France
Power & gas activities

Latest update: June 2010

Table of Contents

1. Introduction

1.1 Key figures

Key Figures

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Population	M	60.5	60.9	61.4	61.7	62.0	62.4	0.63%
GDP	G€05	1,694	1,726	1,764	1,802	1,809	1,770	0.88%
Energy production	Mtoe	138.0	137.8	137.7	135.5	136.1	128.3	-1.45%
Net imports	Mtoe	139.9	142.8	140.1	135.8	140.4	135.7	-0.60%
Total energy consumption	Mtoe	270.3	271.1	267.4	263.4	266.6	254.3	-1.21%
Electricity consumption	TWh	448.6	450.9	446.3	448.3	461.9	452.8	0.19%
CO2 Emissions	MtCO2	373.7	371.7	361.0	352.0	351.5	336.7	-2.06%

Key Indicators

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Consumption per capita	toe/ hab	4.5	4.5	4.4	4.3	4.3	4.1	-1.83%
CO2/Energy consumption	tCO2/ toe	1.4	1.4	1.4	1.3	1.3	1.3	-0.87%
CO2/Population	tCO2/ cap	6.2	6.1	5.9	5.7	5.7	5.4	-2.68%
CO2/GDP	kCO2/ k€05	220	215	205	195	194	190	-2.87%

#: All notes are available on page 30

1.2 Market

Market institutions & policy

In France, the General Directorate for Energy and Climate (DGEC) of the Ministry of Ecology, Energy, Sustainable Development and Spatial Planning (MEEDDAT) is responsible for the development and implementation of France's energy policy.

The **Energy Regulation Commission (CRE)** ensures equitable and transparent access to the distribution and grid network, and is responsible for the smooth operation of the two markets.

The French Agency for Environment and Energy Management (ADEME) was created in 1991 following the merger of the French Agency for Energy Demand Management, the Air Quality Agency and the National Waste Agency. ADEME is a public agency and is responsible for the implementation of public policy on energy efficiency, new and renewable energy sources (ENR) and measures on air pollution and waste disposal. It is supervised by the ministries of Economy, Research and Environment.

In June 2005, a new energy law led to the establishment of a system of **energy saving certificates** («white certificates») that imposes energy saving quotas on energy companies. According to the law, final energy intensity has to be reduced by 2%/year by 2015. The energy savings certificate system set the volume of energy savings for energy companies at 54 TWh between July 2006 and July 2009 (31 TWh for electricity and 14 TWh for gas). This system started slowly (only 9.5 TWh of energy saving certificates issued between July 2006 and December 2007) but is accelerating (volume of 28.6 TWh in November 2008 and 42.9 TWh in March 2009). The target was reached, since at the end of the first period the volume of certificates amounted to 65 TWh. Most of the certificates were obtained in residential buildings (above 85%). A second period of white certificates is planned and should be expanded to other sectors, including transport. The annual objective is to reach 100 TWh.

In accordance with the European Directive on promotion on the use of energy from renewable sources, the national target is to increase the share of renewable energies in final consumption to 23% in 2020. The European target was integrated within the framework of the "Grenelle de l'Environnement", which defines objectives for electricity production from renewable energies in 2020: 25,000 MW of wind, of which 6,000 MW is offshore, 5,400 MW is solar photovoltaic, 2,300 MW is biomass and 3,000 MW is hydro for the peak period. Accordingly, electricity production from renewables should increase from 5.6 Mtoe in 2006 to 12.9 Mtoe in 2020. The "Grenelle 1" Act (First Environment Round Table Act), was ratified by Parliament in July 2009. A second law known as "Grenelle 2", the Bill on the national commitment to the environment, is due to be adopted in 2010.

#: All notes are available on page 30

Power market organisation

Since 1 July 2007, the market has been completely open to all consumers. Each client has the choice between three types of contracts:
- Contracts under regulated tariffs (offered by incumbent suppliers only)
- Contracts at market prices (offered by incumbent suppliers and alternative suppliers)
- "TaRTAM" Contracts for customers that want to return to regulated tariffs after buying electricity at market price (only possible after a maximum of two years at market prices). The TaRTAM is equal to the regulated retail tariff exclusive of tax, increased by about 20%. The possibility to return to the regulated tariff will end in June 2010.

The transposition into French law of the European Directive on the opening of the electricity market took effect in June 2000 (30% of the market was opened, which corresponds to an eligibility threshold of 16 GWh/year). In February 2003, the eligibility threshold was lowered to 7 GWh/year. Then, on 1 July 2004, the market was fully opened to all companies, local authorities and professionals.

To accelerate the entry of new producers, EDF has to sell a total volume of 1,500 MW over periods of up to 15 years within the framework of three successive calls for tenders. The first and second calls for tenders, for 500 MW each, took place in March and November 2008, respectively. Within the framework of the third call for tenders in November 2009, EDF also auctioned 500 MW.

EDF also had to unbundle its distribution activities through the creation of the wholly-owned subsidiary **ErDF** in January 2008. It has to ensure non-discriminatory access to the distribution network for all suppliers. Tariffs for using the public electricity transmission and distribution networks (TURPE) are approved by Ministry of Economy and Ministry of Energy, upon proposal from the regulator (CRE). Transportation activities were also separated from EDF's other businesses through the creation of an independent subsidiary, **RTE-EDF Transport**.

At **end-2009**, about 2.15 million sites had contracts at market prices (including TaRTAM), of which 1.4 million were residential sites. This represented a 5.5% cut compared to 2008. Contracts at market prices accounted for 33% of global consumption. Alternative suppliers represented 10.2% of total electricity consumption.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Date of market opening								
- Residential								
- Commercial and small businesses								
- Large industry								
Eligible consumption	**TWh**	**295.0**	**302.0**	**310.0**	**425.2**	**438.6**	**430.9**	**7.87%**
Sales on the liberalised market	**TWh**	**n.a.**	**n.a.**	**n.a.**	**133.3**	**140.1**	**141.9**	
Switching rate to market price in eligible consumption #1	**%**	**n.a.**	**n.a.**	**n.a.**	**31.4**	**31.9**	**32.9**	

Eligible consumption — At end 2009, the retail market represented 34.8 million of eligible sites. Around 32% of electricity consumption and 86% of sites are in the residential segment.

#: All notes are available on page 30

Gas market organisation

The gas market has been fully liberalised since 1 July 2007.
Transposition into French law of the Gas Directive took effect in December 2002.
The entire professional gas market (640,000 sites) was opened to competition on 1 July 2004.

GDF had to put a bidding programme in place. The first bid was for 6 TWh and was introduced in October 2004. These bids are made within the framework of a gas release programme over 3 years for a total volume of 45 TWh (18 TWh through bids and 27 TWh sold through negotiations). A Gas Exchange Point Programme (PEG) was also developed for each balancing point in France.

In accordance with the European regulations that require a legal separation of energy provider businesses from network operations, GDF also had to create **GRTgaz** and **GrDF**, two wholly-owned subsidiaries to manage the gas transport and distribution activities, respectively. Access tariffs for the gas network have been regulated since January 2004.

At **end-2009**, 1.39 million sites (including 1.14 million residential clients) had made use of their eligibility (+17.4% compared to 2008) for a volume of about 238 TWh (48% of the total volume). Nearly 6.5% of eligible sites chose an alternative supplier, representing almost 16.5% of global consumption. The rate of exercise of eligibility is higher for non-residential sites, for which competition has been open for a longer period.

In November 2008, Powernext launched the first organised gas market. It has a spot market (Powernext Gas Spot) and a futures market (Powernext Gas Futures). The gas market counts eleven members: Direct Energy, ENOI, EDF Trading, Gaselys, Gazprom Marketing & Trading, Mercuria Energy Trading, Morgan Stanley, Poweo, The Royal Bank of Scotland, Total Gas & Power and Vitol. Powernext signed a market operation agreement with 5 members (EDF Trading, ENOI, Gaselys, Poweo and Total Gas & Power), bringing in the necessary liquidity for a reliable and transparent price reference.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Date of market opening								
- Residential								
- Commercial and small businesses								
- Large industry								
Sales on the liberalised market	**TWh**	**157.1**	**182.5**	**207.1**	**236.9**	**240.4**	**237.6**	**8.62%**

Sales on the liberalised market — Gas input to power plants are included in liberalised sales.

#: All notes are available on page 30

1.3 Actors

Main actors

Market shares by Actors

	Power & Gas	Power	Gas
EDF	44%	88%	4%
GDF SUEZ	30%	3%	57%
E.ON	2%	2%	1%
Total	**76%**	**93%**	**62%**

Given its previous monopoly position, **EDF** still dominates the French electricity market.
Until the market opening, it held a monopoly on transport. It also controlled almost the entire distribution network with the exception of a small number of towns (Bordeaux, Grenoble and Strasbourg). Gaz de France (GDF) has been the second largest utility in the country. In 2008, it became **GDF SUEZ** following its merger with the Suez Group. GDF SUEZ is the leader in the gas market. Before the opening of the market, GDF supplied nearly 90% of gas distribution. Moreover, it held a monopoly on imports and exports.
Following the purchase of the Endesa's 65% stake in SNET (June 2008), **E.ON** became the country's third largest actor in presence. Within the framework of a generation capacity swap with EDF, E.ON acquired the remaining 35% stake in SNET and thus became the sole owner of the company in 2009.
Total Infrastructure Gaz France (TIGF), the subsidiary of Total in charge of gas transportation and storage, is the second largest player in the gas distribution and transportation sector. TIGF accounts for about 15% of gas volumes distributed.
New players have entered the gas market since its liberalisation, the main ones being TEGAZ (100% Total subsidiary) and Distrigas, bought by ENI in May 2008.

Market shares by actor: Power & Gas

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Total end-consumer sales	**TWh**	**936.1**	**917.4**	**898.2**	**882.8**	**913.0**	**911.4**	**-0.53%**
EDF	TWh	398.0	392.2	391.3	413.0	406.3	397.5	-0.03%
	%	**41.2**	**41.4**	**42.2**	**45.3**	**43.1**	**43.6**	**1.13%**
GDF SUEZ	TWh	n.r.	n.r.	n.r.	290.9	296.8	278.1	
	%	**n.a.**	**n.a.**	**n.a.**	**31.9**	**31.5**	**30.5**	
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	18.5	n.a	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**1.96**	**n.a.**	
Others	TWh	538.1	525.2	506.9	178.9	191.4	235.8	-15.2%
	%	**58.8**	**58.6**	**57.8**	**22.8**	**23.5**	**25.9**	**-15.1%**

#: All notes are available on page 30

1.4 Investments

Power investments and perspectives

According to the RTE's forecasts, electricity demand will increase by 1.6%/year by 2030 (reference scenario). As such, the RTE estimates that electricity demand will be about 625 TWh in 2030, which is 200 TWh above current demand.
The last few years have been characterised by strong growth in the number of projects for new production capacities. RTE plans to increase wind capacity to 5 GW in 2010 and 7 GW in 2012.

Nuclear energy
The future of nuclear energy in France is one of the main points of the country's energy policy and is closely linked to the development of nuclear energy in Europe in general.
The construction of a new EPR reactor, with a capacity of 1,600 MW, started in Flamanville. The total cost for construction of the reactor was re-evaluated at €4bn (corresponding to €55/MWh), from approximately €3.3bn announced in 2006, mainly because of the rise in the cost of raw materials and the impact of changes in technical and regulatory aspects. The start of commercial operations has been delayed by one year, to 2013.
Enel and EDF signed a cooperation agreement for Enel to acquire an initial 12.5% stake in the EPR project.

A second EPR reactor will be built at the Penly site from 2012: EDF will hold 50% (plus one share), while GDF SUEZ will hold 33.33% (plus one share) in the company in charge of the nuclear project. GDF SUEZ will split its share in the company with Total, as follows: 75% for GDF SUEZ and 25% for Total. A further 16.66% share in the company will be opened to other electricity companies; E.ON and Enel should acquire a stake in the Penly project. Commissioning is expected in 2017.

Power plant projects
In 2007, EDF undertook a large investment programme to be completed by 2012. Around 2,000 MW of thermal capacities are yet to be developed.
GDF SUEZ is building a 425 MW gas combined cycle power plant in Fos-sur-Mer (CombiGolfe).
The alternative supplier, Poweo, plans to build 4 power plants with a total capacity of 2,400 MW, including an 800 MW gas power plant connected to the LNG terminal, to be built in Antifer.

Interconnections
Three projects are being studied to enable Italy to increase its import capacities: the construction of a 1,000 MW Grandelle-Piossasco connection and two connections between Briançon and Oulx, and Villarodin and Bardonecchia, with a capacity of between 60 MW and 100 MW.
The construction of a high voltage line between France and Spain should start soon. This project, which was paralysed for several years because of the opposition of residents and ecologists, was reactivated in 2008 following the decision to bury 60 km of lines between Perpignan and Baixas. The total project cost is estimated at between €500m and €700m. A company was created on a 50-50 basis by the two grid managers, RTE and REE. The construction phase is planned to start in 2011 and the line is expected to become operational by late 2013.

#: All notes are available on page 30

Gas investments and perspectives

LNG terminals

A third LNG regasification terminal with a capacity of 8.25 bcm/year was commissioned in Fos-sur-Mer in April 2010. It received its first delivery of gas from Egypt. Actually, the facility will only run at 20% of capacity until new larger permits are granted by the French authorities. Held by GDF SUEZ (71.2%) and Total (28.8%), the Fos-Cavaou Methane Terminal Company (STMFC) recently allotted 10% of capacities for sales (that is to say 825 mcm per year) over a period of 3.5 years. The companies selected are Essent, Distrigaz, ENI and EDF.

The construction of other LNG terminals is being studied for commissioning between 2011 and 2015. They would represent a total capacity of at least 35 bcm/year, which accounts for more than 40% of total consumption in France by 2010. The Government approved construction of the Antifer LNG terminal by Gaz de Normandie (50.3% Poweo, 25.2% CIM and 24.5% E.ON Ruhrgas). The final investment decision is expected to be made by late 2010, and it should be commissioned in 2012. A terminal with a capacity of 8 bcm should be developed by the joint venture Fos Faster (Vopak 90% and Shell 10%) in Fos-sur-Mer by 2015. In February 2009, EDF submitted a request for a licence to build an LNG import terminal in Dunkerque, including exemptions from the obligation to grant access to third parties. The planned terminal would have a capacity of between 10 and 13 bcm/year. EDF expects to begin work in 2010, and to commission the facility in 2014.

Storage

The country plans to connect the Bilbao LNG reception terminal to the storage facility in Lussagnet, close to Lacq, by extending the Irun-Arcangues gas pipeline. Thanks to the construction of the gas pipeline, Lacq could become one of the focal points of a future European gas market (potential transit of 500 mcm/year of gas); said connection will also make it possible to forward imported gas from Algeria. There are also plans for a project to develop the Lussagnet and Izaute storage facilities over the next ten years.

Interconnections

Since the demand from Spain is growing, the connection between France and Spain will be developed through investments in the Artère de Guyenne pipeline, and the reinforcement of the Larrau connection. The two countries aim to reach an interconnection capacity of 7.2 bcm/year in 2013. There are plans to increase capacity at the Larrau point to 5.2 bcm/year by 2013.
A new interconnection project, called MidCat, is being evaluated. It would allow the transport of 5.5 bcm/year from France to Spain and 7 bcm in the opposite direction.
A new interconnection with Belgium has been approved by the French and Belgian regulators. The 25-km interconnection between Pitgam and Veurne in Belgium will add a capacity of between 8.4 bcm and 11.3 bcm/year as from 2014-2015.

Network

GRTgaz will invest €1.24bn by 2012-2013. It announced a €5bn investment plan over the period 2008-2017, half of which should be devoted to the fluidity of the network. In 2009, investments reached €658m.

#: All notes are available on page 30

2. Power Activities

2.1 Market

Turnover

Figures are estimated by Enerdata, and correspond to the sum of turnover for each customer segment, calculated as the product of the average price and average sale for each segment.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Power business	**€m**	**38,628**	**38,934**	**38,902**	**39,404**	**40,745**	**47,158**	**4.07%**
EDF	€m	28,703	30,015	31,941	32,232	34,264	34,004	3.45%
	%	**74.3**	**77.1**	**82.1**	**81.8**	**84.1**	**72.1**	**-0.60%**

Power business EDF's figures include the gas business and engineering and consulting activities.

Employees

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Power business	**empl.**	**114,451**	**115,357**	**111,586**	**106,972**	**110,614**	**128,024**	**2.27%**
EDF	empl.	109,463	108,557	105,611	104,628	104,220	104,285	-0.96%
	%	**95.6**	**94.1**	**94.6**	**97.8**	**94.2**	**81.5**	**-3.16%**

#: All notes are available on page 30

2.2 Production

Power Capacity by Source - National companies

The installed capacity is 121 GW, 63 GW of which is nuclear. French nuclear capacity is mainly owned by EDF. GDF SUEZ holds drawing rights at the Chooz B and Tricastin nuclear power plants. The Group has a total installed capacity of around 5,500 MW, mainly thermal and hydro. E.ON accounts for around 10% of thermal capacity in 2009.
Poweo inaugurated its 412 MW gas combined cycle power plant in Pont-sur-Sambre (€300m). Commercial operations started in 2009. EDF is entitled to a capacity of 160 MW during 15 years, in accordance with a swap agreement on nuclear capacities signed in 2007. In September 2009, GDF SUEZ commissioned a new gas combined cycle power plant with a capacity of 420 MW in Fos-sur-Mer (CyCoFos project). In mid-2010, E.ON commissioned a gas combined cycle power plant on the site of the Emile Huchet power plant in Saint Avold in Lorraine (2x430 MW), for a cost of €470m.
EDF commissioned the country's largest wind farm in Salles-Curan, near Millau, with a capacity of 87 MW provided by 29 turbines. It also commissioned France's largest solar power plant near Narbone, with a capacity of 7 MW.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Thermal (excl. Biomass)	**MW**	**23,695**	**25,427**	**25,337**	**25,337**	**25,492**	**26,384**	**2.17%**
EDF	MW	16,177	13,920	13,206	13,032	13,407	13,642	-3.35%
	%	**68.3**	**54.7**	**52.1**	**51.4**	**52.6**	**51.7**	**-5.41%**
GDF SUEZ	MW	n.a.	n.a.	n.a.	1,896	2,318	2,806	
	%	**n.a.**	**n.a.**	**n.a.**	**7.48**	**9.09**	**10.6**	
E.ON	MW	n.a.	n.a.	n.a.	n.a.	1,610	2,477	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**6.32**	**9.39**	
Others	MW	7,518	11,507	12,131	10,409	8,157	7,459	-0.16%
	%	**31.7**	**45.3**	**47.9**	**41.1**	**32.0**	**28.3**	**-2.28%**
Nuclear	**MW**	**63,363**	**63,260**	**63,260**	**63,260**	**63,260**	**63,130**	**-0.07%**
Large Hydro	**MW**	**23,298**	**23,314**	**23,308**	**23,310**	**23,249**	**23,191**	**-0.09%**
EDF	MW	20,049	19,990	20,062	20,069	20,066	20,008	-0.04%
	%	**86.1**	**85.7**	**86.1**	**86.1**	**86.3**	**86.3**	**0.05%**
GDF SUEZ	MW	n.r.	n.r.	n.r.	2,241	2,243	2,246	
	%	**n.a.**	**n.a.**	**n.a.**	**9.61**	**9.65**	**9.68**	
Renewables (except large hydro)	**MW**	**3,208**	**3,719**	**4,374**	**5,474**	**6,626**	**7,797**	**19.4%**
EDF	MW	n.a.	n.a.	60	60	147	201	
	%	**n.a.**	**n.a.**	**1.37**	**1.10**	**2.21**	**2.58**	
GDF SUEZ	MW	n.r.	n.r.	n.r.	250	384	513	
	%	**n.a.**	**n.a.**	**n.a.**	**4.57**	**5.80**	**6.58**	
E.ON	MW	n.r.	n.r.	n.r.	n.r.	42	65	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**0.64**	**0.83**	
Others	MW	n.a.	n.a.	4,314	5,164	6,053	7,018	
	%	**n.a.**	**n.a.**	**98.6**	**94.3**	**91.4**	**90.0**	
Total country's installed capacities	**MW**	**113,564**	**115,720**	**116,279**	**117,381**	**118,627**	**120,502**	**1.19%**
EDF	MW	99,356	97,040	96,458	96,291	96,762	96,993	-0.48%
	%	**87.5**	**83.9**	**83.0**	**82.0**	**81.6**	**80.5**	**-1.65%**
GDF SUEZ	MW	n.r.	n.r.	n.r.	4,387	4,945	5,565	

#: All notes are available on page 30

	%	**n.a.**	**n.a.**	**n.a.**	**3.74**	**4.17**	**4.62**	
E.ON	MW	n.r.	n.r.	n.r.	n.r.	1,652	2,542	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**1.39**	**2.11**	
Others	MW	14,208	18,680	19,821	16,703	15,268	15,402	1.63%
	%	**12.5**	**16.1**	**17.0**	**14.2**	**12.9**	**12.8**	**0.43%**

Power Capacity by Source - Presence of European utilities

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Thermal (excl. Biomass)	**MW**	**23,695**	**25,427**	**25,337**	**25,337**	**25,492**	**26,384**	**2.17%**
EDF	MW	16,177	13,920	13,206	13,032	13,407	13,642	-3.35%
	%	**68.3**	**54.7**	**52.1**	**51.4**	**52.6**	**51.7**	**-5.41%**
E.ON	MW	n.a.	n.a.	n.a.	n.a.	1,610	2,477	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**6.32**	**9.39**	
Others	MW	7,518	11,507	12,131	12,305	10,475	10,265	6.43%
	%	**31.7**	**45.3**	**47.9**	**48.6**	**41.1**	**38.9**	**4.16%**
Nuclear	**MW**	**63,363**	**63,260**	**63,260**	**63,260**	**63,260**	**63,130**	**-0.07%**
Large Hydro	**MW**	**23,298**	**23,314**	**23,308**	**23,310**	**23,249**	**23,191**	**-0.09%**
EDF	MW	20,049	19,990	20,062	20,069	20,066	20,008	-0.04%
	%	**86.1**	**85.7**	**86.1**	**86.1**	**86.3**	**86.3**	**0.05%**
Renewables (except large hydro)	**MW**	**3,208**	**3,719**	**4,374**	**5,474**	**6,626**	**7,797**	**19.4%**
EDF	MW	n.a.	n.a.	60	60	147	201	
	%	**n.a.**	**n.a.**	**1.37**	**1.10**	**2.21**	**2.58**	
E.ON	MW	n.r.	n.r.	n.r.	n.r.	42	65	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**0.64**	**0.83**	
Others	MW	n.a.	n.a.	4,314	5,414	6,437	7,531	
	%	**n.a.**	**n.a.**	**98.6**	**98.9**	**97.1**	**96.6**	
Total country's installed capacities	**MW**	**113,564**	**115,720**	**116,279**	**117,381**	**118,627**	**120,502**	**1.19%**
EDF	MW	99,356	97,040	96,458	96,291	96,762	96,993	-0.48%
	%	**87.5**	**83.9**	**83.0**	**82.0**	**81.6**	**80.5**	**-1.65%**
E.ON	MW	n.r.	n.r.	n.r.	n.r.	1,652	2,542	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**1.39**	**2.11**	
Others	MW	14,208	18,680	19,821	21,090	20,213	20,967	8.09%
	%	**12.5**	**16.1**	**17.0**	**18.0**	**17.0**	**17.4**	**6.82%**

#: All notes are available on page 30

Power Generation by Source - National companies

Electricity production dropped by 6% in 2009 and reached 542 TWh. Nuclear power accounted for nearly 76% of total production, hydroelectricity for 12% and thermal for about 10%. Nuclear production is handled by EDF. In 2009, the Group still accounted for more than 85% of the coutry's power generation. GDF SUEZ reached a market share of over 4% in electricity production during the year.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Thermal (excl. Biomass)	**TWh**	**52.6**	**59.1**	**53.0**	**54.0**	**52.3**	**53.4**	**0.33%**
EDF	TWh	16.5	21.4	16.9	18.2	15.8	16.0	-0.61%
	%	**31.4**	**36.2**	**31.9**	**33.7**	**30.2**	**29.9**	**-0.94%**
GDF SUEZ	TWh	n.a.	n.a.	n.a.	11.4	11.6	13.6	
	%	**n.a.**	**n.a.**	**n.a.**	**21.1**	**22.2**	**25.5**	
Nuclear	**TWh**	**431.8**	**433.9**	**432.6**	**423.1**	**423.1**	**394.9**	**-1.77%**
Large Hydro	**TWh**	**58.9**	**51.1**	**55.6**	**57.6**	**61.9**	**56.2**	**-0.95%**
EDF	TWh	43.9	37.5	40.2	41.2	44.8	41.9	-0.93%
	%	**74.5**	**73.3**	**72.3**	**71.5**	**72.4**	**74.6**	**0.03%**
GDF SUEZ	TWh	n.r.	n.r.	n.r.	9.4	9.6	8.3	
	%	**n.a.**	**n.a.**	**n.a.**	**16.3**	**15.6**	**14.8**	
Renewables (except large hydro)	**TWh**	**11.3**	**10.9**	**12.5**	**15.2**	**17.6**	**19.4**	**11.4%**
EDF	TWh	n.a.	n.a.	n.a.	n.a.	0.3	0.4	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**1.71**	**2.06**	
GDF SUEZ	TWh	n.r.	n.r.	n.r.	0.1	0.7	0.9	
	%	**n.a.**	**n.a.**	**n.a.**	**0.66**	**3.98**	**4.64**	
Net production	**TWh**	**549.5**	**550.1**	**548.9**	**544.4**	**549.0**	**517.7**	**-1.19%**
EDF	TWh	487.5	488.1	485.2	477.5	478.6	448.1	-1.67%
	%	**88.7**	**88.7**	**88.4**	**87.7**	**87.2**	**86.6**	**-0.49%**
GDF SUEZ	TWh	n.r.	n.r.	n.r.	20.9	21.9	22.8	
	%	**n.a.**	**n.a.**	**n.a.**	**3.84**	**4.00**	**4.40**	
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	5.5	n.a.	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**0.99**	**n.a.**	
Others	TWh	62.0	62.0	63.7	46.0	43.0	46.8	-5.47%
	%	**11.3**	**11.3**	**11.6**	**8.46**	**7.83**	**9.05**	**-4.33%**

Power Generation by Source - Presence of European utilities

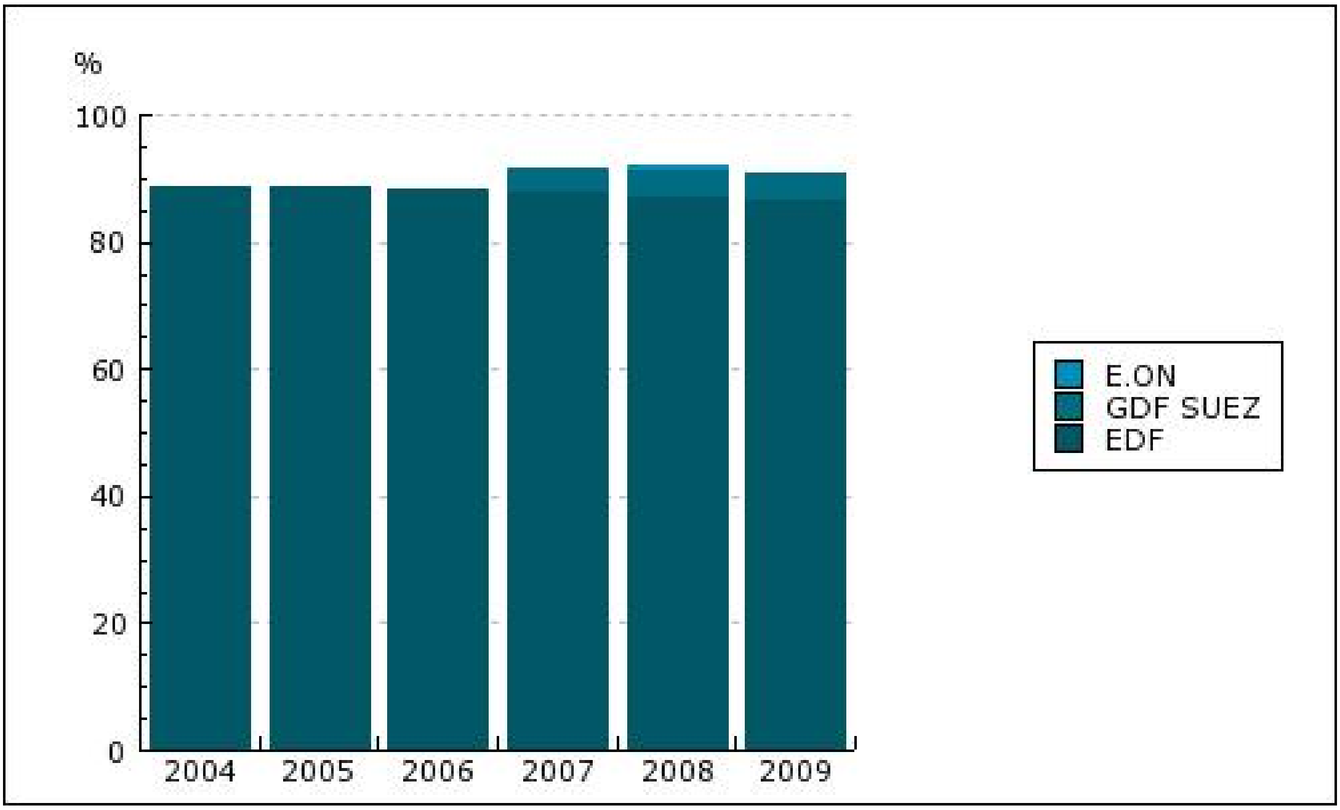
	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Thermal (excl. Biomass)	**TWh**	**52.6**	**59.1**	**53.0**	**54.0**	**52.3**	**53.4**	**0.33%**
EDF	TWh	16.5	21.4	16.9	18.2	15.8	16.0	-0.61%
	%	**31.4**	**36.2**	**31.9**	**33.7**	**30.2**	**29.9**	**-0.94%**
Nuclear	**TWh**	**431.8**	**433.9**	**432.6**	**423.1**	**423.1**	**394.9**	**-1.77%**
Large Hydro	**TWh**	**58.9**	**51.1**	**55.6**	**57.6**	**61.9**	**56.2**	**-0.95%**
EDF	TWh	43.9	37.5	40.2	41.2	44.8	41.9	-0.93%
	%	**74.5**	**73.3**	**72.3**	**71.5**	**72.4**	**74.6**	**0.03%**
Renewables (except large hydro)	**TWh**	**11.3**	**10.9**	**12.5**	**15.2**	**17.6**	**19.4**	**11.4%**
EDF	TWh	n.a.	n.a.	n.a.	n.a.	0.3	0.4	

#: All notes are available on page 30

	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**1.71**	**2.06**	
Net production	**TWh**	**549.5**	**550.1**	**548.9**	**544.4**	**549.0**	**517.7**	**-1.19%**
EDF	TWh	487.5	488.1	485.2	477.5	478.6	448.1	-1.67%
	%	**88.7**	**88.7**	**88.4**	**87.7**	**87.2**	**86.6**	**-0.49%**
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	5.5	n.a.	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**0.99**	**n.a.**	
Others	TWh	62.0	62.0	63.7	66.9	64.9	69.6	2.34%
	%	**11.3**	**11.3**	**11.6**	**12.3**	**11.8**	**13.4**	**3.56%**

#: All notes are available on page 30

Largest Producers



#: All notes are available on page 30

Power Balance

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Gross production	**TWh**	**574.3**	**576.2**	**574.6**	**569.8**	**574.5**	**541.8**	**-1.16%**
Imports	**TWh**	**6.6**	**8.1**	**8.5**	**10.8**	**10.7**	**20.8**	**25.9%**
Exports	**TWh**	**68.5**	**68.4**	**71.9**	**67.6**	**58.7**	**45.1**	**-8.02%**
Gross consumption	TWh	512.4	515.8	511.2	513.0	526.5	517.5	0.20%
Own use	TWh	24.7	26.0	25.7	25.4	25.5	24.0	-0.56%
Net production	TWh	549.5	550.1	548.9	544.4	549.0	517.7	-1.19%
Input pumping	TWh	7.3	6.6	7.5	7.7	6.5	6.8	-1.47%
Transport/distribution losses	TWh	31.7	32.2	31.8	31.6	32.7	33.8	1.28%
Electricity consumption	**TWh**	**448.6**	**450.9**	**446.3**	**448.3**	**461.9**	**452.8**	**0.19%**
Energy sector consumption	TWh	28.6	28.3	19.5	22.4	23.1	22.6	-4.55%
Final consumption	**TWh**	**420.0**	**422.6**	**426.7**	**425.9**	**438.8**	**430.2**	**0.48%**
Industrial & Corporate	TWh	136.6	139.5	134.3	132.6	130.1	118.3	-2.83%
Transport	TWh	12.4	12.2	12.4	12.4	12.9	13.4	1.57%
Private & Commercial	TWh	271.0	270.8	280.1	280.8	295.8	298.4	1.95%

#: All notes are available on page 30

2.3 Transmission & Distribution

Power Network

France has interconnection capacities with Belgium (3,400 MW), Germany (2,800 MW), Switzerland (3,200 MW), Italy (2,650 MW) and Spain (1,300 MW) (Net Transfer Capacity, Winter 2009). Exports capacities thus account for 11% of the total installed capacity. In 2009, France was a net exporter with 24 TWh (48 TWh in 2008).

RTE-EDF Transport, an independent subsidiary of EDF and a joint stock company since September 2005, manages the transmission network (100,000 km).
RTE and Elia, manager of the Belgian network, created Coreso (Coordination of Electricity System Operators). The aim of the joint company is to host the first regional technical coordination centre linked to several TSOs in the area of mid-western Europe. Coreso started operating in February 2009 and National Grid joined the company in May 2009.

ErDF (Electricity Network Distribution France), created in January 2008, exploits EDF's distribution network (95% of the mainland network). It has about 33 million clients. About 5% of the distribution network is operated by local companies.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Distributed volumes #2	**TWh**	**428.8**	**429.2**	**424.0**	**425.2**	**438.6**	**430.9**	**0.09%**
EDF	TWh	342.8	n.a.	348.9	352.9	366.7	367.1	1.38%
	%	**79.9**	**n.a.**	**82.3**	**83.0**	**83.6**	**85.2**	**1.28%**
Distribution Power Lines	**km 000's**	**1,240.0**	**1,246.0**	**1,256.0**	**1,265.5**	**1,274.6**	**1,285.0**	**0.72%**
EDF	km 000's	1,240.0	1,246.0	1,256.0	1,265.5	1,274.6	1,285.0	0.72%
	%	**100**	**100**	**100**	**100**	**100**	**100**	**0%**
Transmission Power Lines #3	**km 000's**	**99.5**	**99.5**	**99.7**	**99.9**	**100.5**	**101.4**	**0.39%**
EDF	km 000's	99.5	99.5	99.7	99.9	100.5	101.4	0.39%
	%	**100**	**100**	**100**	**100**	**100**	**100**	**0%**

#: All notes are available on page 30

2.4 Sales

Power Consumption - National companies

The share of electricity in total energy consumption is increasing steadily, and in 2009 reached 43% (compared to 36% in 1990).
The country's electricity consumption per capita is significantly higher than the European average due to the high penetration of electrical heating (7,250 kWh in 2009 and 5,700 kWh in 1990). It is increasing relatively rapidly: 1.3%/year on average since 1990, but has been stabilising since 2004. Households absorb 34% of the electricity demand (10% of the electricity consumption is used for space heating), industry 26% and services 31% (2009).

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Total end-consumer sales #4	**TWh**	**428.8**	**429.2**	**424.0**	**425.2**	**438.6**	**430.9**	**0.09%**
EDF	TWh	398.0	389.0	382.0	395.1	387.1	379.0	-0.97%
	%	**92.8**	**90.6**	**90.1**	**92.9**	**88.3**	**88.0**	**-1.07%**
GDF SUEZ	TWh	n.r.	n.r.	n.r.	15.7	14.3	12.6	
	%	**n.a.**	**n.a.**	**n.a.**	**3.69**	**3.26**	**2.92**	
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	11.7	7.0	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**2.67**	**1.62**	
Others	TWh	30.8	40.2	42.0	14.4	25.5	32.3	0.91%
	%	**7.19**	**9.37**	**9.91**	**3.39**	**5.82**	**7.49**	**0.81%**

Power Consumption - Presence of European utilities

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Total end-consumer sales #5	**TWh**	**428.8**	**429.2**	**424.0**	**425.2**	**438.6**	**430.9**	**0.09%**
EDF	TWh	398.0	389.0	382.0	395.1	387.1	379.0	-0.97%
	%	**92.8**	**90.6**	**90.1**	**92.9**	**88.3**	**88.0**	**-1.07%**
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	11.7	7.0	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**2.67**	**1.62**	
Others	TWh	30.8	40.2	42.0	30.1	39.8	44.9	7.78%
	%	**7.19**	**9.37**	**9.91**	**7.08**	**9.07**	**10.4**	**7.68%**

Power Consumption on Liberalised Market - National companies

Figures are estimated by Enerdata and based on the energy regulator's data.
From 2007, sales in the liberalised market include TaRTAM sites.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Sales on the liberalised market	**TWh**	**n.a.**	**n.a.**	**n.a.**	**133.3**	**140.1**	**141.9**	
EDF	TWh	n.a.	n.a.	n.a.	103.2	102.7	98.1	
	%	**n.a.**	**n.a.**	**n.a.**	**77.4**	**73.3**	**69.1**	
GDF SUEZ	TWh	n.r.	n.r.	n.r.	15.7	14.3	12.6	
	%	**n.a.**	**n.a.**	**n.a.**	**11.8**	**10.2**	**8.88**	

#: All notes are available on page 30

E.ON	TWh	n.r.	n.r.	n.r.	n.r.	11.7	7.0	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**8.35**	**4.93**	
Others	TWh	n.a.	n.a.	n.a.	14.4	11.4	24.2	
	%	**n.a.**	**n.a.**	**n.a.**	**10.8**	**8.12**	**17.1**	

Power Consumption on Liberalised Market - Presence of European utilities

	Unit	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**CAGR 04/09**
Sales on the liberalised market	**TWh**	**n.a.**	**n.a.**	**n.a.**	**133.3**	**140.1**	**141.9**	
EDF	TWh	n.a.	n.a.	n.a.	103.2	102.7	98.1	
	%	**n.a.**	**n.a.**	**n.a.**	**77.4**	**73.3**	**69.1**	
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	11.7	7.0	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**8.35**	**4.93**	
Others	TWh	n.a.	n.a.	n.a.	30.1	25.7	36.8	
	%	**n.a.**	**n.a.**	**n.a.**	**22.6**	**18.3**	**25.9**	

Power Consumption on Regulated Market - National companies

Figures are estimated by Enerdata and based on the energy regulator's data.

	Unit	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**CAGR 04/09**
Sales on the regulated market	**TWh**	**n.a.**	**n.a.**	**n.a.**	**291.9**	**298.5**	**288.9**	
EDF	TWh	n.a.	n.a.	n.a.	291.9	284.4	280.9	
	%	**n.a.**	**n.a.**	**n.a.**	**100.0**	**95.3**	**97.2**	

Power Consumption on Regulated Market - Presence of European utilities

	Unit	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**CAGR 04/09**
Sales on the regulated market	**TWh**	**n.a.**	**n.a.**	**n.a.**	**291.9**	**298.5**	**288.9**	
EDF	TWh	n.a.	n.a.	n.a.	291.9	284.4	280.9	
	%	**n.a.**	**n.a.**	**n.a.**	**100.0**	**95.3**	**97.2**	

Power Customers

	Unit	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**CAGR 04/09**
Customers	**000's**	**33,035**	**33,500**	**33,600**	**33,700**	**34,500**	**34,754**	**1.02%**
EDF	000's	26,600	27,000	27,000	28,300	26,438	26,427	-0.13%
	%	**80.5**	**80.6**	**80.4**	**84.0**	**76.6**	**76.0**	**-1.14%**
GDF SUEZ	000's	n.r.	n.r.	n.r.	209	589	925	
	%	**n.a.**	**n.a.**	**n.a.**	**0.62**	**1.71**	**2.66**	
E.ON	000's	n.r.	n.r.	n.r.	n.r.	127	n.a.	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**0.37**	**n.a.**	
Others	000's	6,435	6,500	6,600	5,191	7,346	7,402	2.84%
	%	**19.5**	**19.4**	**19.6**	**15.4**	**21.3**	**21.3**	**1.80%**

#: All notes are available on page 30

2.5 Prices

Wholesale Prices

Powernext, the French power exchange, was created in November 2001.
Products are Powernext Day-Ahead (68 active members) and Futures (41 active members).
Most of the wholesale activity takes place over-the-counter through direct transactions. The carbon exchange, created in 2005, was acquired by NYSE Euronext in December 2007.

In 2009, Powernext and EEX (German stock exchange) merged to create EPEX Spot (50% each) and EPD Futures (80% EEX, 20% Powernext). In 2009, the total volumes traded on the European power exchange reached 196.3 TWh (Germany-Austria, France and Switzerland areas), 52.6 TWh of which was in France. The average base price for France was €43/MWh (2009), down from €64/MWh in 2008. In the first four months of 2010, the average price reached €46.4/MWh. The Belgian energy stock-exchange, Belpex, was also party to the merger. Consequently, there is a common wholesale price for all those countries.

	Unit	2005	2006	2007	2008	2009	2010	CAGR 05/10
Spot price of electricity (Powernext/FR)	**€/ MWh**	**46.7**	**49.3**	**40.9**	**64.0**	**43.0**	**46.4**	**-0.14%**

Final Prices

Since the law of 10 February 2000 regarding the modernisation and development of public electricity services, a tax on electricity prices has been set up. It is called 'contribution to the public service of electricity' (**CSPE**). The tax is aimed at offsetting costs incurred by electricity companies because of a uniform electricity price throughout the country and for purchase tariffs on electricity produced from renewables or cogeneration. In 2008, the provisional amount of the CSPE was €1,640m. In 2009, it reached €1,870m, 61% of which was used to ensure a uniform electricity price and 35% to cover the purchase obligation of the electricity produced from cogeneration and renewable energies. Since 2004 that contribution has equalled €4.5/MWh.

In August 2008 and August 2009, regulated tariffs increased by 2% and 1.9%, respectively.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Industry	**€c/ kWh**	**6.2**	**6.2**	**6.2**	**6.3**	**6.7**	**7.7**	**4.46%**
Residential	**€c/ kWh**	**11.4**	**11.4**	**11.5**	**11.4**	**11.6**	**11.6**	**0.31%**

#: All notes are available on page 30

2.6 Power plants

Recent and planned major power plants

Utility	Site	Fuel	Technology	Capacity (MW)	Commissioning year	Investment	Stake
E.ON	Emile Huchet-7	Gas	CCGT	860	2010	€470m	100%
E.ON	Lacq	Gas	CCGT	860		€500m	100%
EDF	Arrighi-2	Gas		125	2007		100%
EDF	Blenod	Gas	CCGT	440	2010		100%
EDF	Flamanville	Nuclear	EPR	1444	2012	€3300m	87%
EDF	Montereau	Gas		374	2010		100%
EDF	Penly	Nuclear	EPR	998	2017		38%
EDF	Salles-Curan	Wind		87	2009		50%
EDF	Vaires sur Marne	Gas	CCGT	185	2009		100%
EDF	Vaires sur Marne	Oil		370	2008		100%
Endesa	Saint Avold	Gas	CCGT	800	2009	€470m	100%
Enel	Flamanville	Nuclear	EPR	206	2012		
Enel	Penly	Nuclear	EPR	333	2017	€388m	13%
GDF SUEZ	Dunkerque (DK6)	Gas	CCGT	790	2005		100%
GDF SUEZ	Fos-sur-Mer (CombiGolfe)	Gas	CCGT	425	2010	€250m	100%
GDF SUEZ	Fos-sur-Mer (CyCoFos)	Gas	CCGT	480	2009	€300m	100%
GDF SUEZ	Montoir-de-Bretagne	Gas	CCGT	430	2010	€200m	100%
GDF SUEZ	Penly	Nuclear	EPR	885	2017		33%
Iberdrola	Villers Champagne	Gas	CCGT	1100	2013	€500m	100%
Verbund	Pont-sur-Sambre	Gas		412	2009		45%

#: All notes are available on page 30

3. Gas Activities

3.1 Market

Turnover

Figures are estimated by Enerdata, and correspond to the sum of turnover for each customer segment, calculated as the product of the average price and average sale for each segment.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Gas business	**€m**	**13,567**	**16,059**	**18,788**	**17,574**	**21,839**	**18,488**	**6.38%**

Employees

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Gas business	**empl.**	**26,000**	**26,000**	**26,000**	**26,000**	**30,600**	**n.a.**	

#: All notes are available on page 30

3.2 Supply

Gas Supply

Imports reached 45.5 bcm in 2009. They mainly came from Norway, the Netherlands, Algeria and Russia. LNG imports mainly came from Nigeria, Egypt and Qatar. Despite the rapid development of wholesale markets (mainly the NBP in the UK), gas supply is still largely dominated by long-term contracts with Gazprom, Sonatrach, Statoil or Gas Terra.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Total	**TWh**	**537.1**	**517.5**	**502.7**	**486.8**	**504.1**	**481.3**	**-2.17%**
GDF SUEZ	TWh	n.r.	n.r.	n.r.	289.3	294.1	274.1	
	%	**n.a.**	**n.a.**	**n.a.**	**59.4**	**58.3**	**56.9**	
EDF	TWh	n.r.	3.2	9.3	17.9	19.2	18.5	
	%	**n.a.**	**0.61**	**1.85**	**3.68**	**3.81**	**3.84**	
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	6.8	n.a.	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**1.34**	**n.a.**	
Others	TWh	n.a.	514.3	493.4	179.6	184.1	188.7	
	%	**n.a.**	**99.4**	**98.1**	**36.9**	**36.5**	**39.2**	

#: All notes are available on page 30

3.3 Infrastructures

Gas Transported

Transported volumes correspond to networks operated by **GRTgaz** and **TIGF** (Total Infrastructures Gaz France).
GRTgaz, GDF SUEZ's wholly-owned subsidiary, has been in charge of the gas transmission network in France since early 2005. It transported 659 TWh in 2009. In accordance with European directives, network activities are managed independently from GDF SUEZ's other operations (production and supply).

In 2008 and 2009, transported volumes are estimated: GRTgaz represents 85% of the total and the remaining is attributable to TIGF.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Transported volumes	**TWh**	**818.0**	**837.0**	**808.0**	**785.0**	**797.6**	**775.3**	**-1.07%**
Distributed volumes	**TWh**	**537.1**	**517.5**	**502.7**	**486.8**	**504.1**	**481.3**	**-2.17%**

Gas Network

Imported gas is introduced into the French territory through six entrance points, including four gas pipelines interconnected with the Belgian, Spanish and German networks and two LNG terminals (treating imported gas from Algeria, Trinidad and Tobago, Egypt and Nigeria).
GDF SUEZ accounts for a large part of total gas imports while Total accounts for around 5%. GDF SUEZ has a gas supply contract with Sonatrach, recently extended until 2019.

The gas pipeline linking Irun, in the north of Spain, to Arcangues, close to Biarritz, was commissioned at the end of 2005, at a cost of €30m. The gas pipeline is 28-km long and has an initial capacity of 0.5 bcm/year. First capacity allocation at the interconnection point of Larrau (managed by TIGF and Enagas) has been approved by the regulators (CRE and CNE). In November 2008, an "open subscription period" was organised for existing and future capacities: in the short term (April 2009 - March 2010) and in the long term (until March 2013). Capacity allocation for the period of April 2010 - March 2013 occurred in end-2009.

GRTgaz owns and operates a transmission network of about 32,200 km in 2009. **TIGF** owns the remaining 4,900 km, around 13% of the French network. **GrDF** which was created in January 2008, owns and operates a distribution network of about 190,830 km (2009).

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Transmission pipelines	**km 000's**	**35.8**	**36.5**	**36.2**	**36.6**	**36.9**	**37.1**	**0.74%**
GDF SUEZ	km 000's	n.r.	31.6	31.6	31.7	32.0	32.2	
	%	**n.a.**	**86.6**	**87.4**	**86.6**	**86.8**	**86.8**	
Distribution pipelines	**km 000's**	**182.0**	**187.6**	**190.9**	**193.3**	**188.6**	**190.8**	**0.95%**
GDF SUEZ	km 000's	n.r.	n.r.	n.r.	185.8	188.6	190.8	
	%	**n.a.**	**n.a.**	**n.a.**	**96.1**	**100**	**100**	

#: All notes are available on page 30

LNG terminals

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Total gasification capacities	**bcm**	**15.7**	**15.7**	**17.2**	**17.2**	**17.2**	**17.2**	**1.84%**
GDF	bcm	15.7	15.7	17.2	17.2	n.a.	n.a.	
	%	**100**	**100**	**100**	**100**	**n.a.**	**n.a.**	
Fos-Tonkin	**bcm**	**5.5**	**5.5**	**7.0**	**7.0**	**7.0**	**7.0**	**4.94%**
GDF	bcm	0.1	0.1	0.1	0.1	n.a.	n.a.	
Montoir-de-Bretagne	**bcm**	**10.2**	**10.2**	**10.2**	**10.2**	**10.2**	**10.2**	**0%**
GDF	bcm	0.1	0.1	0.1	0.1	n.a.	n.a.	

Fos-Tonkin	The Fos-Tonkin terminal, commissioned in 1972, mainly receives LNG from Algeria and Egypt. The initial capacity of 5.5 bcm/year was temporarily increased to 7 bcm/year at end-2005. When construction of the Fos Cavaou LNG terminal is completed, the terminal's capacity will return to 5.5 bcm/year.
Montoir-de-Bretagne	The Montoir-de-Bretagne LNG terminal, commissioned in 1980, mainly receives LNG from Algeria, Nigeria and Egypt.

A third LNG terminal was commissioned in Fos-sur-Mer (Fos-Cavaou) in April 2010. GDF SUEZ holds a 71.2% shareholding in the Société du Terminal Méthanier de Fos-Cavaou (STMFC), which is in charge of construction of the facility. The remaining 28.8% are held by Total (France). The LNG terminal, with a capacity of 8.25 bcm/year, will only run at 20% of this capacity until new larger permits are granted by the French authorities.

#: All notes are available on page 30

3.4 Sales

Total Gas Sales

The natural gas demand increased on average by 1.5%/year and accounts for 15% of the total energy demand. More than half of consumption goes to the residential-tertiary sector, 26% to industry and 17% to power plants (2009).

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Gas sales to end-consumers	**TWh**	**507.2**	**488.2**	**474.2**	**457.6**	**474.4**	**480.6**	**-1.07%**
GDF SUEZ	TWh	n.r.	n.r.	n.r.	289.3	294.1	274.1	
	%	**n.a.**	**n.a.**	**n.a.**	**63.2**	**62.0**	**57.0**	
EDF	TWh	n.r.	3.2	9.3	17.9	19.2	18.5	
	%	**n.a.**	**0.65**	**1.96**	**3.91**	**4.05**	**3.85**	
E.ON	TWh	n.r.	n.r.	n.r.	n.r.	6.8	n.a.	
	%	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**1.43**	**n.a.**	
Others	TWh	n.a.	485.0	464.9	150.4	154.3	188.0	
	%	**n.a.**	**99.3**	**98.0**	**32.9**	**32.5**	**39.1**	
Gas input to power plants	**TWh**	**29.9**	**29.3**	**28.5**	**29.2**	**29.7**	**0.8**	**-52.0%**
Sales on the liberalised market	**TWh**	**157.1**	**182.5**	**207.1**	**236.9**	**240.4**	**237.6**	**8.62%**
GDF SUEZ	TWh	n.r.	n.r.	n.r.	39.4	30.4	30.4	
	%	**n.a.**	**n.a.**	**n.a.**	**16.6**	**12.6**	**12.8**	
EDF	TWh	n.r.	3.2	9.3	17.9	19.2	18.5	
	%	**n.a.**	**1.74**	**4.49**	**7.56**	**7.99**	**7.79**	
Sales on the regulated market	**TWh**	**380.0**	**335.0**	**295.6**	**249.9**	**263.7**	**243.7**	**-8.50%**
GDF SUEZ	TWh	380.0	335.0	295.6	249.9	263.7	243.7	-8.50%
	%	**100**	**100**	**100**	**100**	**100**	**100.0**	**0%**

Sales on the liberalised market — Gas input to power plants are included in liberalised sales.

Gas Customers

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Customers	**000's**	**11,343**	**11,425**	**11,493**	**11,519**	**11,300**	**n.a.**	
GDF SUEZ	000's	n.r.	n.r.	n.r.	11,004	10,638	10,394	
	%	**n.a.**	**n.a.**	**n.a.**	**95.5**	**94.1**	**n.a.**	
EDF	000's	n.r.	13	40	120	418	537	
	%	**n.a.**	**0.11**	**0.35**	**1.04**	**3.70**	**n.a.**	

#: All notes are available on page 30

3.5 Prices

Wholesale Prices

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Spot price of natural gas (Zeebrugge/BE)	**€/ MWh**	**12.0**	**18.8**	**19.6**	**17.4**	**20.7**	**13.5**	**2.38%**

Final Prices

Since most of the gas (85%) is bought under long-term contracts, average gas price levels follow those of their respective oil competitors on the various markets, which led GDF SUEZ to increase its tariffs according to the trend in oil prices and the exchange value for the dollar.
Gas tariffs rose by 6.3% in April 2008 and by 5% in August 2008. This decision reflects the soaring evolution of gas prices on international markets. The large reduction in oil prices since July 2008 should result in a decrease in gas prices as of April 2009.

	Unit	2005	2006	2007	2008	2009	2010	CAGR 05/10
Industry	**€c/ kWh**	**2.3**	**2.8**	**2.6**	**3.6**	**2.7**	**2.9**	**4.75%**
Residential	**€c/ kWh**	**4.1**	**4.8**	**4.9**	**5.4**	**5.2**	**5.1**	**4.56%**

#: All notes are available on page 30

4. CO2

CO2 Emissions

The "Climate Plan" adopted in July 2004 to reinforce the National Programme against Climate Change (PNLCC) was revised in 2006. The objective of the Plan is to ensure the stability of greenhouse gas emissions by 2010 (compared to their 1990 level) through measures leading to savings of 72.3 MtCO2 per year. In 2007, total emissions were 4% lower than the Kyoto target and dropped by 5.8% compared to 2005.

In December 2004, France's first National Allocation Plan allocated 156.5 MtCO2/year to 1200 sites over the period 2005-2007 (126 MtCO2 without new entrant reserves). Real emissions were 17% lower than the quotas.
The Plan for the period 2008-2012 sets a total quota of 132.8 MtCO2/year for the facilities concerned, of which 45% related to combustion installations. In 2009, verified CO2 emissions from combustion installations were slightly below the quota (-3%), at 55 Mt, while total emissions were 14% lower than the annual quota for 2009, reaching 111 Mt.

	Unit	2004	2005	2006	2007	2008	2009	CAGR 04/09
Total Amount of CO2 Allocated (Combustion) #6	**MtCO2**	**n.a.**	**73.1**	**72.7**	**72.6**	**57.6**	**56.8**	
EDF	MtCO2	n.a.	23.5	23.5	23.5	16.6	16.6	
	%	**n.a.**	**32.1**	**32.3**	**32.4**	**28.8**	**29.2**	
Real emissions under ETS perimeter	**MtCO2**	**n.a.**	**60.6**	**55.0**	**55.6**	**56.3**	**48.8**	
EDF	MtCO2	n.a.	n.a.	n.a.	20.3	18.2	19.0	
	%	**n.a.**	**n.a.**	**n.a.**	**36.5**	**32.4**	**39.0**	
Gap (real emissions minus allocated) #7	**MtCO2**	**n.a.**	**-12.5**	**-17.7**	**-17.0**	**-1.3**	**-8.0**	
EDF	MtCO2	n.a.	n.a.	n.a.	-3.2	1.7	2.4	
Real Emissions per kWh produced	**gCO2/ kWh**	**78**	**93**	**86**	**89**	**85**	**90**	**2.90%**
EDF	gCO2/ kWh	42	45	40	43	38	n.a.	
Number of sites under ETS perimeter	**Sites**	**n.a.**	**764**	**767**	**770**	**720**	**694**	

#: All notes are available on page 30

5. Notes

#1: Correspond to liberalised volumes compared to eligible consumption.
#2: Excluding autoproducers.
#3: of which 3,710 km of underground circuits (2009).
#4: Excluding autoproducers.
#5: Excluding autoproducers.
#6: Corresponds to combustion installations with a rated thermal input exceeding 20 MW.
#7: Positive figures mean CO_2 emissions were higher than amounts allocated, while negative figures indicate that CO_2 emissions remained lower than the allocated quotas.

#: All notes are available on page 30

6. Table of Abbreviations

000's	thousands
€c	Euro cents
€m	Euro millions
bcm	billion cubic meters
CAGR	Compound Annual Growth Rate
Cust./ Empl.	Customers / Employee
empl.	employees
ETS	Emission Trading Scheme
gCO2	gram of CO2
HHI	Herfindahl-Hirschman Index
km	kilometres
kWh	Kilo Watt hours
mcm	million cubic meters
MtCO2	million tons of CO2
MW	mega Watt
MWh	mega Watt hours
TWh	tera Watt hours

#: All notes are available on page 30