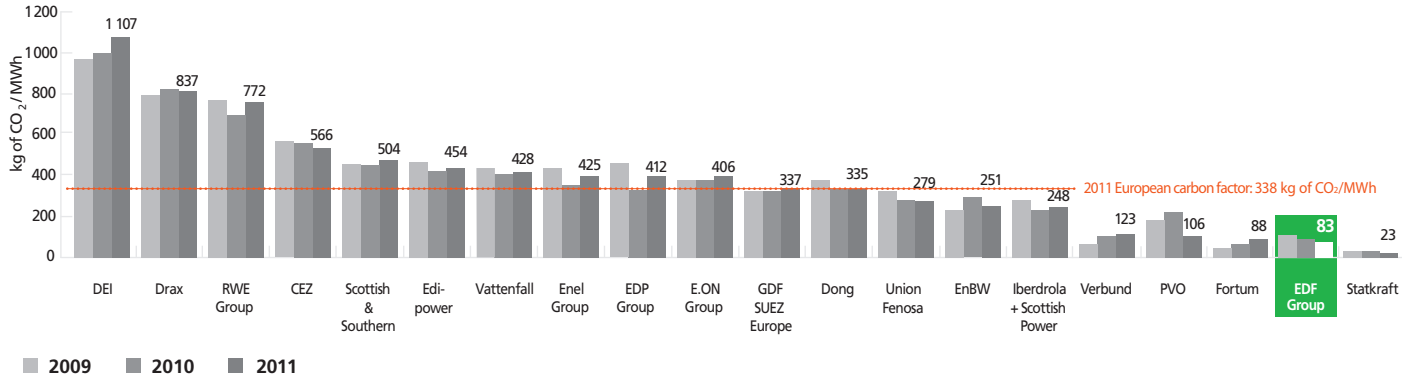
CO_2 emissions due to electricity and heat generation



The 18% increase in specific emissions and 13% increase in absolute emissions of CO_2 are due, both at Group level and in France, to higher volumes generated by fossil-fired plants and a fall in nuclear generation.

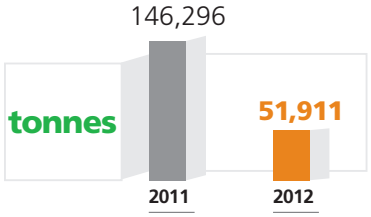
2011 carbon factor of Europe's largest electricity companies

Due to its high generation capacity and its predominantly nuclear energy source (producing low CO_2 emissions), the EDF Group contributes to a very significant extent to maintaining Europe's average emission rate at a relatively low level (excluding EDF, the carbon factor amounted to 435 kg CO_2/MWh in 2011, against 429 in 2010).



Source: PricewaterhouseCoopers November 2012 study "Climate Change and Electricity, the European carbon factor: Comparison of CO_2 emissions of Europe's leading electricity utilities"

CO_2 emissions associated with Edison oil and gas activities in Italy



The reduction in CO_2 emissions is due to the fall in Edison's oil and gas business in Italy.

Assessment of EDF's greenhouse gas emissions

Each year, EDF reports on the direct CO_2 emissions of its power plants.

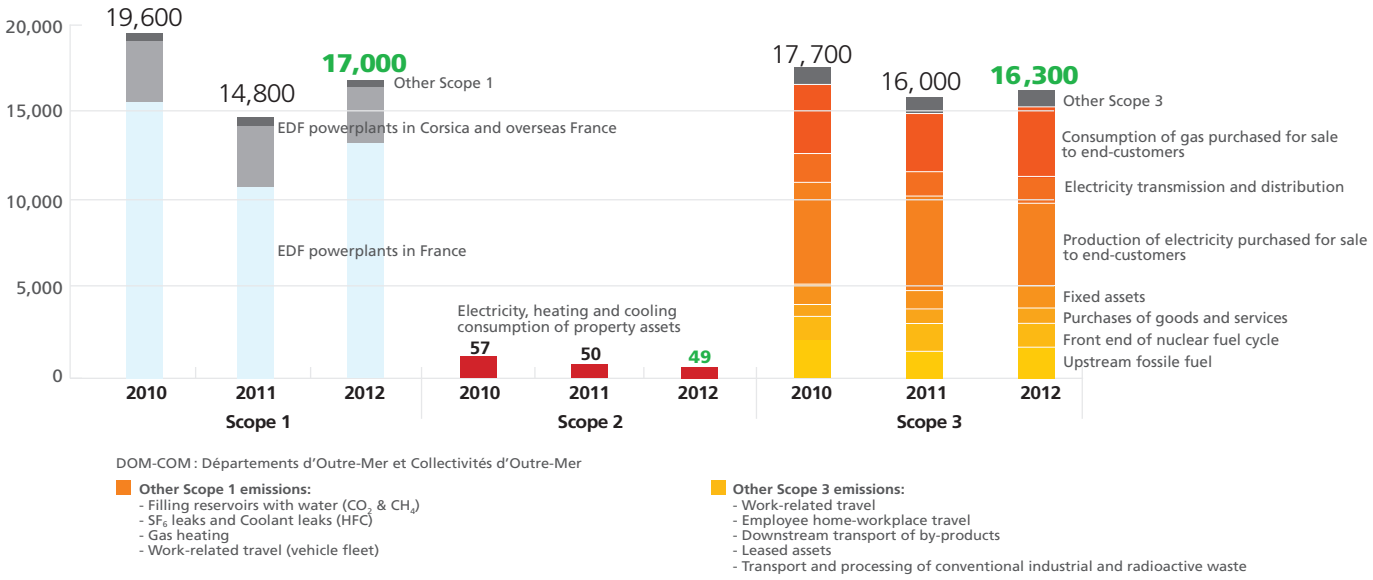
In 2012, EDF published its second assessment of greenhouse gas emissions (GHG), including indirect emissions, thus exceeding its legal obligations under Article 75 of the Grenelle 2 Environment law.

The assessment covers all EDF's business activities in continental France and the French island energy systems (IES).

The analysis focused on Scopes 1, 2 and 3 of the GHG Protocol , covering the six greenhouse gases listed in the Kyoto Protocol (CO_2, CH_4, N_2O, HFC, PFC, SF_6) and emissions associated with activities ranging from the production of fuel to the office duties of employees. The data is presented as CO_2 equivalent, the other gases being converted based on their global warming potential (GWP).

Detailed informations on the application at EDF of the GHG Protocol methodology are available on the edf.com website.

GHG assessment 2010-2012



DOM-COM : Départements d'Outre-Mer et Collectivités d'Outre-Mer

Other Scope 1 emissions:
- Filling reservoirs with water (CO_2 & CH_4)
- SF_6 leaks and Coolant leaks (HFC)
- Gas heating
- Work-related travel (vehicle fleet)

Other Scope 3 emissions:
- Work-related travel
- Employee home-workplace travel
- Downstream transport of by-products
- Leased assets
- Transport and processing of conventional industrial and radioactive waste

Change between 2011 and 2012

The change in GHG emissions between 2010 and 2012 correlates with weather conditions in continental France: 2010 in particular and 2012 to a lesser extent were colder than usual, while 2012 was especially mild.

The 23% increase in direct emissions between 2011 and 2012 is attributable to the fact that 2012 was colder than 2011, leading to greater use of fossil-fired plants.

Emissions from IES were, however, down 10% in 2012 due to higher hydro generation.

Emissions related to the production of nuclear fuel decreased 9% because nuclear plants were used less than the previous year.

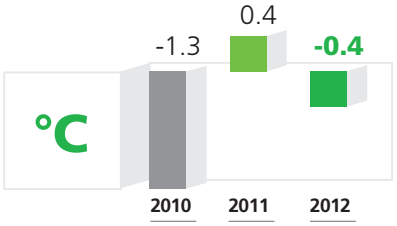
The increase in emissions related to the consumption by end-customers of gas sold (downstream Scope 3) and electricity consumed by EDF (Scope 2) to heat its premises was due to the colder weather in 2012. However, the latter's impact was limited as a result of significant efforts made to improve the energy efficiency of the company's buildings.

Purchase obligations for cogeneration decreased, leading to a reduction in associated emissions; purchase obligations for renewable energy increased but without generating any GHG emissions.

Emissions associated with fixed assets were up slightly due mainly to new facilities coming into service.

In respect of gases other than CO_2, the only significant change was in the leak rate of SF_6, which EDF continued to try and reduce in 2012.

Difference compared with normal temperatures – EDF, continental France



Source: OSGE - EDF

1. *The Greenhouse Gas Protocol (GHG Protocol) is the most widely used international tool for accounting for greenhouse gas emissions. Initiated in 1998 by the World Resource Institute (WRI) and World Business Council for Sustainable Development (WBCSD), it was developed in partnership with companies, non-profits and governments. It provides resources, tools and data for calculating the carbon footprint.*

EDF sources of GHG Protocol emissions

Scope 1	Direct emissions ■ Fixed combustion facilities: – CO_2, CH_4 and N_2O emissions from fossil-fired plants – Consumption of fossil fuels to heat business premises ■ Mobile combustion facilities: – Fuel consumption of vehicle fleet. ■ Fugitive emissions: – Fugitive emissions from reservoirs; – Fugitive emissions of SF_6 and HFC.
Scope 2	**Indirect** emissions associated with the production of electricity, steam or refrigeration imported or purchased by EDF for its own activities ■ Consumption of electricity for own use in office buildings and data centers; ■ Consumption of heat and cold for own use.
Scope 3	**Indirect** emissions resulting from EDF's activities but not included in Scopes 1 and 2 ■ Purchases of goods and services; ■ Front end of fuel cycle: extraction, refining/enrichment, transport; ■ Amortization of emissions associated with the manufacture/construction of fixed assets (power plants, IES networks, buildings, vehicles); ■ Production of electricity purchased for sale to end-customers; ■ Electricity transmission and distribution; ■ Consumption of gas purchased for sale to end-customers; ■ Other: waste management, employee travel, leased assets, downstream transport of by-products.

Direct emissions from power plants (Scope 1) remain the most significant source of greenhouse gases, with a substantial proportion emitted by the IES.

Scope 2 emissions, corresponding to electricity and heating purchases for EDF's own requirements, are very limited.

Emissions associated with electricity generation under purchase obligations, mainly for cogeneration, are the main source of Scope 3 emissions, although EDF has no way of reducing them. Other emissions are related to upstream activities in the fossil fuel supply chain and in the nuclear fuel cycle (extraction, transport, enrichment, etc.), the purchases of goods and services, EDF's fixed assets, the emissions from which are softened each year in line with their accounting depreciation and amortization, the transmission and distribution of electricity, and to the consumption of gas sold to end-customers[2]. Emissions associated with employees' office duties (administrative buildings, employee travel, etc.) are very low in comparison with other sources.

Furthermore, apart from CO_2, EDF's other main emissions, in small quantities, involve CH_4 from water stored in hydro reservoirs and SF_6 from transformers.

Monitoring our emissions

This assessment serves to gain a better understanding of EDF's environmental impact beyond that of its direct electricity generation and helps to fine-tune action plans to reduce both direct and indirect emissions.

For EDF, tackling climate change is the prime objective of its environmental policy and the Group aims to reduce its CO_2 emissions in continental France to a level without equal among major European companies:

- halving direct specific emissions produced by its generation facilities between 1990 and 2020 to reach 30g of CO_2/KWh in continental France;
- reducing the overall volume of its direct emissions by 30% over the same period;
- reducing specific CO_2 emissions between 2005 and 2020 from facilities in Corsica and overseas France operated by EDF.

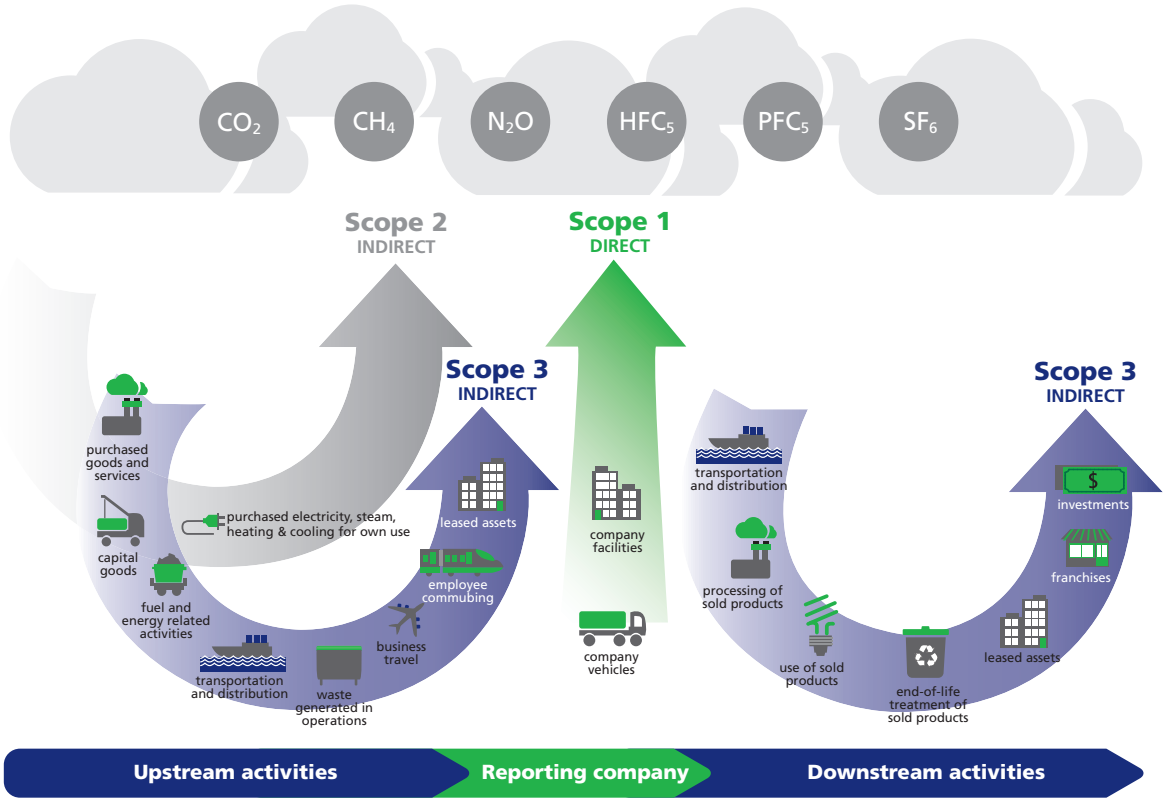
To reach these targets, EDF is relying particularly on the following three lines of action:

- continuing improvements in the availability of its nuclear plants;
- modernizing its fossil-fired plants, thus reducing CO_2 emissions per kWh generated (replacement of the oldest coal-fired units by high-yield combined cycle gas turbines at Blénod and Martigues);
- reinforcing hydropower generation potential (through new projects like Romanche-Gavet or upgrades to existing projects) and developing other renewable energies.

EDF is also looking at ways to reduce its indirect emissions, for example by entering into commitments to reduce the carbon footprint of its commercial properties through campaigns to raise environmental awareness among its employees and suppliers. In addition, the Group helps its customers to reduce their emissions by offering advice on energy savings, as well as eco-efficient products and services.

1. *The change in the Scope 2 total for 2010 and 2011 compared with the figures published in the 2012 report is due to a change in method: the adjustment for seasonal variations has been ended.*
2. *Emissions associated with the combustion of gas sold to our customers were not included in the report published in 2012.*

Overview of GHG Protocol Scopes and emissions across the value chain:

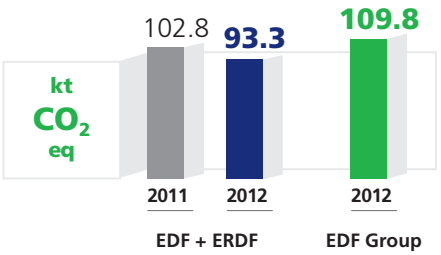


SF_6 emissions stemming from electricity transmission and distribution activities

Sulphur hexafluoride (SF_6) is a colourless, odorless, non-toxic and non-flammtable gas. It is an excellent insulator for electrical equipment, widely used as a result for the high- and medium-voltage circuit breakers of transmission and distribution networks.

The gas is found in circuit breakers and shielded (metal-clad) substations in large fossil-fired and hydro plants.

SF_6 is a potent greenhouse gas. Its global warming potential (GWP) is 22,800 (1 tonne of SF_6 released into the atmosphere is equivalent to 22,800 tonnes of CO_2).



SF_6 emissions in France (EDF & ERDF) declined 9% between 2011 and 2012. As a result of its modernization and detection effort, EDF achieved an 11% decrease despite an incident in January 2012 at the Saint-Guillerme hydro facility.

EDF published its SF_6 emissions at **Group** level for the first time in **2012**.

Aerosol precursors

Apart from greenhouse gases, human activities also emit aerosols and aerosol precursors.

Aerosol precursors are gaseous substances that, as a result of various physical or chemical reactions, may lead to the formation of aerosols.

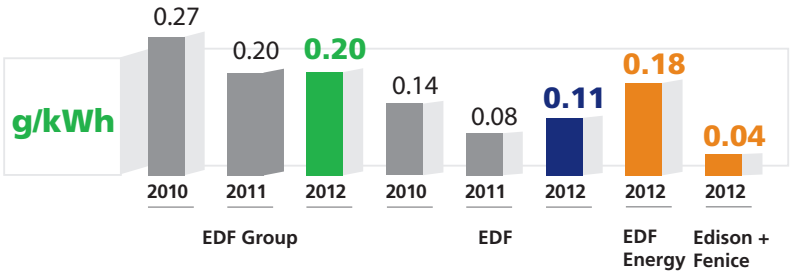
Aerosol precursors include:

- sulphur dioxide (SO_2), a combustion pollutant produced by the burning of any product containing sulphur, and notably coal and oil;
- to a lesser extent, nitrogen oxides (NO_x).

EDF's efforts in this area are in keeping with the limits set forth in the EU Directive on National Emission Ceilings (2001/81/EC), which established emission ceilings effective from 2010 for the following pollutants in each Member State: SO_2, NO_x, VOCs (volatile organic compounds) and NH_3 (ammonia).

EDF's activities in continental France and Corsica account for less than 5% (3.03%) of the national emission ceiling for NO_x (810 kt) and less than 10% (7.65%) of the national emission ceiling for SO_2 (375 kt).

Acidification: SO_2 emissions due to electricity and heat generation[1]

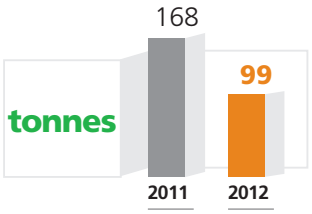


Following a sharp decline in SO_2 emissions in 2011, due mainly to the entry into service that year of a desulfurization system at the Laibin coal-fired power plant in China, the Group maintained its SO_2 emissions at their 2011 level.

The 2% decrease (137.8 kilotonnes) in absolute emissions at Group level was due mainly to a significant reduction in Dalkia's emissions after that company aligned it calculation methods (conversion factor) with those used by the Group.

In continental France, the sharp increase in SO_2 emissions (up 37% compared with 2011) was due to a mechanical effect associated with the increase in fossil-fired generation.

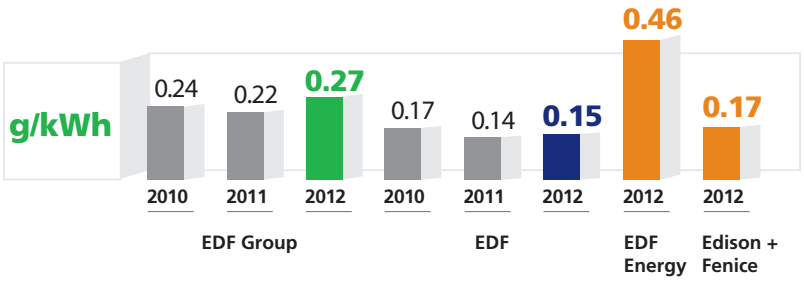
SO_x emissions associated with Edison oil and gas activities in Italy



The reduction in SO_x emissions is due to the fall in Edison's oil and gas business in Italy.

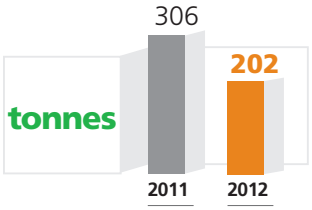
1. *Publication for the first time in 2012 of the consolidated data of EDF Energy, Edison and EDF Fenice.*

Nitrification: NO_x emissions due to electricity and heat generation[1]



At Group level, the increase in NOx emissions correlates with greater fossil-fired generation in the United Kingdom and France, despite the start-up of low NO_x burners at the Cordemais and Porcheville 3 power plants in France.

NO_x emissions associated with Edison oil and gas activities in Italy



The reduction in NO_x emissions is due to the fall in Edison's oil and gas business in Italy.

1. *Publication for the first time in 2012 of the consolidated data of EDF Energy, Edison and EDF Fenice.*

Radioactive emissions

Nuclear power plants do not release CO_2 (i.e. nuclear-based power generation does not contribute to the greenhouse effect), SO_2 or NO_x into the atmosphere. However, they do release radioactive effluents into the **air and water**.

For EDF in France, the environmental control systems monitoring radioactive emissions on a regular basis involve between 15,000 and 20,000 annual measurements for each nuclear power plant. Measurements are made in the terrestrial ecosystem and in the ambient air, as well as in ground and surface waters receiving liquid effluents and in underground water.

This monitoring program meets regulatory requirements and is subject to the prior approval of the *Autorité de Sûreté Nucléaire* (ASN), France's nuclear safety authority. In order to join the *Réseau National des Mesures de la Radioactivité de l'Environnement* (RNM), the French national network of environmental radioactivity measurement participants, set up by the *Institut de Radioprotection et de Sûreté Nucléaire* (IRSN), France's national institute for radiological protection and nuclear safety, EDF requested accreditation for its laboratories, which was obtained by decision of the ASN in June 2009.

In order to minimize the impact on the environment, EDF has implemented a proactive approach to the treatment of its radioactive effluents always with the aim of reducing discharges of radioactive waste to a value as low as reasonably practicable (ALARP).

Atmospheric emissions

EDF	Unit	2012	2011	2010
Carbon 14	TBq* per reactor	0.176	0.174	0.170
Tritium**	TBq* per reactor	0.64	0.65	0.55

EDF ENERGY	Unit	2012	2011	2010
Carbon 14: AGR (1)	TBq* per reactor	0.7	0.68	0.61
Carbon 14: PWR (2)	TBq* per reactor	0.3	0.3	0.13
Tritium**: AGR (1)	TBq* per reactor	0.68	0.8	0.92
Tritium**: PWR (2)	TBq* per reactor	0.8	0.7	0.74

(1) Advanced Gas-cooled Reactor – nuclear reactor developed in Great-Britain.
(2) Pressurised Water Reactor – most common nuclear in the world.

CENG (Constellation Energy Nuclear Group)	Unit	2012	2011	2010
Carbon 14	TBq* per reactor	0.33	0.34	0.69
Tritium**	TBq* per reactor	1.38	1.40	1.41

* *The radioactivity of a substance is measured in becquerels (Bq, the SI unit of radioactivity, equivalent to 1 nuclear transformation per second). This unit represents levels that are so low that multiples are normally used: GBq (gigabecquerel) or TBq (terabecquerel).*

** *Tritium, a hydrogen isotope, has a low level of radioactivity and is produced in the primary circuit coolant of nuclear reactors. It exists naturally in small doses in sea and rainwater.*

The increase since 2009 in EDF's tritium emissions to air is the result of modifications made to sampling and measurement methods as well as the configuration of ventilation systems at facilities. These modifications were completed in 2010. Emissions reported in respect of 2011 now serve as the new benchmark.

Liquid effluent emissions

Between 1999 and 2011, while obtaining results well below regulatory limits, EDF cut its radioactive liquid effluents by a factor of four.

EDF	Unit	2012	2011	2010
Tritium	TBq* per reactor	20.47	18.07	19.10
Carbone 14	GBq* per reactor	13.19	13.06	12.60

EDF ENERGY	Unit	2012	2011	2010
Tritium: AGR	TBq* per reactor	135.7	124.5	107.8
Tritium: PWR	TBq* per reactor	44	46	25

CENG (Constellation Energy Nuclear Group)	Unit	2012	2011	2010
Tritium	TBq* per reactor	12.91	12	11.11

* *The radioactivity of a substance is measured in becquerels (Bq, the SI unit of radioactivity, equivalent to 1 nuclear transformation per second). This unit represents levels that are so low that multiples are normally used: GBq (gigabecquerel) or TBq (terabecquerel).*

Waste

Conventional industrial waste

Conventional industrial waste includes all non-radioactive waste produced and discharged by all EDF's generation facilities (thermal, hydro and nuclear) and research sites.

Fly ash and gypsum, which are fully recycled, are considered as by-products and are therefore not counted within the indicator "Conventional industrial waste".

Specific laws and regulations apply to radioactive waste.

The indicator "Conventional industrial waste recycled or transported for recycling" includes the following two types of waste:

- hazardous waste, defined as such by regulations if it has one or more of the following characteristics: explosive/oxidizing/ignitable, irritable/harmful/toxic, carcinogenic, corrosive, infectious, reprotoxic/mutagenic, ecotoxic);
- non-hazardous waste, which refers to inert waste and ordinary industrial waste (with collection and treatment processes similar to household waste).

This waste is recycled in two different ways:

- materials recovery: scrap iron and other metals, gravel and other aggregates;
- energy recovery: incineration of waste to produce energy (electricity or steam).

EDF Group	Unit	2012	2011	2010
Volume of conventional industrial waste recycled or transported for recycling	tonne	253,412	251,908	n.c.
Recycling rate for conventional industrial waste	%	65.6	n.c.	n.c.

n.c. : not communicated.

In France, EDF uses an in-house software tool developed to track waste removed from its sites, as well as all recovery and treatment processes. It is thus able to prepare an **annual review report** on all its conventional industrial waste. In recent years, due to the implementation of a new and far-reaching waste management policy by the Group, the recycling rate for all conventional waste resulting from electricity generation and engineering activities has seen significant improvements.

Moreover, since 2008, the incentive agreement for EDF employees has included criteria on the rate of recovery of waste on the **green list** (internal list of waste that can be upgraded considering the meshed network of facilities throughout France). In 2012, EDF's green list covered 149 categories of waste for a total of 240 classified wastes in the internal reference framework.

EDF	Unit	2012	2011	2010
Recycling rate for conventional industrial waste	%	86.8	85.1	79.6
Recycling rate for green list waste	%	93.8	92.1	92.8

Waste associated with oil and gas activities

EDISON	Unit	2012	2011
Hazardous waste	tonne	1,147	818
Non-hazardous waste	tonne	42,606	23,013
Recycled conventional industrial waste	tonne	20,806	6,672

Non-hazardous waste from drilling activities in central Italy (San Potito region) and from the gas distribution activities of the Edison DG subsidiary.

Radioactive waste

Radioactive waste is classified in different categories in accordance with regulations in specific countries depending on its nature, its level of radioactivity and the lifespan of the radionuclides it contains.

France

EDF	Unit	2012	2011	2010
Very low-level radioactive waste from decommissioning (VLLW)	tonne	2,528	634	1,369
Solid low- and intermediate-level short-lived radioactive waste (LILW-SL)	m^3/TWh	20.7	15.6	12.4
Solid intermediate- and high-level long-lived radioactive waste (IHLW-LL)	m^3/TWh	0.88	0.87	0.88
Evacuated spent nuclear fuel	tonne	1,075	1,199	1,140

The sharp increase in waste from decommissioning was due to the evacuation of earth from the canal at Brennilis (around 1,300 tonnes) and from two steam generators at the Chooz A power plant (about 230 tonnes).

The increase in LILW-SW is due solely to the conditioning and storage of low-level radioactive waste in drums following the temporary shutdown of the CENTRACO incineration plant after the accident on September 12, 2011 that affected one of its furnaces. Since that accident, most of the low-level radioactive waste that would previously have been incinerated has been sent directly to the storage facility in the Aube *département* in northeastern France.

Radioactive waste is classified into four categories (VLLW, LLW, ILW and HLW) and is said to be "long lived" if it contains a significant quantity of radionuclides with a half-life greater than 31 years:

Very low level (VLL)	**Very low-level radioactive waste (VLLW)** Surface repositories at the Aube VLLW storage facility	
Low level (LL)	**Low- and intermediate-level short-lived radioactive waste (LILW-SL)** Surface area repositories at the Aube LILW storage facility	**Low-level long-lived radioactive waste (LLW-LL)** Near-surface storage facility (between 15 and 200 meters below the surface) currently under review. Commissioning expected in 2020
Intermediate level (IL)		**Intermediate-level long-lived radioactive waste (ILW-LL)** Deep underground storage facilities (500 meters below the surface) currently under review. Commissioning expected in 2025
High level (HL)	**High-level radioactive waste (HLW)** Deep underground storage facilities (500 meters below the surface) currently under review. Commissioning expected in 2025	
	Short lived (SL) Half-life ≤ 30 years	**Long lived (LL)** Half-life > 31 years

Characterization of the waste produced by EDF

High-level long-lived radioactive waste (HLW-LL)	■ Waste resulting from processing, by vitrification, of spent fuel, corresponding to the operation of the former natural uranium graphite gas plants and to 40 years of operation of the current PWR plants
Intermediate-level long-lived radioactive waste (ILW-LL)	■ Mainly from spent fuel assemblies (hulls, fragments of cladding, endcaps, etc.) separated during the processing of spent fuel. Currently, such waste is compacted and encapsulated in stainless steel canisters ■ Other intermediate-level long-lived waste results from research and the fuel cycle industry
Low-level long-lived radioactive waste (LLW-LL)	■ Waste from the decommissioning of natural uranium graphite gas reactors (graphite, waste from processes)
Low- and intermediate-level short-lived radioactive waste (LILW-SL)	■ Waste from nuclear plants (gloves, filters, resins, etc.)
Very low-level radioactive waste (VLLW)	■ Waste with a radioactivity level close to naturally occurring radioactivity. It results primarily from the decommissioning of nuclear facilities and consisting mostly of construction debris (concrete, scrap metal, thermal insulation, piping, etc.)

United Kingdom

EDF ENERGY (existing nuclear, nuclear branch included in 2009)	Unit	2012	2011	2010
Evacuated uranium	tonne	216	210.7	131
Evacuated low-level radioactive waste	m^3	698	608	498
Intermediate-level radioactive waste generated	m^3	161	161	162

Radioactive waste is classified as high-, intermediate- or low-level waste (HLW, ILW and LLW respectively), with each type processed using different procedures.

High-level radioactive waste (HLW)	■ Waste from the reprocessing of nuclear fuel, stored in purpose-built facilities at the Sellafield site
Intermediate-level radioactive waste (ILW)	■ Waste stored at the nuclear plants in dedicated facilities, which are inspected regularly as part of the site's safety requirements. The monitoring of radioactive waste is carried out in the form of planned inspections as part of the plant's tentative work schedule and by staff working in these areas on a day-to-day basis ■ At present, no waste disposal program exists for the Group's operations in the United Kingdom
Low-level radioactive waste (LLW)	■ Waste stored at the nuclear plants in dedicated facilities until being prepared for shipment (for processing or disposal). These facilities are inspected and monitored on a regular basis ■ In 2010, EDF Energy created a program for the recycling of radioactive metals, which are decontaminated and then recycled at 95%, the remainder being sent out for final disposal. In 2010, three EDF Energy nuclear plants participated in this program

United States

Constellation Energy Nuclear Group (CENG)*	Unit	2012	2011	2010
Delivered nuclear fuel	tonne	46	48	34
Evacuated solid low- and intermediate-level radioactive waste	m^3	2,419	1,287	735

** Data consolidated according to the percentage ownership in the subsidiary.*

Following the prohibition of spent fuel reprocessing in 1977 by the US federal government, the Nuclear Waste Policy Act (NWPA) established in 1982 a timetable and procedures for the building of repositories, under the aegis of the Department of Energy (DOE), with the federal government taking delivery of the spent fuel and assuming responsibility for the permanent storage of high-level radioactive waste.

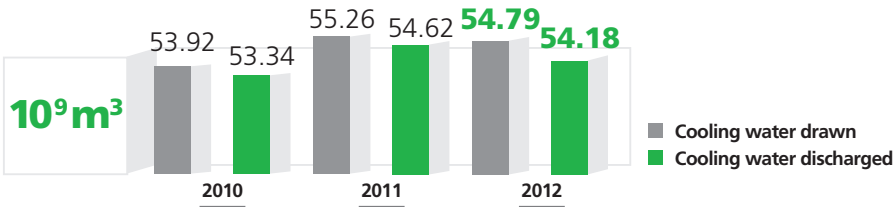
Under the NWPA, CENG entered into an agreement with the DOE calling for the payment of a fee in the amount of 0.1 cents per kWh of nuclear power to fund this permanent storage. These fees were paid until November 2009 by CEG, then by CENG, for the Calvert Cliffs, Nine Mile Point and R. E. Ginna nuclear power plants. The agreements provided for the receipt of spent fuel by the DOE no later than January 31, 1998. However, the DOE subsequently stated that it would not be able to meet its obligations until 2020 at the earliest.

In view of this circumstance, the Nuclear Regulatory Commission (NRC) then authorized operators, upon receipt of a formal request, to store their own waste on site. CENG thus built its first interim storage facility at Calvert Cliffs. Procedures have been initiated to renew the permit for this interim storage facility, currently valid until 2015, and to increase its storage capacity so as to meet the company's needs until 2036. Another interim storage facility is currently under construction at Nine Mile Point. The Ginna site's spent fuel storage facility began accepting fuel in August 2010.

Water resource management

Water is needed for generating power (for hydropower and for cooling fossil-fired plants) and for its supply chain (extraction and refining, fuel production (ethanol, hydrogen).

EDF Group: water drawn and discharged



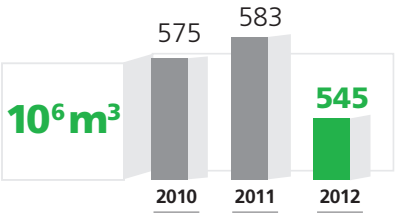
As a result of lower use of nuclear power plants in 2012, the volume of water drawn was down for the year, as was the quantity of water consumed.

The specific consumption of water was also down, by almost 7.4% to 0.933 L/kWh, due not only to the lower use of nuclear but also to the increase in fossil-fired generation (which consumes less water) and greater use of high-yield combined cycle gas turbines (which do not use water).

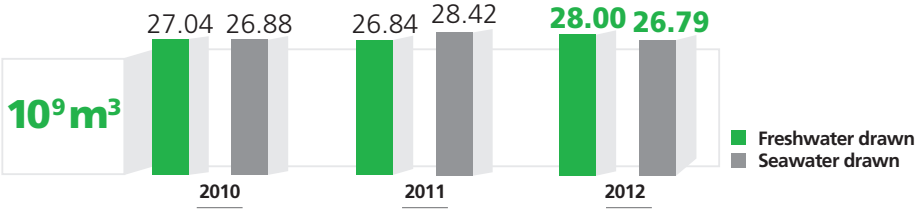
Specific water evaporated consumption per kWh of total energy generated by EDF Group fossil-fired and nuclear plants

In 2012, for the first time, EDF published this indicator.
Almost 99% of all water drawn is discharged back into the natural environment after it has been treated to meet quality and temperature standards stipulated in local regulations.

EDF Group: water evaporated



EDF Group: Freshwater as a proportion of cooling water drawn



Inputs and outputs of EDF's generation operations in France

This information is collated on the basis of the main inputs (raw materials, consumables, energy and water) and outputs (waste, by-products and emissions) of EDF's electricity generation process in France (nuclear, fossil-fired and hydro) and provides more detail as a complement to the Group's environmental indicators.

Raw materials, consumables, energy and cooling water linked to EDF's electricity **generation** in **France**

	Unit	**2012**	2011	2010
Raw materials				
Nuclear fuel load	tonne	1,096	1,205	1,138
Coal	tonne	5,022,491	4,215,737	5,555,692
Heavy fuel oil	tonne	1,017,112	951,851	1,424,359
Domestic fuel	tonne	285,879	367,058	434,275
Non-industrial gas	10^3 m^3	266,339	114,751	9,182
Consumables				
Oils	tonne	10,969	9,973	10,823
Limestone (including white lime in powder form)	tonne	36,882	48,985	40,134
Lime	tonne	1,345	1,165	1,338
Soda ash	tonne	2,288	2,176	2,319
Hydrochloric acid	tonne	3,156	3,407	3,598
Sulfuric acid	tonne	19,570	22,716	20,927
Flocculating agents	tonne	303	288	302
Hydrazine	tonne	95	106	90
Boron (boric acid)	tonne	257	265	242
Energy				
Internal consumption, pumping electricity	TWh	6.7	6.9	6.6
Internal consumption, electricity	TWh	22.5	22.8	22.6
Cooling water				
Cooling water drawn	10^9 m^3	40.7	40.0	39.8

The increase in consumption of coal, heavy fuel oil and gas is linked to the increase in fossil-fired generation.

Furthermore, the reduction in limestone consumption between 2011 and 2012 is associated with a 16% reduction in the use of 600 MW coal-fired plants (Cordemais 4 and 5 and Le Havre 4), which are the only plants to use limestone.

Waste, by-products and emissions linked to EDF's electricity generation in France

	Unit	2012	2011	2010
Electricity generation				
Gross electricity	TWh	489.0	495.0	498.9
Net electricity	TWh	466.5	472.2	476.3
Waste				
Hazardous conventional industrial waste	tonne	22,736	23,228	40,679
Non-hazardous conventional industrial waste(1)	tonne	166,950	194,820	198,422
Total conventional industrial waste	tonne	189,686	218,048	239,100
Of which conventional industrial waste recycled or transported for recycling (excluding fly ash and gypsum)	tonne	164,659	185,672	190,353
Solid low- and intermediate-level short-lived radioactive waste (excluding steam generators and vessel heads)	m^3/TWh	20.7	15.6	12.4
Solid high- and intermediate-level long-lived radioactive waste (estimated data)	m^3/TWh	0.88	0.87	0.88
Very low-level radioactive waste from decommissioning	tonne	2,528	634	1,369
By-products				
Evacuated spent nuclear fuel	tonne	1,075	1,199	1,140
Coal ash produced	tonne	523,503	467,500	611,043
Coal ash recycled	tonne	624,237	747,001	705,496
Gypsum produced (fully recycled)	tonne	59,298	82,541	60,144
Desulfurization sludge	tonne	4,988	3,998	3,627
Gas emissions				
Total CO_2	kt	16,538	14,380	19,147
SO_2	tonne	53,218	39,413	58,955
N_2O	kt CO_2 eq	70	65	79.2
NO_x	tonne	71,963	67,467	80,716
CH_4	kt CO_2 eq	7.7	7.1	8.0
SF_6	kt CO_2 eq	83.8	94.3	98.3
Dust	tonne	2,953	2,409	3,996
Cooling water				
Cooling water discharged	$10^9\,m^3$	40.1	39.5	39.3
Cooling water evaporated	$10^9\,m^3$	0.5	0.5	0.5
Radioactive emissions into air and water				
Air				
Noble gases	TBq/unit	0.51	0.7	0.6
Tritium	TBq/unit	0.64	0.65	0.55
Carbon 14	TBq/unit	0.176	0.17	0.17
Iodines	GBq/unit	0.028	0.025	0.020
Other fission and activation products	GBq/unit	0.002	0.002	0.003
Water				
Tritium	TBq/unit	20.47	18.07	19.1
Carbon 14	GBq/unit	13.19	13.06	12.6
Iodines	GBq/unit	0.005	0.005	0.006
Other radioelements	GBq/unit	0.225	0.22	0.30
Other emissions				
Cu (copper in water)	kg	40,607	42,761	43,754
Particulate matter (PM_{10})(2)	kg	1,745,229	1,020,342	2,198,218
Mercury(2)	kg	163.9	123.3	225.8

(1) Including desulfurization sludge.
(2) Data for EDF in continental France.

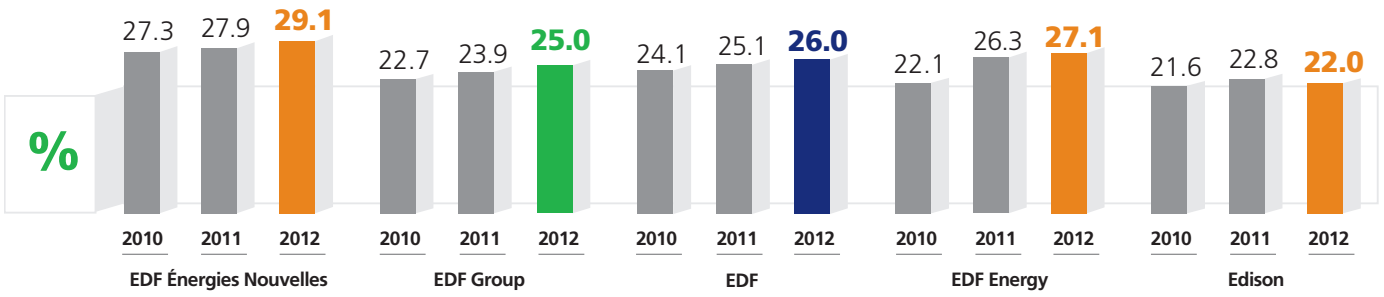
Workplace equality

EDF signed a third agreement in support of gender equality in the workplace on February 8, 2012.

Signatories undertake commitments on six themes: long-term change in mentalities, promotion of a fair gender mix in the workplace and in recruitment, equal career opportunities, equal training opportunities, consideration of working hours and conditions, and the work/life balance.

In addition, the new agreement includes a commitment to eliminate any pay gap between women and men in relation to both base salaries and performance-based remuneration, a goal that has been achieved consistently since 2010. This commitment was rewarded with the renewal in 2011 of the *"Égalité Professionnelle"* label first awarded to EDF in 2006 and renewed in 2008. Created in 2005 on the initiative of the French government and supported by trade union and employee representatives, the label recognizes any organization, no matter what its size or type, that strives constantly and effectively for equality and a fair gender mix in the workplace.

Percentage of women at managerial level

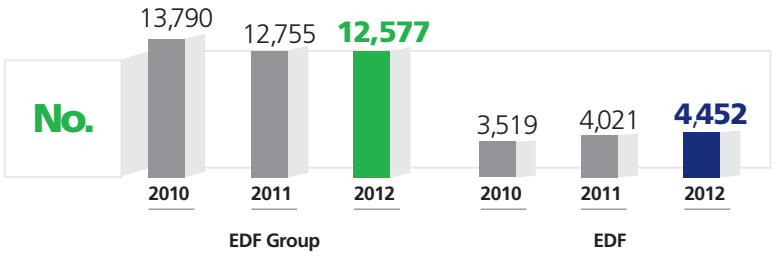


The percentage of women at managerial level continued to increase in 2012 in France and across the Group. Currently, one in four management positions within the EDF Group is held by a woman.

Recruitment

Recruitment and job mobility within the Group are essential drivers to ensure skill renewal and to support the Group's development projects in France and internationally. The edfjoinus.com website opened to job vacancies at EDF Energy (UK) in 2011 and EDF Luminus (Belgium) in 2012, and will soon be extended to those at Edison (Italy).

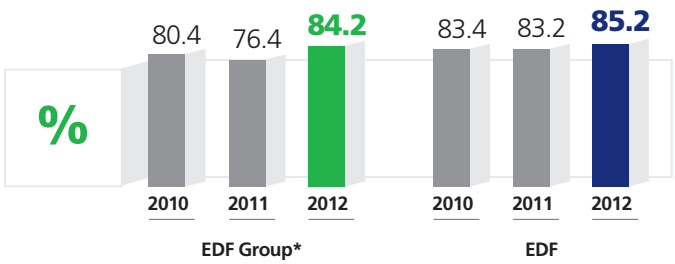
New hires



The EDF Group hired 12,577 new employees worldwide in 2012.

Training and work-study programs

Percentage of employees having benefited from training



The sharp increase between 2011 and 2012 reflects more accurate reporting of EDF Energy employees benefiting from training.

In France, EDF dedicated 9.7% of its total payroll to training.

During the year, more than 3,600 people in work-study programs joined the Group in France (EDF and ERDF) under apprenticeship or professional development contracts to prepare for qualifications ranging from a vocational certificate to a master's degree. At December 31, 2012, there were over 5,700 people on work-study programs, more than 5% of the Group's workforce in France.

* *Excl. ESTAG in 2011 and 2012. Excl. EnBW and ESTAG in 2010.*

Absenteeism

Since 2007, the only absences taken into account are those for illness, work- and travel-related injuries and miscellaneous (including unpaid leave and unjustified absences). Absences due to labor issues or union-related activities and pre-retirement leave are not included.

(in %)	**2012**	2011	2010
EDF	3.8	3.9	4.0

Over the past three years, absenteeism related to illness or accident at EDF has declined steadily from 9.2 days per employee and per year in 2011 to 9 days in 2012, compared with the national average of 10.1 days in 2011 and 14 days in 2012.

Disabilities

EDF is committed to recruiting people with disabilities: nearly 80 young people on work-study programs and 190 new hires joined EDF and ERDF in 2012.

Overall, the number of employees with disabilities increased.

Number of employees with disabilities

	2012	2011	2010
EDF Group	4,519	4,601	3,078
EDF	1,842	1,698	1,558

Number of new hires with disabilities

	2012	2011	2010
EDF	124	94	111

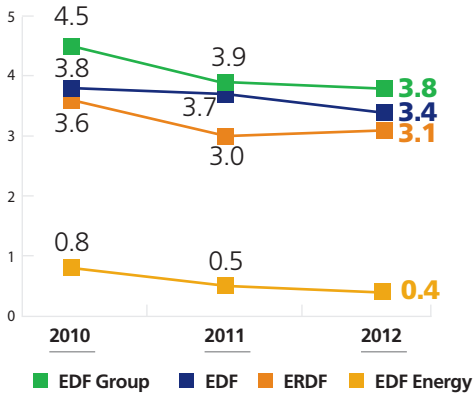
Safety indicators relating to accident prevention

EDF's health and safety policy, signed by the Chairman of the Board of Directors in March 2009, takes into account of changes in the professional environment, new ways of working and longer careers, all factors that have raised particular concerns requiring adjustments to EDF's policy in this area. The new policy grew out of broad stakeholder-based discussions involving management, experts, doctors and employee representatives. It is underpinned by respect for the individual, a value promoted as essential to the proper functioning of all organizations, and extends the application of the shared set of health and safety principles defined in 2008 to Group level.

Since 2008, six common health and safety indicators have been measured by all Group companies: (i) number of fatal accidents involving Group employees; (ii) number of fatal accidents involving subcontractors' employees; (iii) lost-time accident frequency rate for Group employees; (iv) lost-time accident severity rate for Group employees; (v) number of days of absenteeism per employee; and (vi) number of days of absence per employee due to illness.

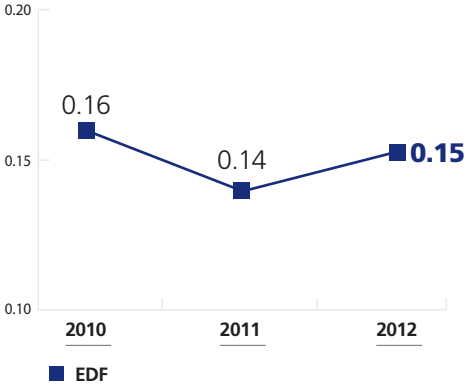
The results are presented to the Group's Executive Committee.

Injury frequency rate



At Group level, the **injury frequency rate declined** to 3.8 in 2012, compared with 4.5 in 2010. For more than four years, EDF and ERDF have demonstrated their ability to maintain their injury frequency rate below 4.0. Experience-sharing has been organized at Group level so that all entities can benefit from the momentum of some companies, such as EDF Energy, which have achieved spectacular improvements and are now on a par with other major corporations.

Injury severity rate



EDF's injury severity rate (number of calendar days lost due to accidents in the current year, including days lost following accidents in previous years, per thousand hours worked) was 0.15 in 2012, compared with 0.16 in 2010. **In 2011, a process was initiated at Group level to determine this rate in each consolidated subsidiary. The result was an overall accident severity rate of 0.16 in 2012.**

Number of workplace injuries involving at least one off work day

	2012	2011	2010
EDF Group	921	933	1,145
EDF	333	358	341

Number of fatal injuries

	2012	2011	2010
EDF Group employees	14	13	15
EDF employees	6	8	6
Employees of EDF Group subcontractors	7	14	11

There were 21 fatal work-related injuries in 2012 (14 Group employees and seven subcontractors' employees), compared with 27 in 2011.

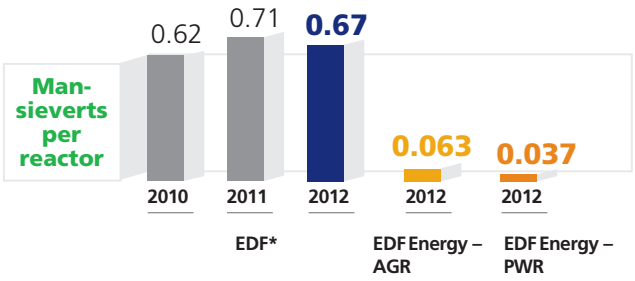
Having recorded an increase in the number of fatal injuries in 2010 and 2011 due to falls from a height, EDF set up a process for sharing information about the causes of such accidents across the Group in 2011. Its deployment, currently under way, should lead to improvements in this area, particularly with regards to the risks inherent in its core business. These include falls from a height, electrocution and road accidents.

In 2012, there was a decline in the number of deaths related to core business health and safety risks (four in 2012 compared with 15 in 2011) but an increase in the number of deaths due to other causes (sudden illness, work-related travel, etc.).

Radioprotection (occupational dosimetry)

By mobilizing all local players, EDF has achieved continuous improvement in the protection of employees against ionizing radiation.

Average collective dose



* *Average annual dose for all site workers, whether EDF or external company employees.*

The average annual collective dose for all site workers, whether EDF or external company employees, was halved in less than 10 years and is thus comparable with the average values recorded by operators of plants using the same technology (pressurized water reactors).

EDF is continuing to apply its ALARA (as low as reasonably achievable) approach to controlling ionizing radiation in view of upcoming major refits and the resulting volumes of work.

At the end of 2012, no site worker, whether an EDF or subcontractor employee, registered an individual dose of 16 mSv over a rolling 12-month period (3 workers in 2011, 2 in 2010).

The performance of EDF Energy sites in radioprotection and especially in terms of reducing exposure to radiation, continues to improve, mainly due to an optimized management of maintenance and repair.

The exceptional 2012 result of PWR sector is largely due to the lack of refueling outage and maintenance of the Sizewell site.

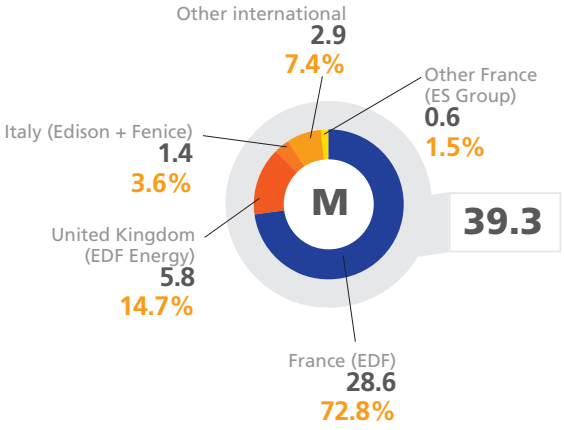
Tackling fuel poverty

According to recent statistics, 3.4 million households (13% of the total) in France are affected by fuel poverty. In the United Kingdom, the number of households affected is estimated at 5.5 million, or 21% of the population[1].

Because electricity is an essential need, EDF established an official Group position on this issue in late 2010 to anticipate the problems faced by its most vulnerable customers and to help resolve them.

Against this backdrop, the **Group's corporate social responsibility policy** aims in particular to **tackle fuel poverty and promote access to energy,** as well as to **contribute to the social and economic development of areas** where the Group operates, especially by supporting employment and social integration.

Breakdown of EDF Group customers in 2012 (millions and %)



Improvements in social housing and social mediation are two priorities for the EDF Group.

Going beyond its regulatory obligations and in line with its sustainable development policy, EDF is expanding its partnership approach to combating fuel poverty in two areas.

Improving the energy efficiency of social housing

France

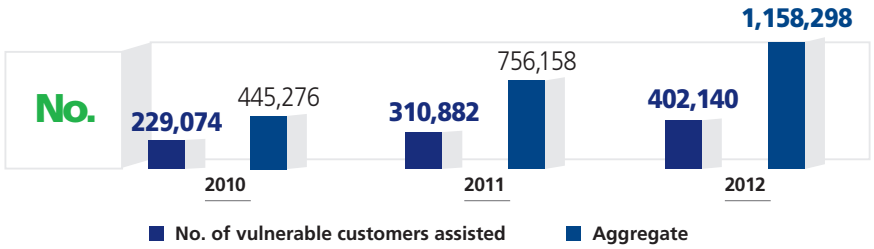
Fonds d'Aide à la Rénovation Thermique (funds to support household insulation)	EDF is a major partner in the *"Habiter Mieux"* (Live better) program administered by the *Agence Nationale pour l'Amélioration de l'Habitat* (the national agency for housing improvement), which aims to improve the heating performance of households living below the poverty line between 2011 and 2013. ■ **EDF contribution**: €49 million under the agreement signed with ANAH, covering improvements to 58,000 housing units ■ **2012 results**: 13,000 improvement projects started.
Partnership with the Abbé Pierre Foundation	As one of its **resolute actions** in this area, EDF provides financial and technical support for energy management initiatives led by civic organizations. Against this backdrop, EDF signed a partnership agreement with the Abbé Pierre Foundation in December 2012 aimed at building 2,000 housing units for underprivileged people over three years. This initiative follows on from the 2,000 roofs for 2,000 families program which, since 2009, has led to the construction or refurbishment of energy-efficient social housing units for 2,025 deprived families: ■ **EDF contribution:** €3 million

United Kingdom

Community Energy Saving Programme	EDF Energy contributed to the Community Energy Saving Programme (CESP) by setting up schemes to improve the energy efficiency of housing units. The program, which ran for three years, ended in 2012: ■ **EDF Energy contribution**: £89 million over three years for the benefit of 30,000 highly vulnerable households.
Energy Company Obligation (ECO)	Following on from the CESP, the ECO is a new program aimed at funding the installation of energy efficiency measures (insulation and heating) for low-income people. The aim is to reduce their heating bills and their CO_2 emissions: ■ **EDF Energy contribution**: £500 million in savings on heating bills and more than 3.5 million tonnes of CO_2 avoided over the period January 2013 to March 2015.
Warm Home Discount (WHD)	The WHD regulation is a four-year program launched in April 2011 requiring energy suppliers with more than 250,000 customers to assist people affected – or in danger of being affected – by energy poverty. This regulation replaces voluntary actions taken previously by suppliers. The total amount of this obligation amounted to £250 million in 2011/2012 and will increase to £310 million by 2014. ■ **EDF Energy contribution**: estimate of £26 million for the first year.

1. *Department of Energy and Climate Change: Annual report on fuel poverty statistics 2011.*

Provide advice on energy efficiency to 1 million vulnerable customers between 2009 and 2012



Partnership with social mediation organizations

Action implemented by EDF and monitored as part of its sustainable development policy:

France

Fonds de Solidarité Logement (housing solidarity fund)	EDF is the leading contributor (after local authorities) to this fund. The fund assists more than 200,000 households a year in settling their unpaid electricity bills: ■ **EDF contribution**: €23 million in 2012 and 2011; €22 million in 2010.
Contact points and social mediation organizations	EDF bolstered its presence in social mediation organizations, including the French network of local contact points for advising people about public services (PIMMS) and the *Agence Nationale d'Information sur le Logement* (French housing information agency), to bring it closer to its customers and advise them on their rights and energy usage, and to facilitate payment of their bills: ■ **2012 results**: EDF was involved in 170 local contact points (150 in 2011).

International

EDF Energy Trust Fund, United Kingdom	EDF Energy established the EDF Energy Trust Fund in 2003 with the aim of combating energy poverty. The fund, which was the first registered charity in this area to be founded by an energy supplier in the United Kingdom, helps vulnerable families pay their electricity and gas bills: ■ **EDF Energy results**: £1.9 million in 2012 for 2,493 households.
Hungary	Since February 2012, EDF Démász has been supporting an unpaid bills management program set up by the Hungarian branch of the Order of Malta for deprived families: ■ **EDF Démász contribution**: 100 million Hungarian forints.

Access to energy

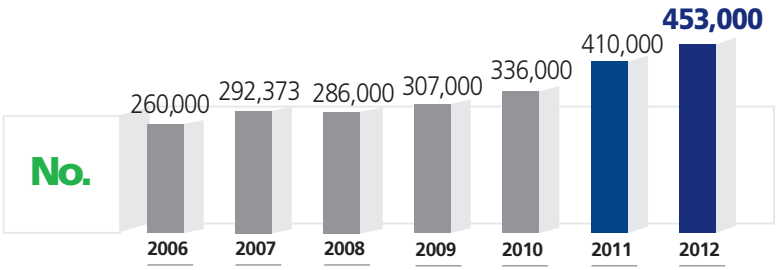
The strategy validated in 2009 for access to energy in developing countries has the following objectives:

- To participate in projects aimed at **supplying customers in rural areas with long-term access to energy;**
- To participate in the development of **technologies adapted to the local context** in rural areas far from the grid;
- To contribute to the **dissemination of know-how, skills and feedback to strengthen local players;**
- To accelerate the **learning process and promote the capacity to replicate projects**.

In rural areas that are often at a considerable distance from the grid, this program sets up energy service companies, providing energy for families, as well as economic and administrative activities such as schools and healthcare institutions (Morocco, Mali and South Africa).

Results as of December 31, 2012:

The total number of customers served by rural electrification programs initiated by EDF in Africa was 53,000, i.e. around 453,000 individuals, representing a 10% increase over the 2011 figure. The objective is to triple that number within five years. In rural areas of Africa that have no electricity networks, the Access program helps to create local companies providing energy services to families and communities.



No. of people benefiting from the Access program

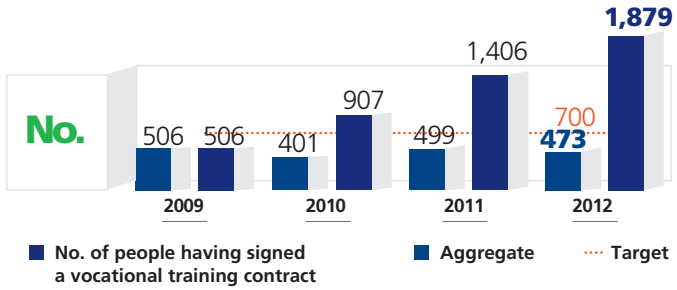
EDF devotes part of its Research & Development budget to these initiatives. In 2012, the R&D Division focused its research on the use of biofuels, optimization of solar power systems, use of low-energy bulbs such as LED, battery testing and an appropriate interface for customers benefiting from a special tariff. The total amount invested in this research amounted to €400,000.

Contributing to social and economic development

Social integration and employment

EDF's objective is to help 700 people who have been excluded from the workplace to find job opportunities, qualify for work-study programs and validate work experience in a promising sector by 2012 (1,000 with ERDF). EDF runs programs specifically designed to train young people for its businesses, especially those who have difficulty accessing work-study programs. The *Trait d'Union* initiative, for example, implemented by EDF's Sales Division in France, is a scheme to train young people to become customer advisors.

Employment/work-study qualification opportunities proposed by EDF



In 2012, EDF launched *"Une rivière, un territoire développement"*, a program that aims to provide expertise, support and financing to help local players create value and jobs by developing local skills and fostering innovative projects and business activities with a promising future in the water, energy and environment sectors. Selected projects are then financed from funds earmarked for the program, and local offices are created to assist with implementation. In this way, program agencies – EDF embassies – will gradually be set up in valleys where the company has hydro operations and will boost their regional development. The first such agency was opened in Rodez in southwestern France in 2012.
Annual budget allocated: €3 million.

EDF also contributes to the development of employment opportunities and furthering the social and professional integration of disadvantaged populations through *Fonds Agir pour l'emploi* (FAPE), a French foundation supporting job creation. Founded in 1995, FAPE reflects the solidarity between current and retired employees of both EDF and GDF Suez, and their trade unions, in favor of job seekers. Its actions serve the public interest and aim to allow those who have suffered from exclusion in the labor market to find jobs. FAPE awards grants to non-profit organizations and companies which, while ensuring the economic viability of projects, create jobs and contribute to social integration through employment.

In 2012, FAPE received donations from 11,592 current and former employees of the EDF Group, compared with 11,261 in 2011.

Fonds Agir pour l'emploi actions

	2012	2011	2010
No. of projects supported	205	160	160
No. of jobs created over a three-year period	773	769	582
No. of jobs consolidated	2,279	2,652	1,932
Subsidies granted (€)	1,696,980	1,572,419	1,420,572

Socially responsible purchasing

EDF promotes socially responsible purchasing in France through various channels. These include its three-year agreement for the integration of people with disabilities into the workforce (in relation to purchases from the protected sector and organizations where the majority of workers have disabilities – the annual target of €6 million of purchases was exceeded), as well as its socially responsible subcontracting agreement.
2012 results: €7.6 million of purchases from the protected sector (annual target is €6 million)

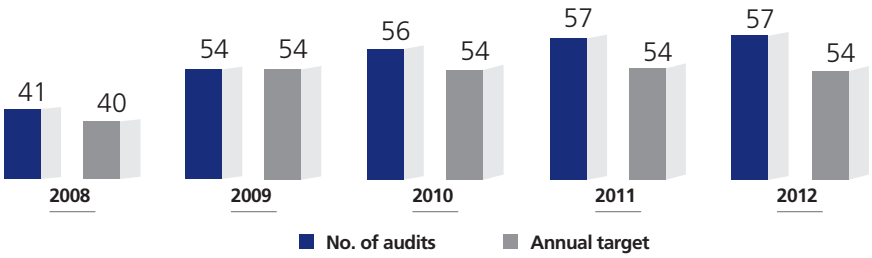
Subcontracting and responsible purchasing

EDF's socially responsible subcontracting agreement signed in October 2006 is one expression of the Group's CSR commitment. It has been renewed indefinitely, highlighting the intent to maintain industrial and service collaboration over the long term. This approach enables service providers to reinforce their activities and extend their capacity for sustainable development rather than merely signing short-term or one-off contracts.

The agreement's monitoring committee meets regularly to examine progress on the initiatives concerned.

Several types of actions are implemented across all EDF's business lines, such as carrying out sustainable development/corporate social responsibility audits at the premises of suppliers and service providers to ensure that commitments are being met.

No. of sustainable development/corporate social responsibility audits completed



CSR performance ratings

EDF submits its performance data in response to requests from CSR rating agencies and non-financial analysis departments working on behalf of investors. These assess and assign scores to companies based on their policies and results in the area of sustainable development according to their own methodologies. The agencies create and manage the indexes that are used by socially responsible investment (SRI) analysts to guide their investment choices.

The main agencies to which EDF submits its performance data are described below.

FTSE Group, Global Index Company (EIRIS)

In March 2012, following an in-depth independent analysis based on social, environmental and nuclear safety criteria, the FTSE4Good Policy Committee approve the inclusion of the EDF Group in the prestigious FTSE4Good Index. EDF is now one of the five nuclear operators worldwide certified as meeting the stringent criteria developed and overseen by the FTSE4Good Policy Committee.

Recognized the world over, the FTSE4Good Index Series was set up by FTSE Group with the aim of promoting investment in companies that meet international and ambitious standards of corporate environmental sustainability and social responsibility. Nuclear power companies must meet specific criteria for the operational safety of their facilities and for waste management.

Vigeo

Since 2005, EDF has been included in the ASPI Eurozone® Index, which lists the top 120 eurozone companies in the DJ Euro Stoxx in terms of sustainable development performance.

These companies are assessed and rated by French agency Vigeo according to a set of socially responsible criteria. Nine of the 34 listed companies in the oil and gas sector, including EDF, are in the ASPI Eurozone Index.

On November 1, 2012, Vigeo created three new indexes. EDF is in all three:

- Vigeo France 20: the 20 most advanced French companies;
- Vigeo Europe 120: the 120 most advanced European companies;
- Vigeo World 120: the 120 most advanced companies worldwide.

EDF was ranked ninth in its sector for 2012, with an overall score of 55/100.

Detailed rating information:

Performance areas	Rating KA/2008	Rating 06/2009	Rating 02/2011	**Rating 10/2012**
Human rights	++	++	+	+
Environment	=	+	+	=
Human resources	+	+	++	++
Business behavior	+	=	=	–
Corporate governance	=	=	=	=
Community involvement	++	++	++	++

++ the company is ranked as a leading performer in its sector
+ the company is ranked as an active performer in its sector
= the company is ranked as an average performer in its sector
– the company is ranked as a below average performer in its sector
–– the company is ranked as a poor performer in its sector

SAM

This agency analyzes the performance of companies on the basis of criteria in three areas (economic, social and environmental) and then awards a percentage score based on its findings.

SAM manages the Dow Jones Sustainability Indexes. Following an invitation from SAM, the EDF Group was assessed for the first time in 2009 (in respect of its 2008 results):

(in %)	2009	2010	2011	**2012**	Trend
EDF rating	56	61	59	66	↗
Average for the electricity sector	56	52	58	61	

Scores by area of criteria:

(in %)	2009	2010	2011	**2012**	Trend
Economic	57	56	57	71	↗
Environmental	59	60	56	60	↗
Social	50	68	65	65	→

CDP

The Carbon Disclosure Project (CDP) is an independent, non-profit organization that collates and maintains the largest database of corporate climate change information in the world.

With the support of its 772 signatory investors administering holding assets totaling $87,000 billion, CDP encourages nearly 6,000 major corporations around the world to submit information about their climate change and greenhouse gas emission policies. The global system enables corporations, investors, political leaders and purchasing managers to better understand the positioning of companies in tomorrow's low-carbon economy and sends out a strong signal inviting companies to be transparent regarding their climate change strategy.

In 2012, 81% (405) of the companies listed in the Global 500 responded to the CPD questionnaire. In France, 97% of companies listed in the CAC 40 responded, illustrating the importance major French companies attach to transparency and reducing CO_2 emissions.

EDF's scores

	2009	2010	2011	**2012**
Transparency score	71	78	62	87
Performance rating	-	B	D	B

Summary of environmental and social indicators

Environmental indicators

ECONOMIC INDICATORS	Unit	2012	2011	2010 (1)	Scope 2012	Scope 2011	Scope 2010	GRI ref.
Provisions for decommissioning and last core	€ millions	20,979	19,843	19,684	2	2	2	-
Provisions for nuclear fuel end-cycle	€ millions	19,525	18,830	18,020	1	2	2	-
Compensation paid or to be paid following legal decisions on environmental matters	€ thousands	6.9	0	8	1	1	1	-

ENVIRONMENTAL INDICATORS	Unit	2012	2011	2010 (1)	Scope 2012	Scope 2011	Scope 2010	GRI ref.
FUELS AND RAW MATERIALS								
TOTAL FUEL CONSUMPTION								
Nuclear reactor fuel	tonne	1,096	1,205	1,138	1	1	1	EN 1
Coal ✸	Kt	24,277	21,024	20,211	2	2	2	EN 1
Heavy fuel oil	Kt	1,098	1,170	1,625	2	2	2	EN 1
Domestic fuel	Kt	317	402	448	2	2	2	EN 1
Non-industrial gas	10^6 m³	9,290	6,859	8,072	2	2	2	EN 1
Industrial gas	10^6 m³	842	3,555	3,707	2	2	2	EN 1
WATER - TOTAL INPUT OF RAW MATERIALS FROM SOURCES OUTSIDE THE COMPANY								
Cooling water drawn ✸	10^9 m³	54.8	55.2	53.9	2	2	2	EN 8
of which, freshwater ✸	10^9 m³	28.0	26.8	n.c.	2	2	n.c.	EN 8
Cooling water discharged ✸	10^9 m³	54.2	54.6	53.3	2	2	2	EN 21
of which, freshwater ✸	10^9 m³	27.5	26.3	n.c.	2	2	n.c.	EN 21
AIR – GAS EMISSIONS								
Total CO_2 emissions ✸✸ (incl. facilities not subject to quotas)	Mt	79.8	70.5	75.7	2	2	2	EN 16
SO_2 emissions ✸	Kt	137.8	140.6	187.9	2	2	2	EN 20
NO_x emissions	Kt	182.2	157.0	167.6	2	2	2	EN 20
Dust	tonne	6,968	5,407	7,929	2	2	2	EN 20
CH_4 emissions	Kt CO_2 eq	40.5	32.2	41.6	2	2	2	EN 16
N_2O emissions	Kt CO_2 eq	329.8	254.7	287.9	2	2	2	EN 16
SF_6 emissions – EDF ✸	Kt CO_2 eq	83.8	94.3	98.3	1	1	1	EN 16
SF_6 emissions – EDF + ERDF ✸	Kt CO_2 eq	93.3	102.8	n.c.	1b	1b	n.c.	EN 16
SF_6 emissions – Group ✸	Kt CO_2 eq	109.8	n.c.	n.c.	2	n.c.	n.c.	EN 16
CONVENTIONAL WASTE								
Hazardous waste (2) ✸	tonne	64,598	60,956	40,679	2	2	1	EN 22
Non-hazardous waste (2) ✸	tonne	321,789	302,251	198,422	2	2	1	EN 22
Conventional industrial waste recycled or transported for recycling (2) ✸	tonne	253,412	251,908	190,353	2	2	1	EN 22
Ash produced	Kt	3,816	3,617	3,581	2	2	2	EN 22
ENERGY								
Renewable energies: electricity and heat generated from renewable sources (excl. hydro) ✸	GWh	15,583	11,032	10,385	2	2	2	EN 6
Direct energy consumption, by primary source								
Internal consumption, pumping electricity	TWh	6.7	6.9	6.6	1	1	1	EN 3
Internal consumption, electricity	TWh	22.4	22.8	22.6	1	1	1	EN 3
MANAGEMENT								
Environmental protection expenditure of which, net provisions	€ millions	3,465 2,465	2,800 1,765	2,579 1,712	1	1	1	EN 30
Environmental management (% of Group revenue covered by ISO 14001 certification)	%	98 (3)	79	n.c.	2	2	n.c.	

(1) Excl. EnBW, with the exception of economic indicators (2) Extended to Group scope in 2011 (3) Including companies not in the Group certificate.
GRI : Global Reporting Initiative. Scope 1: EDF SA (distribution activities transferred to subsidiary ERDF in 2008). Scope 1b: EDF SA + ERDF. Scope 1b: EDF SA + ERDF.
n.c. : not communicated.
✸ *2012 data verified by the Statutory Auditors with a view to providing a limited level of assurance*
✸✸ *2012 data verified by the Statutory Auditors with a view to providing a reasonable level of assurance*

NUCLEAR INDICATORS – EDF	Unit	2012	2011	2010	GRI ref.
Radioactive liquid effluents					
Tritium	TBq/reactor	20.47	18.07	19.1	EN 21
Carbon 14	GBq/reactor	13.19	13.06	12.6	EN 21
Radioactive atmospheric emissions					
Tritium	TBq/reactor	0.64	0.65	0.55	EN 20
Carbon 14	TBq/reactor	0.176	0.174	0.170	EN 20
Nuclear waste					
Very low-level radioactive waste from decommissioning ✸	tonne	2,528	634	1,369	EN 24
Solid low- and intermediate-level short-lived radioactive waste ✸	m³/TWh	20.7	15.6	12.4	EN 24
Solid intermediate- and high-level long-lived radioactive waste ✸	m³/TWh	0.88	0.87	0.88	EN 24
Evacuated spent nuclear fuel	tonne	1,075	1,199	1,140	EN 24

NUCLEAR INDICATORS – EDF ENERGY	Unit	2012	2011	2010	GRI ref.
Radioactive liquid effluents					
Tritium – AGR (1)	TBq/reactor	135.7	124.5	107.8	EN 21
Tritium – PWR (2)	TBq/reactor	44	46	25	EN 21
Radioactive atmospheric emissions					
Carbon 14 – AGR (1)	TBq/reactor	0.7	0.68	0.61	EN 20
Carbon 14 – PWR (2)	TBq/reactor	0.3	0.3	0.13	EN 20
Tritium – AGR (1)	TBq/reactor	0.68	0.8	0.92	EN 20
Tritium – PWR (2)	TBq/reactor	0.8	0.7	0.74	EN 20
Nuclear waste					
Evacuated uranium ✸	tonne	216	210.7	131	EN 24
Evacuated low-level radioactive waste ✸	m³	698	608	498	EN 24
Intermediate-level radioactive waste generated ✸	m³	161	161	162	EN 24

NUCLEAR INDICATORS – CONSTELLATION ENERGY NUCLEAR GROUP	Unit	2012	2011	2010	GRI ref.
Radioactive liquid effluents					
Tritium	TBq/reactor	12.91	12	11.11	EN 21
Radioactive atmospheric emissions					
Carbon 14	TBq/reactor	0.33	0.34	0.69	EN 20
Tritium	TBq/reactor	1.38	1.40	1.41	EN 20
Fuel (3)					
Delivered nuclear fuel ✸	tonne	46	48	34	EN 24
Nuclear waste (3)					
Evacuated solid low- and intermediate-level waste ✸	m³	2,419	1,287	735	EN 24

1. *Advanced gas-cooled reactor*
2. *Pressurized water reactor*
3. *Data consolidated according to the percentage ownership in the subsidiary*

n.c. : not communicated. GRI: Global Reporting Initiative

✸ *2012 data verified by the Statutory Auditors with a view to providing a limited level of assurance*

Social indicators

EDF GROUP INDICATORS	Unit	2012 (3)	2011 (4)	2010 (4)	GRI ref.
WORKFORCE AT DECEMBER 31, 2012 (1)					
EDF & ERDF	number	107,333	103,954	96,571	LA 1
TOTAL EDF Group EDF **	number	159,740	156,168	158,842	LA 1
Employees by age					
Under 25 years **	%	8	n.c.	n.c.	
From 25 to 35 years **	%	23	n.c.	n.c.	
From 36 to 45 years **	%	25	n.c.	n.c.	
From 46 to 55 years **	%	34	n.c.	n.c.	
56 years and over **	%	10	n.c.	n.c.	
Employees by geographical area (location of head office)					
France	number	129,328	n.c.	n.c.	
of which Dalkia	number	15,964	n.c.	n.c.	
United Kingdom	number	16,178	n.c.	n.c.	
Italy	number	5,210	n.c.	n.c.	
Rest of Europe	number	7,503	n.c.	n.c.	
Rest of the world	number	1,521	n.c.	n.c.	
Managers (as defined by French regulations) *	number	40,355	37,786	39,231	LA 1
Percentage of women at managerial level *	%	25.0	23.9	22.7	LA 13
Non-management employees *	number	119,385	118,382	119,611	LA 13
Gender equality					
Male workforce **	number	118,512	117,023	121,009	LA 13
Female workforce **	number	41,228	39,145	37,833	LA 13
Male executives *	number	30,286	28,753	30,306	LA 13
Female executives *	number	10,069	9,033	8,925	LA 13
HIRES/DEPARTURES					
Hires *	number	12,577	12,755	13,790	LA 2
Other arrivals (1) *	number	7,499	5,849	3,105	LA 2
Retirements/inactive employees *	number	4,185	4,200	4,708	LA 2
Resignations (2) *	number	2,355	2,761	2,929	LA 2
Redundancies, dismissals, employees made inactive *	number	1,739	1,689	1,924	LA 2
Other departures (1) *	number	9,304	9,398	10,457	LA 2
REMUNERATIONS					
Total gross remuneration	€ millions	11,624	10,802	n.c.	
Part-time employees *	number	14,690	15,296	17,719	LA 1
ABSENTEEISM					
Average number of days lost through illness or accident	number	9.0			
HEALTH AND SAFETY					
Fatal injuries *	number	14	13	15	LA 7
Injury frequency rate *		3.8	3.9	4.5	LA 7
Workplace accidents involving at least one lost day *	number	921	933	1,145	LA 7
Injury severity rate		0.16			

1. *Inclusions and exclusions from the scope are accounted for under "Other arrivals" and "Other departures" respectively*
2. *Special contracts (including work-study trainees) that reach termination are included in "Other departures" regardless of whether a job offer was made at the end of the contract. Departures during the trial period are included in "Other departures"*
3. *Incl. RTE*
4. *Excl. RTE under new workforce definition including special contracts (various employment measures), works doctors and employees seconded from external organizations*
   n.c. : not communicated

* *2012 data verified by the Statutory Auditors with a view to providing a limited level of assurance*

** *2012 data verified by the Statutory Auditors with a view to providing a reasonable level of assurance*

EDF GROUP INDICATORS	Unit	2012[4]	2011[5]	2010[5]	GRI ref.
EMPLOYEE RELATIONS					
Employees covered by collective bargaining agreements[1]	%	88	87	94	LA 4
TRAINING					
Hours of training provided	number	7,631,618			
Employees benefiting from training[2] ✸	number	131,311	118,930	127,332	LA 10
EMPLOYMENT AND INTEGRATION OF EMPLOYEES WITH DISABILITIES					
Employees with disabilities[3]	number	4,519	4,601	3,078	LA 13

1. *Excl. Dalkia International in 2010*
2. *Excl. ESTAG in 2010 and 2011*
3. *Declaration by EDF Energy compulsory*
   Information not communicated by CENG in 2010, 2011 or 2012 due to confidentiality.
   In 2010 and 2011, figure reported by Edison does not include subsidiary Abu Qir, which was consolidated in 2009
4. *Incl. RTE*
5. *Excl. RTE under new workforce definition including special contracts (various employment measures), works doctors and employees seconded from external organizations*

✸ *2012 data verified by the Statutory Auditors with a view to providing a limited level of assurance*

EDF INDICATORS	Unit	2012	2011	GRI ref.
WORKFORCE AT DECEMBER 31, 2012				
Employees covered by collective bargaining agreements	number	64,838	63,002	LA 1
Employees under unlimited-term contracts not covered by collective bargaining agreements	number	433	409	LA 1
Employees under fixed-term contracts not covered by collective bargaining agreements	number	3,851	3,773	LA 1
Total not covered by collective bargaining agreements	number	4,284	4,182	LA 1
Total workforce **	number	69,122	67,184	LA 1
Number of managers (as defined by French regulations) *	number	28,230	26,644	LA 1
Percentage of women at managerial level *	%	26.0	25.1	LA 13
Non-management employees *	number	40,892	40,540	LA 13
Technicians and supervisory staff	number	33,084	32,871	LA 13
Operatives	number	7,808	7,669	LA 13
GENDER EQUALITY				
Male workforce **	number	47,852	46,938	LA 13
Female workforce **	number	21,270	20,246	LA 13
Male executives *	number	20,884	19,944	LA 13
Female executives *	number	7,346	6,700	LA 13
HIRES/DEPARTURES				
Hires *	number	4,452	4,021	LA 2
Integration and rehiring *	number	261	251	LA 2
Other arrivals (1) *	number	3,194	2,818	LA 2
Retirements/inactive employees *	number	2,061	1,990	LA 2
Resignations *	number	114	123	LA 2
Redundancies, dismissals, employees made inactive *	number	6	14	LA 2
Death *	number	82	89	LA 2
Other departures (1) *	number	3,709	3,285	LA 2
OVERTIME				
Overtime worked	thousands	2,831	2,791	
OUTSIDE CONTRACTORS				
Temporary employees (monthly average)	number	1,837	1,187	LA 1
ORGANIZATION OF WORKING HOURS				
Full-time employees	number	60,612	58,157	LA 1
Part-time employees *	number	8,510	9,027	LA 1
Employees working shifts	number	6,882	6,808	LA 1
ABSENTEEISM				
Absenteeism *	%	3.8	3.9	LA 7
House of maternity or paternity leave/hours worked	%	0.7	0.7	LA 7
HEALTH AND SAFETY				
Work-related illnesses reported		13	11	
Fatal injuries *	number	6	8	LA 7
Injury frequency rate *		3.4	3.7	LA 7
Injury severity rate *		0.15	0.14	LA 7
Workplace accidents involving at least one lost day *	number	333	358	LA 7

1. Excluding arrivals and departures on seasonal short-term contracts

* *2012 data verified by the Statutory Auditors with a view to providing a limited level of assurance*

** *2012 data verified by the Statutory Auditors with a view to providing a reasonable level of assurance*

EDF INDICATORS	Unit	2012	2011	GRI ref.
REMUNERATION/SOCIAL SECURITY PAYMENTS/PROFIT-SHARING				
Main monthly remuneration				
Managers	€	4,308	4,248	EC 1
Technicians and supervisory staff	€	2,612	2,581	EC 1
Operatives	€	1,877	1,874	EC 1
Personnel costs	€ millions	6,113	5,784	EC 1
Average amount of profit-sharing per employee	€	1,820	1,583	EC 1
EMPLOYEE RELATIONS				
Collective bargaining agreements signed in France	number	8	11	HR 5
Employees covered by collective bargaining agreements[1]	%	94	94	LA 4
TRAINING				
Employees benefiting from training ✸	number	58,899	55,905	LA 10
EMPLOYMENT AND INTEGRATION OF EMPLOYEES WITH DISABILITIES				
Employees with disabilities ✸	number	1,842	1,698	LA 13
Employees with disabilities hired	number	124	94	LA 13
CHARITABLE WORKS				
Committee budgets (fulfilling 1% requirement)	€ millions	196	198	

1. *EDF SA's employees are not covered by a collective bargaining agreement in the French legal sense but by the* Statut des Industries Électriques et Gazières *(Electricity and Gas Industries statute)*

✸ *2012 data verified by the Statutory Auditors with a view to providing a limited level of assurance*

Reporting methodology adopted for social and environmental data in 2012

Reporting scope

The scope covered by the reporting procedure (economic, environmental and social indicators) corresponds to the EDF Group scope as defined by financial consolidation. More specifically, this scope encompasses the EDF parent company (Électricité de France) and its subsidiaries, whether fully integrated (in which case 100% of the values for social and environmental indicators are taken into account) or proportionally integrated. Data relating to companies accounted for by the equity method are not included.

The scope covered by the reporting process is defined on the basis of:

- the half-year consolidation scope provided by Corporate Finance;
- criteria linked to the relevance in terms of sustainable development of the activities of subsidiaries.

With regard to the environmental data, some of the subsidiaries included in the financial scope are not included in the sustainable development scope owing to their activities and/or relative unimportance with regard to environmental issues. The selection criteria are:

- industrial activities (generation, distribution and transmission) with significant environmental impact;
- entities acquired more than a year ago;
- entities that were still included in the scope of consolidation at December 31, 2012.

Every year the Sustainable Development Division surveys and/or makes proposals to the various branches and divisions, which constitute internal levels of validation, regarding the inclusion or exclusion of companies in the environmental consolidation scope. Any exclusion must be fully justified and documented.

With respect to social data, the following additional criteria apply:

- companies whose workforce is significant in terms of human resources (over 50);
- companies acquired over six months ago.

Consequently, the differences between the reporting scope for the social and environmental indicators are as follows:

- subsidiaries included in the reporting of the environmental indicators but not the social indicators: Dalkia Investissement (France), Figlec (China), Sloecentrale (Netherlands);
- subsidiaries included in the reporting of the social indicators but not the environmental indicators: Fahrenheit (France), EDF Trading (France), EDF Polska 1 (Poland), EDF Optima Solutions (France), EDF Paliwa (Poland).

Given the difficulty in collating the data, the reporting scope may vary according to the indicators. It is thus specified in the summary table for each indicator.

The main changes in scope in 2012 are:

- full consolidation of three subsidiaries outside France for the entire year (Zielona Gora, Kogeneracja and Edison), previously proportionately consolidated;
- inclusion in the HR reporting of two new subsidiaries with more than 50 employees: EDF Optimal Solutions and EDF Paliwa;
- reporting scope extended to the Polish and Spanish subsidiaries of Fenice for environmental data.

The main changes in scope in 2011 were:

- deconsolidation of RTE;
- full consolidation of subsidiaries Kogeneracja and Zielona Gora, previously proportionately consolidated;
- inclusion of subsidiary PEI for social data.

The main changes in scope in 2010 were:

- deconsolidation of ENBW (Germany);
- inclusion of new companies in the reporting scope: ESTAG, SPE, Constellation Energy Nuclear Group and Sloecentrale (the latter for environmental data only).

Entities included in the consolidation scope as of December 31, 2012 and in the sustainable development scope:

France:

Électricité de France (EDF parent company), ERDF.

Other activities (France):

Électricité de Strasbourg, TIRU, Socodei, EDF Énergies Nouvelles, Dalkia International and Dalkia Investissement.

United Kingdom:

EDF Energy (following consolidation of British Energy in January 2010).

Italy:

Edison and Fenice.

Other activities (international):

Ersa (Poland), ECK (Poland), Kogeneracja (Poland), ECW (Poland), Zielona Gora (Poland), EDF Démasz (Hungary), Be Zrt (Hungary), SSE (Slovakia), Constellation Energy Nuclear Group (USA), UTE Norte Fluminense (Brazil), Figlec (China), Meco (Vietnam), EDF Belgium (Belgium), EDF Luminus (formerly SPE, Belgium), Estag (Austria), Sloecentrale (Netherlands).

Details on social indicators

The social data in this report was established on the basis of a glossary of definitions that was updated in 2012.

In 2012, new indicators are included in application of Article R 225-102-1 of the French Code of Commerce (Grenelle 2 Environment law). The new data is:

- breakdown of Group workforce by age and by geographical area (location of each subsidiary's head office);
- total gross remuneration for the Group;
- proportion of employees eligible for variable remuneration;
- injury severity rate (number of days lost following a workplace accident x 1,000/number of hours worked);
- average number of days lost through illness or accident) per employee;
- for EDF, number of work-related illnesses reported;
- number of hours of training provided.

Since 2011, the population concerned by data collection comprises all employees whose contract with a Group company has not been suspended.

For EDF

Since 2007, the calculation of the number of days of absence only includes absence for the following reasons: sickness, work and travel-related injuries as well as for other reasons such as unpaid leave and unjustified absence. Days of absence due to labor issues or union-related activities, pre-retirement

and maternity leave are not included. The number of hours worked used to calculate absenteeism rate is the theoretical number of hours worked.

For EDF and ERDF

EDF's workforce includes employees shared by EDF and Gaz de France Suez. An employ who works 50% for EDF represents 0.5 in the published figures.

Data on the number of accidents during the year and the number of lost days following a work-related accident at EDF are provided by the human resources information system (Sprint) or by default by the health and safety information system (Ariane Web). In the event of a difference between the two sources, the Group's rule is to include the more disadvantageous of the two figures.

The deployment of the new training management system at EDF and ERDF has led to difficulties in obtaining quantitative information about training.

For Group data

Changes in the scope of consolidated entities are not entirely reflected in the arrivals and departures recorded by Group subsidiaries, which is the main reason for discrepancies between the workforce shown for 2012 and the workforce calculated on the basis of the 2011 figure and 2012 arrivals and departures.

Movements of employees benefiting from the Statut Industries Electriques et Gazières (electricity and gas industries statute) are recorded as transfers and are not included in the figures for hire, resignations or redundancies, in application of one of that statute's sector agreements.

Movements between ERDF and EDF are recorded as "Other arrivals" and "Other departures".

In France, the accident frequency rate does not include accidents occurring during journeys between home and the workplace. However, outside France, road accidents may be taken into account when local legislation considers them to be work-related. The number of fatal accidents includes accidents in the workplace and those occurring during travel. It does not include fatal accidents involving subcontractors.

In view of the slight difference between the age brackets used by the EDF Group and Dalkia, the data for Dalkia has been extrapolated. Dalkia's age brackets are: "under 24 years", from 25 to 34 years", from 35 to 44 years", "from 45 to 54 years", "over 55 years".

Training for which no documentary evidence has been received before the reporting closing date is not taken into account. Data for vocational training contracts in France is not automatically included.

In countries where there is no compulsory declaration of the number of employees with disabilities, the data reported is based on the voluntary declaration of employees themselves.

Details on environmental indicators

Environmental data included in this report is established on the basis of descriptions and methodologies outlined in the 2012 edition of the Group's reporting reference guide. All the indicators relating to consumption and emissions are linked to the process of generating electricity and heat.

Accounting data relating to provisions for decommissioning and last core, as well as for the end of the nuclear fuel cycle, is Group consolidated data derived from Group accounting.

Indicators for water drawn and discharged

Cooling water indicators include water drawn from and discharged into the environment (rivers, sea or groundwater) and may also include water drawn from the water distribution or wastewater collection systems. For coastal nuclear plants and fossil-fired plants, the quantities of cooling water drawn and discharged are calculated based on the pumps' operating time and nominal discharge. Indicators relating to "freshwater" (including brackish water where relevant) were introduced in 2010.

Atmospheric emissions

CO_2 and SO_2 emissions from EDF's plants are calculated based on fuel analysis or standard emission factors.

CO_2 and SO_2 emissions from EDF's fossil-fired plants include all phases of electricity generation, from commissioning to shutdown.

EDF's SF_6 emissions are calculated based on SF_6 cylinder mass or on a nominal annual escape rate of 2% of the volume of SF_6 gas contained in the cylinders.

The SF_6 indicator was extended to include both EDF and ERDF in 2011.

In 2012, for the first time, the SF_6 indicator is reported for the entire Group.

Conventional industrial waste

Data related to the quantities of conventional waste removed and recycled is based on information available at the closing date for this report. The data reported does not include:

- conventional industrial waste generated by Dalkia International and Dalkia Investissement;
- the portion of conventional industrial waste recycled directly by some subsidiaries, including those in Poland and some in the Asia-Pacific region.

When the EDF Group is responsible for managing waste from construction and decommissioning sites, that waste is included in this report. However, waste for which contractors are responsible is not taken into account. In the case of construction, for example, site waste is generally the responsibility of the construction company (transport packaging, product scraps, paint containers, etc.).

Concerning ERDF, the 2012 report relating to waste is based on a rolling year. Wooden poles are included in the reporting scope but concrete pillars are excluded since the current reporting organization does not enable them to be monitored effectively.

The reporting scope for hazardous waste, non-hazardous waste and conventional industrial waste recycled or transported for recycling was extended to the EDF Group (rather than just EDF and ERDF) in 2011.

Nuclear waste

EDF

The indicator for "Very low-level radioactive waste from decommissioning (VLLW)" includes:

- the actual tonnage of waste sent directly to CSTFA (the Group's VLLW storage facility);
- the tonnage of waste sent to the Centraco processing plant weighted by the estimated ratios, calculated annually based on feedback from Socodei over three years, to determine how much very low-level waste was transported to the storage center.

In 2012, all very low-level radioactive waste from decommissioning was sent directly to CSTFA.

The indicator "Solid low- and intermediate-level short-lived radioactive waste produced by reactors in operation" does not take into account exceptional maintenance (vessel heads, steam generators). The volume of waste calculated corresponds to the volume of waste stored at the Aube center (after compacting of the drums, incineration and fusion). The volume of waste generated by the reprocessing of waste released and processed during previous financial years has not been included.

The indicator "Solid intermediate- and high-level long-lived nuclear waste" includes a degree of uncertainty linked to the conditioning ratio (number of packages effectively realized following the processing of a tonne of fuel). This ratio can only be established definitively in retrospect as it is essentially dependent on the mix effected to optimize the operations. The indicator is an estimate assuming the long-term nature of current practices of conditioning long-lived waste, and forecasts for the short term the same ratio of conditioning.

EDF Energy

Data relating to the indicator "Intermediate-level nuclear waste" from Nuclear Generation, EDF Energy's nuclear business unit, is based on the inventory of radioactive waste in the United Kingdom produced by the Nuclear Decommissioning Authority. This is an estimate of the annual volume of waste which will be considered and classified as intermediate-level radioactive waste at the end of the life of the nuclear generation sites. These estimates include the conditioning that will be necessary to ensure the removal of the waste from the sites. All intermediate-level radioactive waste is currently being stored at the nuclear generation sites ahead of a national decision on its final handling.

The indicator "Low-level radioactive waste" includes dessicants that are transported for treatment as intermediate-level waste, in compliance with current regulations.

Constellation Energy Nuclear Group

Constellation Energy Nuclear Group's indicator for "Solid low- and intermediate-level radioactive waste" concerns radioactive waste that is not highly radioactive. In the United States, the Nuclear Regulatory Commission (NRC) classifies waste into one of three groups of solid low- and intermediate-level radioactive waste – type A, B or C – according to the level of radioactivity (A being the lowest level). Data reported by CENG corresponds to the volume of treated waste removed from sites and reported to the Nuclear Regulatory Commission (volumes of waste generated by the Ginna site in 2010).

The indicator "Delivered nuclear fuel" reported by CENG represents the quantity of fuel delivered to generation sites. Suppliers report these quantities in grams of uranium to the Nuclear Regulatory Commission.

Quantity of electricity and heat generated from renewable energies

Data on Dalkia International's electricity and heat generation from renewable sources have been included in the consolidated figure for 2012 for the first time. The proportion of electricity and heat generated from renewable sources is estimated based on the total quantities of electricity and heat generated.

Environmental protection expenditure

Expenditure on environmental protection corresponds to expenditure reported by the various EDF entities.

The definition adopted for expenditure on environmental protection is based on the recommendation issued by the Conseil National de la Comptabilité, the French National Accounting Council, on October 21, 2003 (itself based on the European recommendation of May 30, 2001). Environmental expenditure is the additional identifiable expenditure aimed at preventing, reducing or repairing the environmental damage effectively or potentially caused by the company's activities.

This expenditure is incurred, for example, through:

- eliminating waste and efforts to reduce its quantity;
- combating ground and water pollution;
- safeguarding the quality of the air and the climate;
- reducing noise emissions;
- protecting biodiversity and the natural environment;
- decommissioning power plants.

The assessment covers the costs, excluding taxes, broken down into the following three main categories:

- operating expenditure (including studies relating to operating expenditure), excluding expenses for which provisions were previously set aside;
- investment expenditure (including related studies);
- provisions, including discounting expenses.

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EDF GROUP IS ISO 14001 CERTIFIED

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