Electricity and gas market observatory

1st Quarter 2007

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Introduction

Since July 1st 2004, all electricity and gas consumers can be eligible according to their consumption site, as long as all or part of the electricity or gas consumed is designed for non-residential use.

The purpose of the observatory is to provide the general public with indicators for monitoring market deregulation. It both covers the wholesale and retail electricity and gas markets in Metropolitan France.

This observatory is updated every three months and data are available on CRE website (www.cre.fr).

It completes the information already published by CRE:

- practical information for eligible customers : consumer guide, list of suppliers,
- communications regarding markets running; CRE's annual activity report.

Anticipating the global market opening on the 1st of July 2007, CRE released an informative website for residential customers: www.energie-info.fr

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The electricity market

The retail electricity market

1. Introduction

The deregulation of the French electricity market took place in several stages :

- In June 2000, all sites with annual electricity consumption over 16 GWh became eligible.
- In February 2003, all sites with annual electricity consumption over 7 GWh became eligible.
- In July 2004, all companies and local government agencies became eligible.

Since July 1st 2004, all companies and local government agencies are free to choose their electricity supplier. Today, they represent 4.7 million customer sites with an annual electricity consumption of around 310 TWh.

Each eligible client has the choice between two different types of contract:

- Contracts under regulated tariffs (offered by incumbent suppliers only)
- Contracts at market prices (offered by incumbent suppliers and alternative suppliers). A client has access to this kind of contracts provided he has exercised his eligibility.

The 7th of December law gives the client a new choice. Clients who have chosen contracts at market prices are allowed to ask their provider to benefit from the transitory regulated tariff for market adjustment (TaRTAM), during a maximal period of two years. Clients have been authorized to make their demand from the 3rd of January until the 1st of July. The TaRTAM equals to the regulated tariff applicable to a site with similar characteristics, taxes excluded, increased by 123% for the large sites, 120% for the medium sites, and 110% for the small sites.[1]

[1] The segments on which increases are applicable are given for information.

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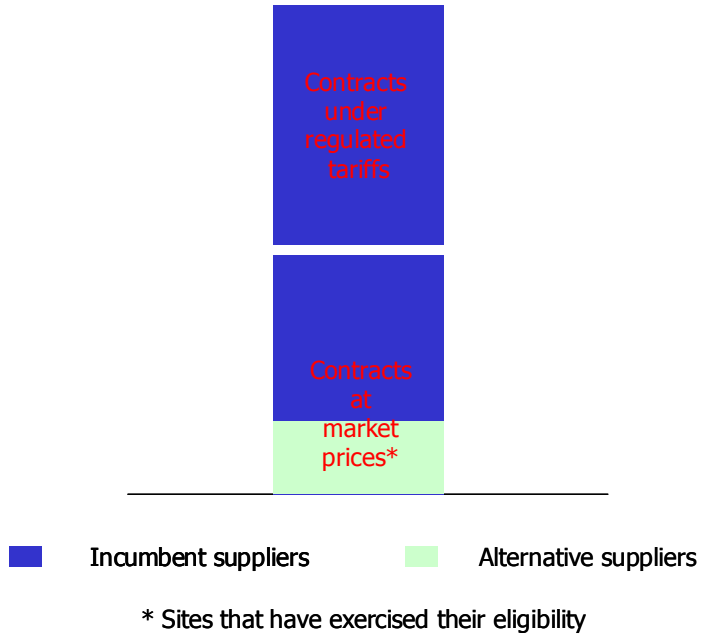
Distribution of electricity contracts for non-residential customers in France
- illustrative diagram -



* Sites that have exercised their eligibility

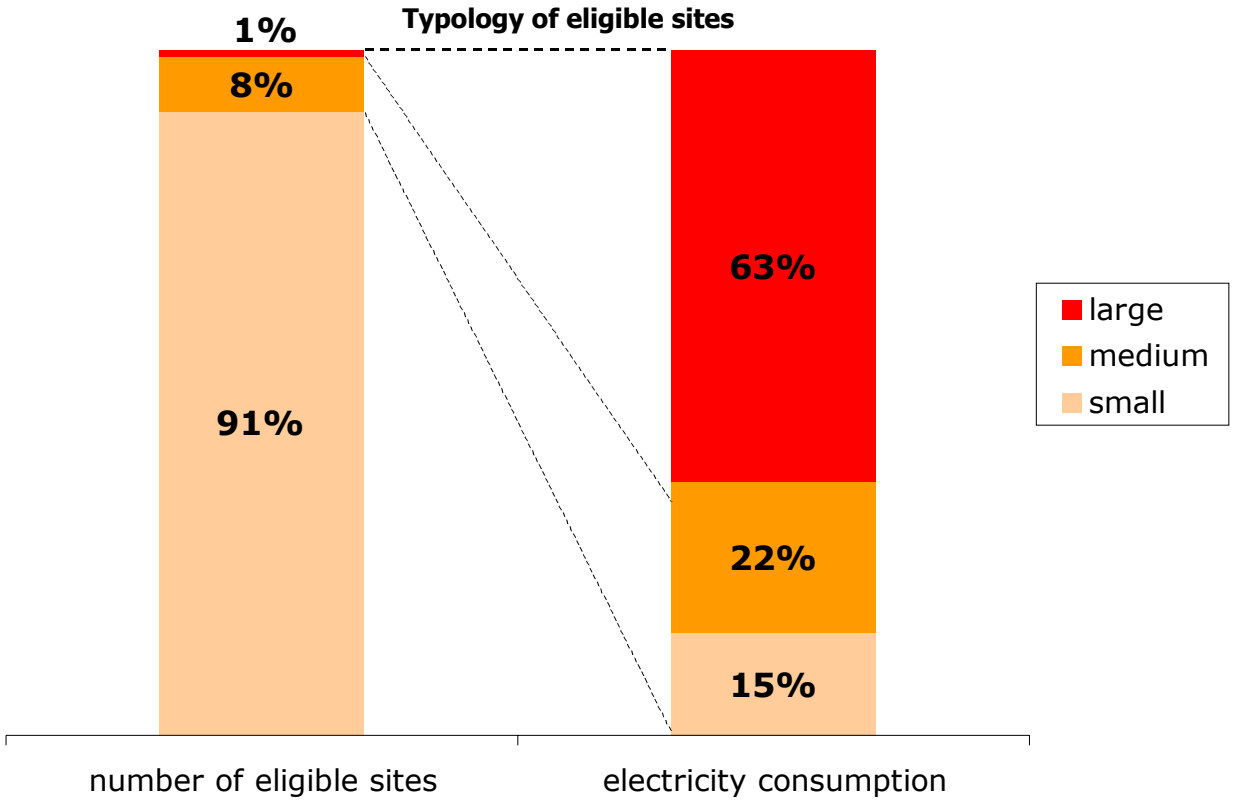
The data sources of the observatory originate from RTE and from the seven largest distribution system operators (EDF Réseau de Distribution, Electricité de Strasbourg, Gaz et Electricité de Grenoble, Régie du SIEDS, Usine d' Electricité de Metz, SICAE de l'Oise and Sorégies). These networks operators cover over 98% of French sites and national electricity consumption.

By agreement, the data regarding the number of sites for month M (or quarter Q) will include:

- *new site connections carried out during month M (of quarter Q).*
- *supplier changes requested during month M (quarter Q) and brought into effect on the 1st of month M+1 (quarter Q+1).*

Multi-suppliers sites are affected to their main supplier (transmission or distribution contract sites are affected to their balancing responsible entity).

2. Eligible customer segments and their respective weights



Sources: 2006 DSO, RTE – Analysis: CRE

The eligible customer market consists of three segments:

- ***Large sites**: high voltage sites whose subscribed power level is at least 250 kW. These sites include large industrial sites, hospitals, hypermarkets, large buildings, etc. (with an annual consumption generally over 1 GWh).*
- ***Medium-sized sites**: high voltage sites whose subscribed power level is less than 250 kW and low voltage sites whose subscribed power level is at least 36 kVA. These sites correspond to SME premises, for example (with an annual consumption generally between 0.15 GWh and 1 GWh).*
- ***Small sites**: low voltage sites whose subscribed power level is below 36 kVA. These sites correspond to the professional mass market (private professionals, trades, etc.). Their annual consumption is generally under 0.15 GWh.*

The large sites, although they only represent 1% of the sites in terms of number, they account for 63% of the total electricity consumption among eligible sites.

The small sites, although they represent 91% of the sites in terms of number, they only represent 15% of the total electricity consumption among eligible sites.

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3. Status at April 1st 2007

A. Summary table for the past two quarters

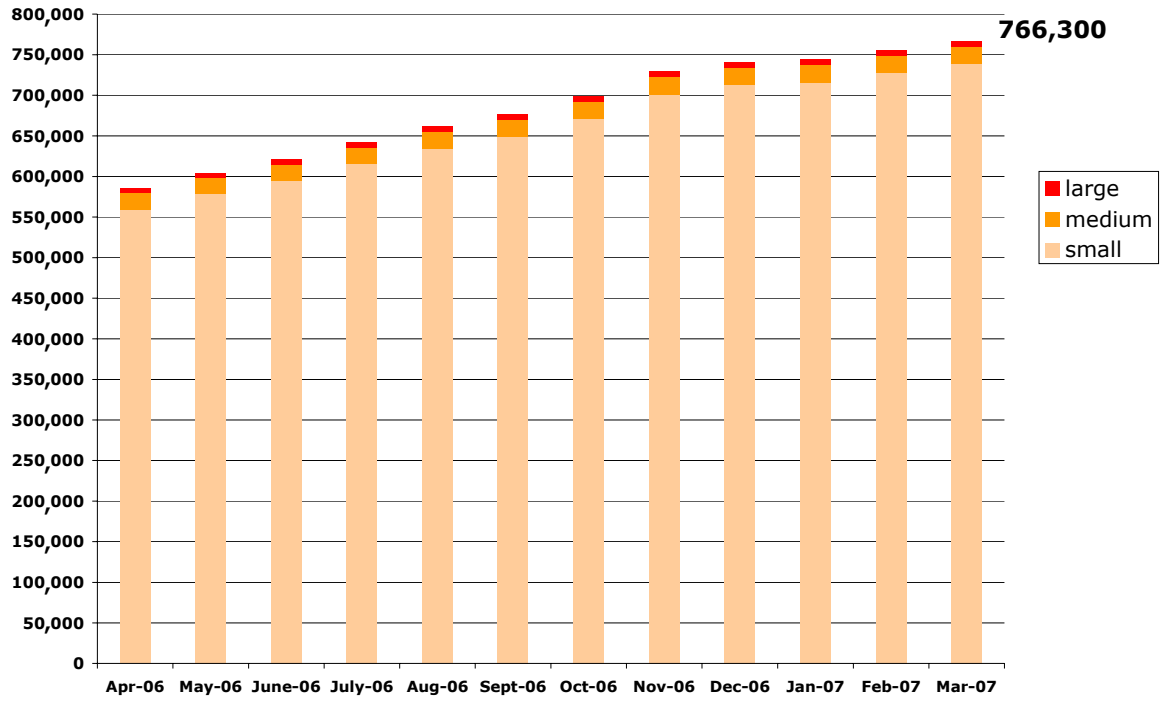
Situation (number of sites)	April 1st 2007	January 1st 2007
- eligible sites	4 700 000	4 700 000
- sites with contracts at market prices	**766 300**	**740 600**
- sites gained by alternative suppliers	**295 700**	**276 500**
- alternative suppliers' market share within all eligible sites	**6,3%**	**5,9%**

Sources: DSO, RTE – Analysis: CRE

Technical information: numbers of sites are rounded, but alternative supplier's market shares within all eligible sites are calculated from real figures.

B. Evolution of the number of sites with contracts at market prices

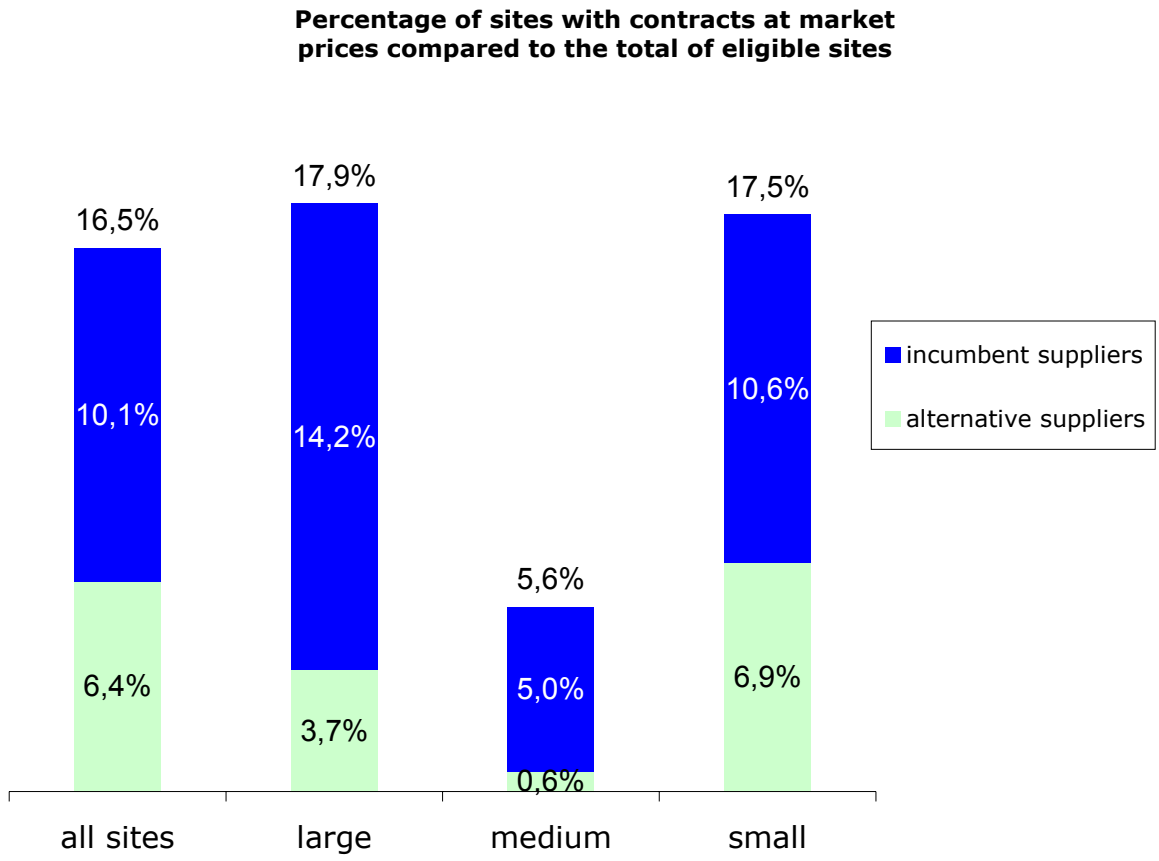
Number of sites with contracts at market prices



Sources: DSO, RTE – Analysis: CRE

On April 1st 2007, almost three years after the opening of the electricity market to competition for non-residentials, approximately 766, 300 sites have contracts at market prices.
During Q1 2007, the number of sites with contracts at market prices increased by 9,000 sites per month (compared to 21,000 sites per month in Q4 2006).

C. Eligibility's application rate and market shares on April 1st 2007



Sources: DSO, RTE – Analysis: CRE

Technical note: large sites data were refined since last quarter.

The eligibility's application rate is equal to the number of sites with contracts at market prices, compared with the number of eligible sites included in the targeted segment by supplier type.

On April 1st 2007, 16,5% of all eligible sites have contracts at market prices.
6,4% of all eligible sites have opted for an alternative supplier.
The intensity of competition is always particularly low on the segment of medium-sized sites**.**

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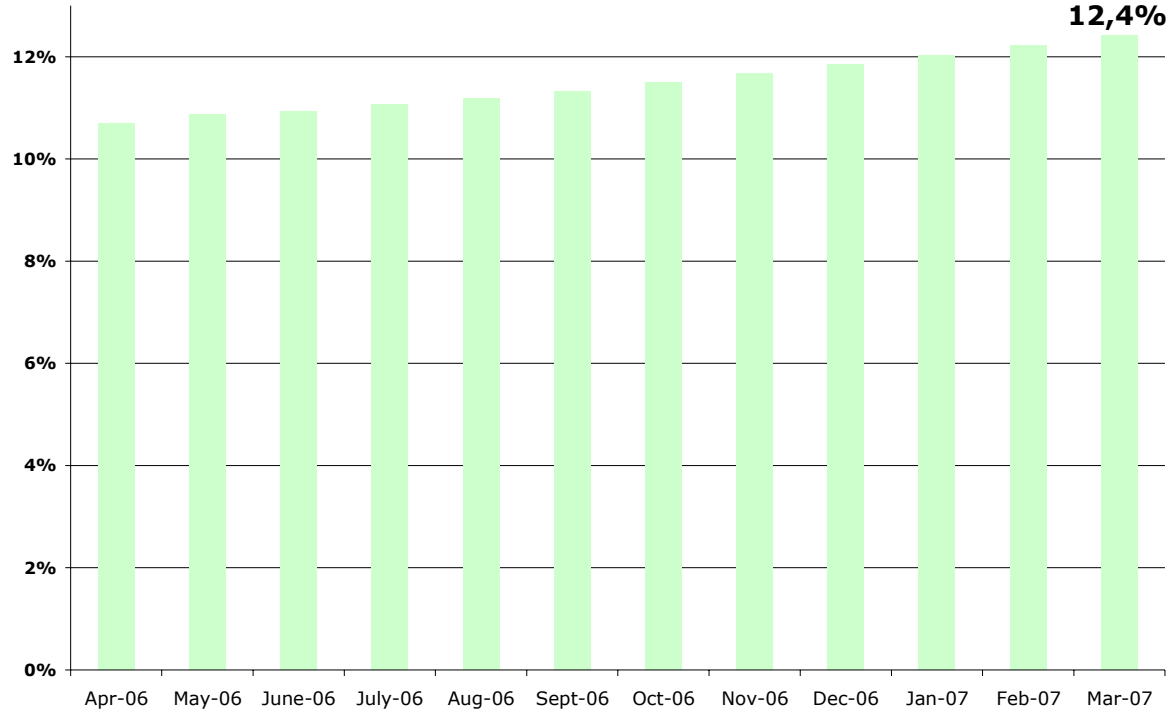
D. Alternative suppliers' market shares (electricity consumption) as of April 1st 2007

Evolution of alternative suppliers' market share
Compared with total eligible consumption
– over the last 12 months –



Sources: RTE – Analysis: CRE

The alternative suppliers' consumption market share is calculated each month over the last 12 months from RTE data on alternative balancing responsible entities.

E. Number of active alternative suppliers on April 1st 2007

	All sites	Large	Medium	Small
Number of active alternative suppliers	17	15	6	6

Sources : DSO, RTE – Analysis : CRE

Two large sites suppliers withdrew from the French market and one supplier emerged.

As a reminder, about 160 incumbent suppliers operate in France.

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4. Dynamic analysis: 1st Quarter 2007

A. Summary table for the last quarters

The gross adds per month are equal to the number of sites which have signed a contract within the given month.
The gross adds at market prices is a relevant indicator for measuring the commercial competitiveness of the different suppliers, in terms of acquisition of new sites.
For the rest of this paragraph, only the gross adds at market prices will be studied.

For a given alternative supplier, the gross adds are equal to :
- *The number of sites which have been connected*
- *The number of sites which have switched to that alternative supplier*

For a given incumbent supplier, the gross adds at market prices are equal to :
- *The number of sites which have newly signed a contract at market prices (either via a review of their contract agreement or via a connection)*
- *The number of sites which have switched to that incumbent supplier*

For a dynamic analysis, the gross adds at market prices is a more relevant indicator than the number of sites that have signed a contract at market prices. Indeed, in contrary to the latter, the gross adds take into account the number of sites that have switched suppliers.

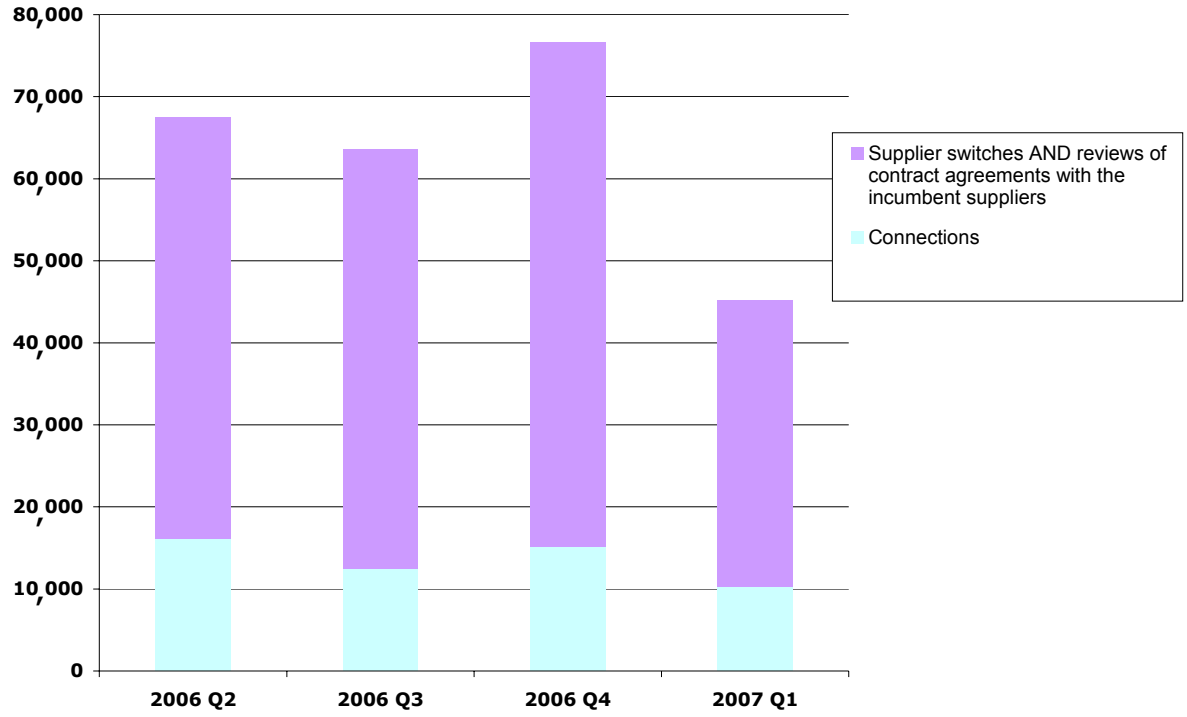
DURING QUARTER: (number of sites)	1st 2007 Quarter	4th 2006 Quarter
- gross adds at market prices	**45,200**	**76,700**
- gross adds for alternative suppliers	**27,000**	**35,200**
- alternative suppliers' market shares within all gross adds at market prices	**60%**	**46%**

Sources: DSO, RTE – Analysis: CRE

Technical note: number of sites are rounded, while alternative suppliers market shares within all gross adds at market prices are calculated from real data.

B. Gross adds at market prices for the last quarters

Decomposition of gross adds at market prices
- number of sites -



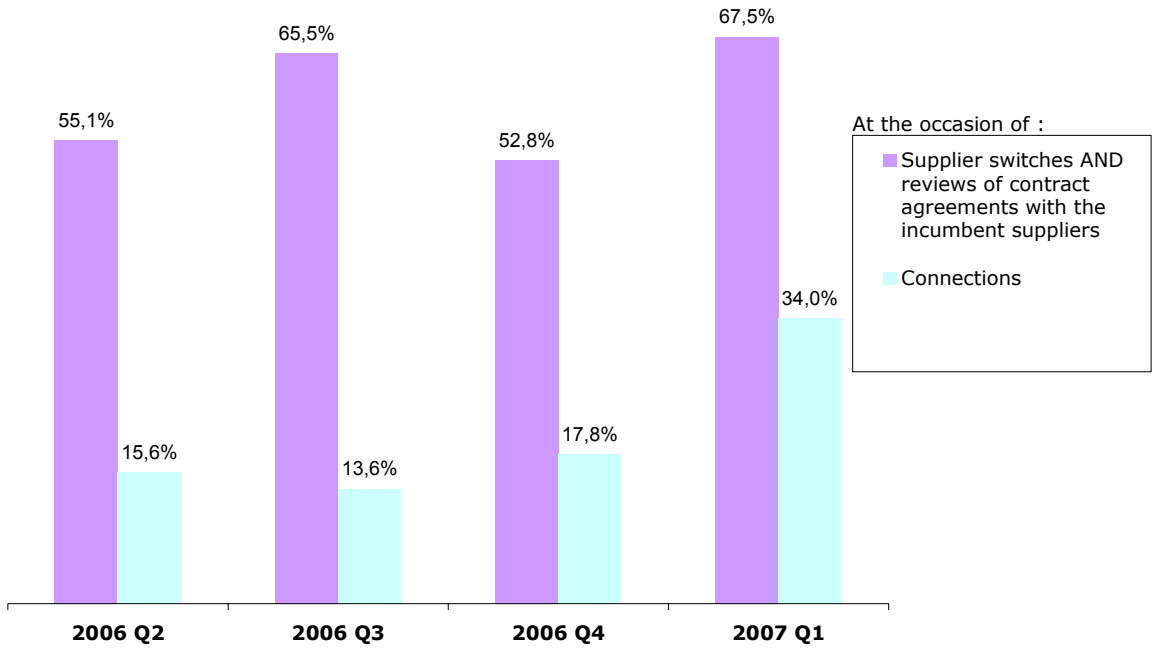
Sources: DSO, RTE – Analysis: CRE

Gross adds at market prices decreased by 41% between 2006 Q4 and 2007 Q1. Apart from an increase during the last quarter of 2006, they had been constantly decreasing since 2005 Q4.
Almost a fourth of gross adds are linked to a connection.

This slowdown is due on one hand to a reduction of the alternative suppliers' commercial activity because of the gross market prices growth, and on the other hand, to the main incumbent supplier commercial choice to limit its market new offers.

C. Alternative suppliers' market shares

Percentage of sites having signed a contract with an alternative supplier



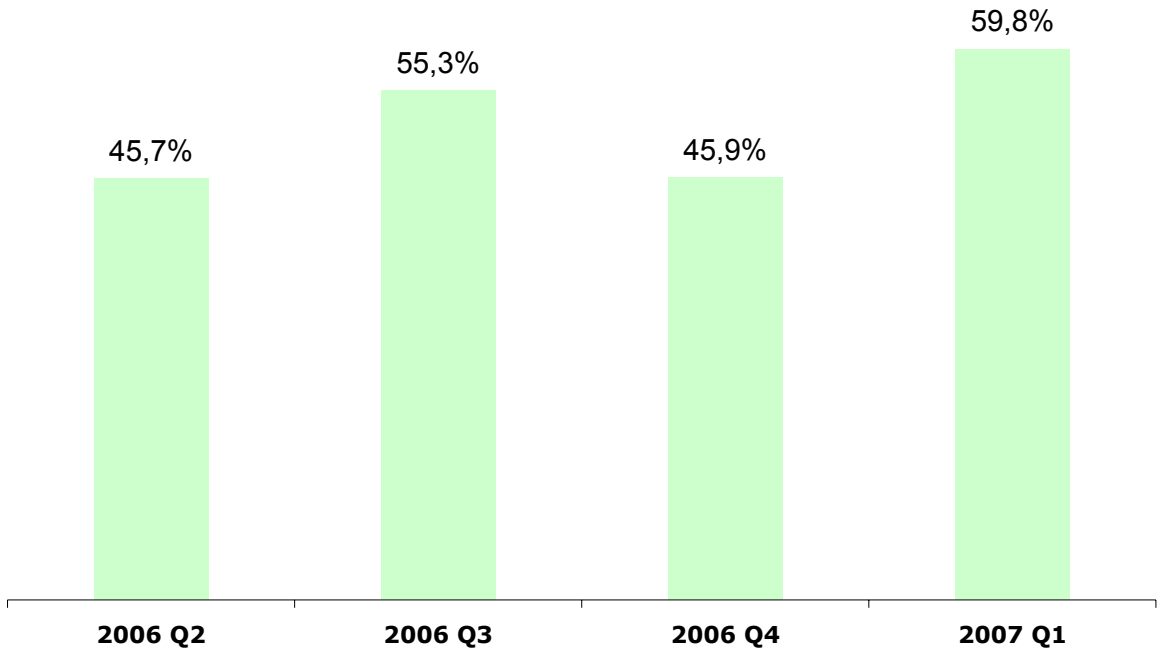
Sources: DSO, RTE – Analysis: CRE

Alternative suppliers market share on connections has increased to 34%.

On the segment of supplier switches and reviews of contact agreements, the alternative suppliers' market share has been increasing during 2007 Q1.

The alternative suppliers' market share on the overall segment of gross adds at market prices represents 59,8% at 2007 Q1. Therefore more than half sites having signed a contract at market prices choose an alternative supplier.

Percentage of sites having signed a contract at market prices with an alternative supplier



Sources: DSO, RTE – Analysis: CRE

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The wholesale electricity market

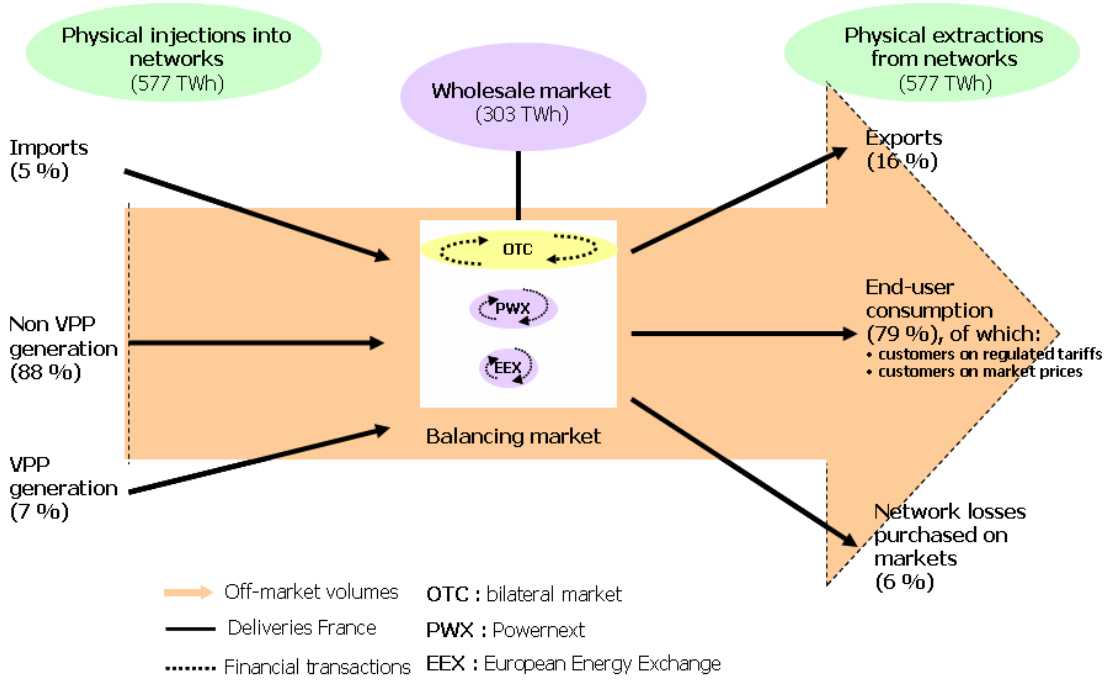
1. Introduction

Main steps in the French wholesale electricity market

- November 2000: CRE validated the initial version of the Balancing Responsible Entity (BR) contract[2]
- Early 2001: first purchases of losses on the market by RTE
- May 2001: first OTC quotations published regarding the French electricity market
- September 2001: first generation capacity auctions set up by EDF (VPP)
- November 2001: launch of the Powernext *Spot* market
- June 2004: launch of the Powernext *Futures* market
- August 2005: launch of the EEX France market (*Futures* with physical delivery)
- January 2006: implementation of explicit capacity auctions on interconnections (except for Switzerland)
- November 2006: publication of data regarding French electricity production by RTE (following an initiative by the *Union Française de l'Electricité*)

Presentation of the French wholesale electricity market

The graph below shows the different upstream and downstream segments, as well as the French wholesale electricity market's running. There is a differentiation between trading involving physical deliveries on the network (Deliveries in France) and purely financial trading. Volumes which are not traded through the wholesale market (off-market volumes) are also represented.



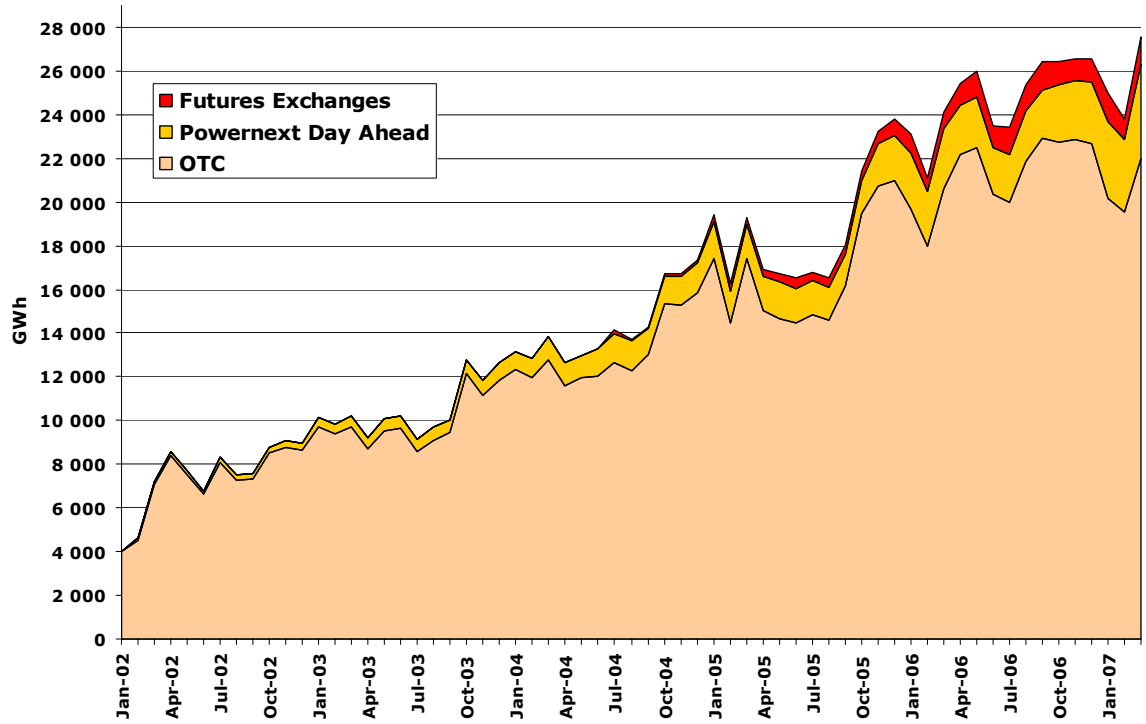
Source: CRE according to RTE 2006 data

[2] The balancing responsible entity is an intermediary between eligible customers and RTE. It is responsible for the financial risks associated with the adjustments that RTE must make to compensate for any gap between customers' supplies schedule and their actual consumption, in order to ensure the overall balance of the network.

In the 1st quarter of 2007, the total volume of French wholesale deliveries has slightly decreased compared to the previous quarter and was estimated at 76.4 TWh (compared to 79.6 TWh in the 4th quarter of 2006). It represented approximately 52% of injections or off-takes within the grid, compared with 54% in the 4th quarter of 2006.
These numbers do not represent traded volumes in the French wholesale market, but the physical deliveries between wholesale market actors in France observed during the quarter, which partly result from previous transactions. Precise information about the real wholesale market activity in France is currently not public. Nevertheless, the volumes exchanged on Powernext (see section 2.B.) give an indication for a part of the total volume traded in the French wholesale market.

Wholesale deliveries have increased strongly in October and slightly in November and December.

Volumes traded on the French wholesale electricity market
- deliveries in France -



Sources: RTE, PWX – Analysis: CRE

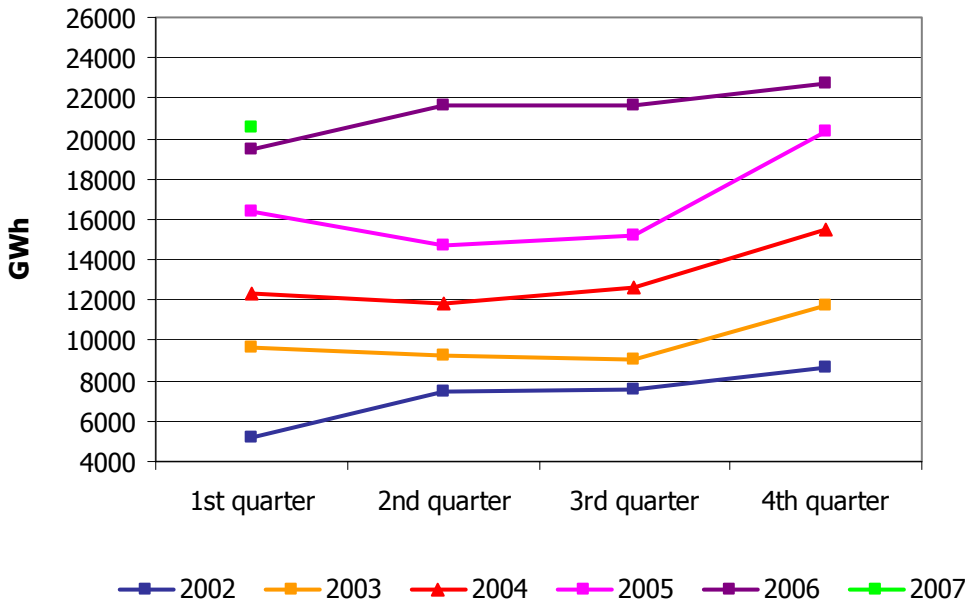
2. Traded volumes on the French wholesale electricity market and comparison with European markets

It is relevant to notice that, compared with national consumption, the trading volumes on the European power exchanges are still limited, except for NordPool. Despite the development of power exchange markets, most of the wholesale electricity trade still takes place through direct OTC trading or through intermediaries (brokerage companies and trading platforms).
Furthermore, the French wholesale electricity market includes both purely financial trading and trading involving physical deliveries of electricity on the French network.

OTC volumes estimate: block trading on the French market

Since volume data concerning bilateral trading are not public, the volume of block trading provides an estimate of the French OTC market liquidity[3].
As shown in the graph below, the volume of block trading grew steadily over the past five years. The volume in the 1st quarter of 2007 increased by 5.7% compared to the 1st quarter of 2006. The negotiated volumes reached an average monthly volume of 20.6 TWh in the 1st quarter of 2007 (compared with 19.4 TWh in the 1st quarter of 2006).

Block trading on the French wholesale electricity market
- average monthly volumes -



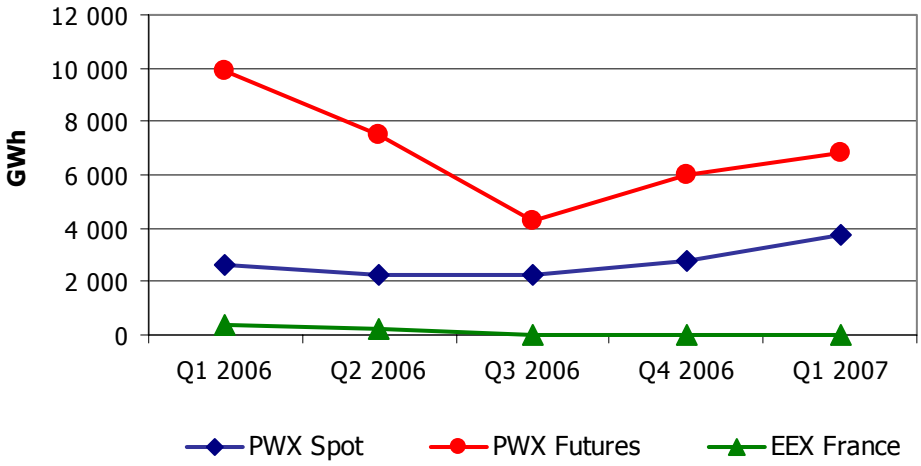
Source: RTE – Analysis: CRE

[3] It should be noticed that block trading corresponds to purchases/sales made privately on the French system, excluding sales to end customers (consumption sites). This estimate does not therefore include purely financial bilateral trading.

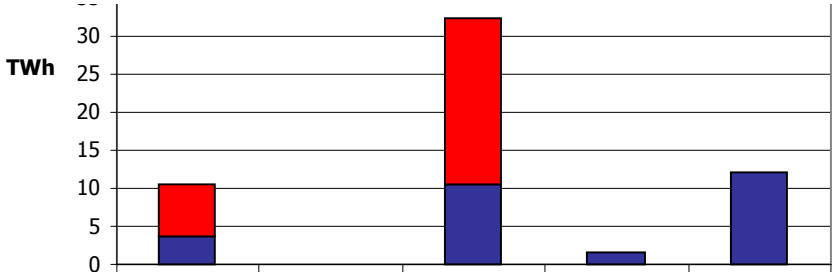
Volumes traded on the power exchange markets

As in the previous quarter, an increase of liquidity can be observed on Powernext *Futures* in the 1st quarter of 2007. The volumes exchanged on Powernext S*pot* have also increased over the same period. The volumes exchanged on EEX France were equal to zero during the whole period.

Average monthly volumes traded on PWX *Spot*, PWX *Futures* and EEX France (all maturities combined)



Average monthly traded volumes during the 2006 4th quarter on the main European power exchanges (spot & futures)



	PWX	EEX France	EEX	APX	Omel
Futures	6,8	0	21,9	0	0
Spot	3,7	0	10,6	1,6	12,1

Sources: PWX, EEX, APX, Omel – Analysis: CRE
The volumes indicated for EEX Futures and EEX France do not include OTC clearing transactions.

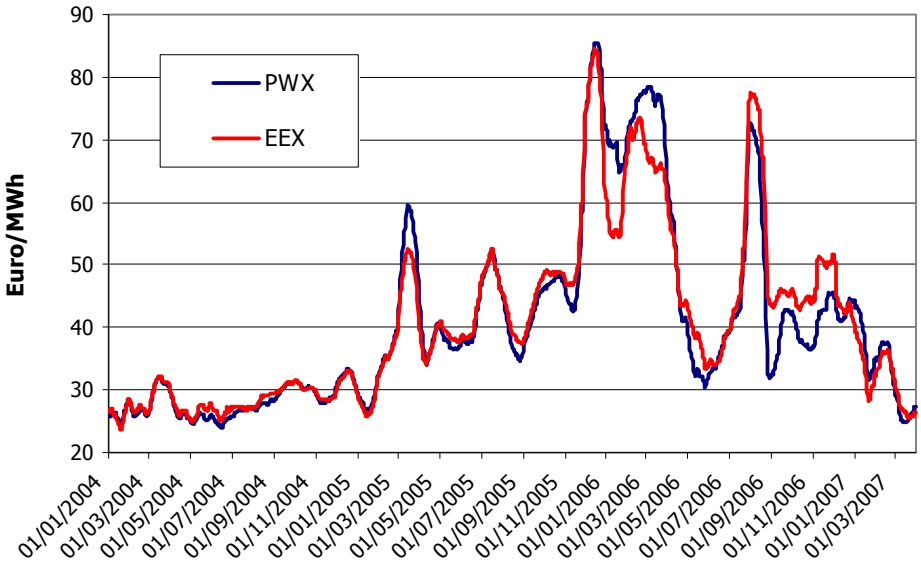
3. Prices on the French wholesale electricity market and European comparison

As prices of bilateral trading are not made public, this section covers power exchange trading only.

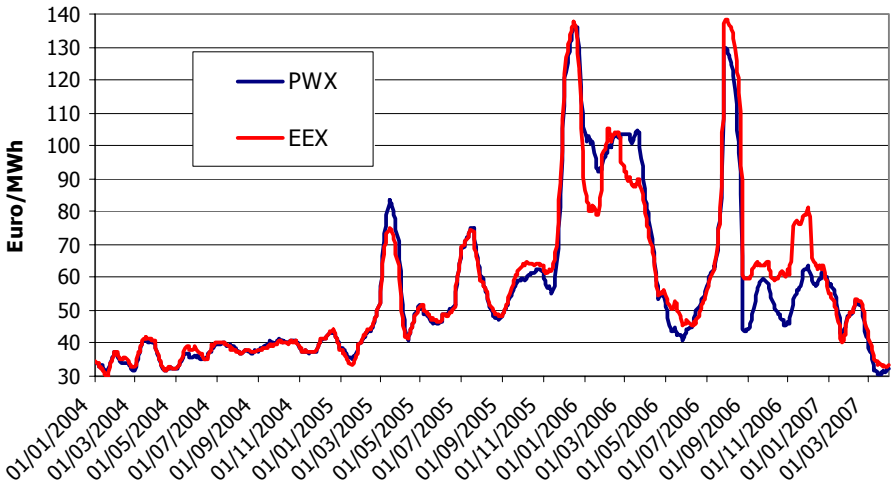
Spot prices

Baseload prices on Powernext have amounted to 30.59 €/MWh on average in the 1st quarter of 2007. They have decreased by 27% compared to the previous quarter and by 57% compared to the same quarter last year.
Spot prices in France were slightly higher than spot prices in Germany on average in Q1 2007.

Baseload Spot prices – 28 days sliding average



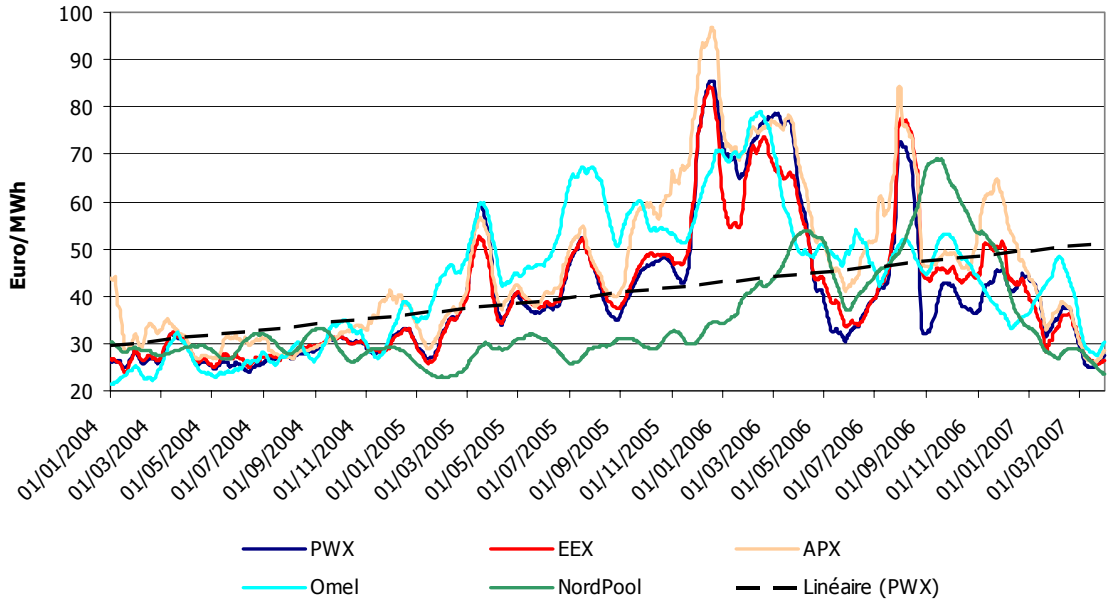
Peakload Spot prices – 20 days sliding average



Sources: PWX, EEX – Analysis: CRE

As shown in the graph below, spot prices during the 1st 2007 quarter across the main European power exchanges have decreased significantly. Prices were at around 30 €/MWh on average in March.

Baseload Spot prices in Europe – Monthly averages & trend curve (linear regression on PWX)

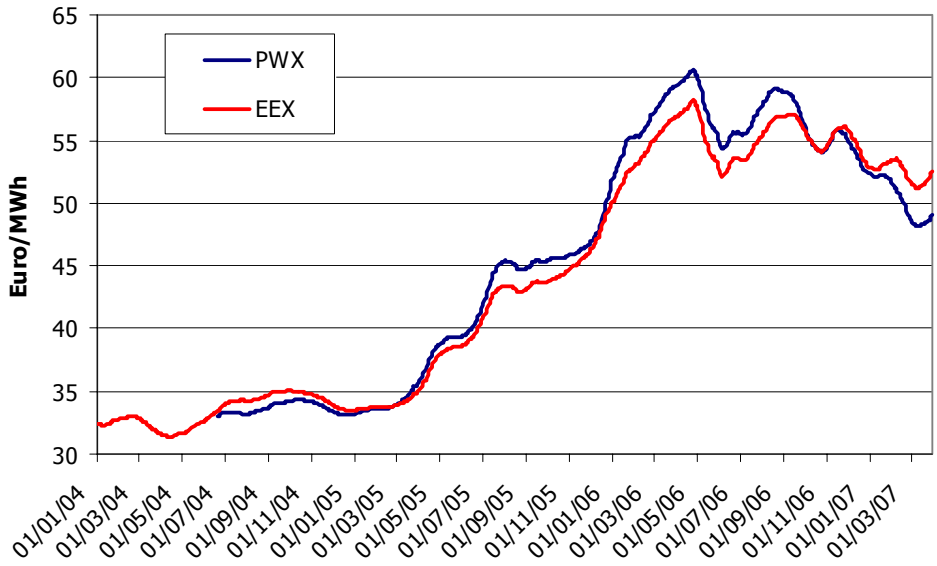


Sources: PWX, EEX, APX, Omel, NordPool – Analysis: CRE

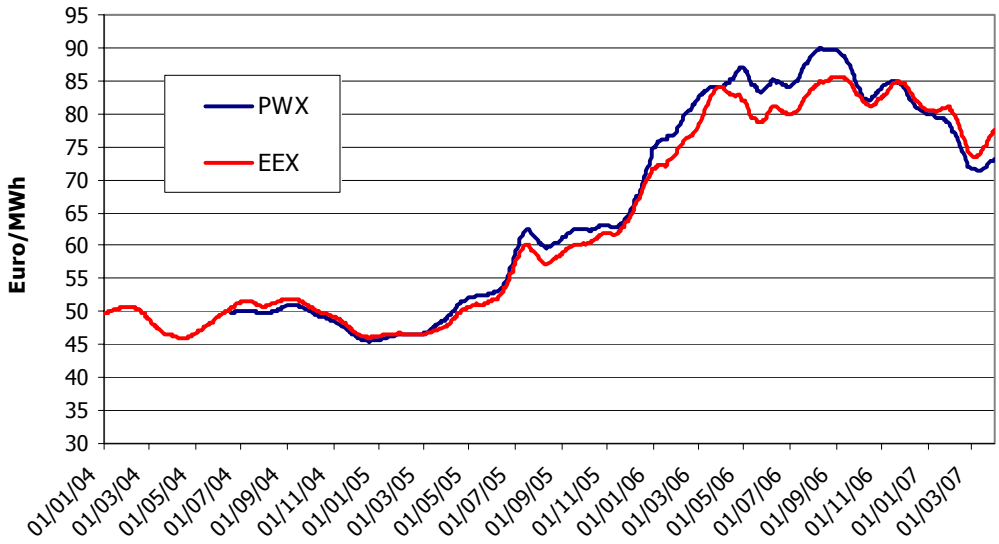
Futures prices

The price of the Cal 2008 baseload product (Y+1) on Powernext has decreased by 5% throughout the quarter. It went down from about 53 €/MWh beginning January to almost 46 €/MWh on the 20th of February, and then increased to almost 51 €/MWh in the end of March.
Cal 2008 prices remained lower in France than in Germany and the price differential between the two countries increased throughout the quarter, for base and peak load.

Annual futures prices Baseload – 28 days sliding average



Annual futures prices Peakload – 20 days sliding average

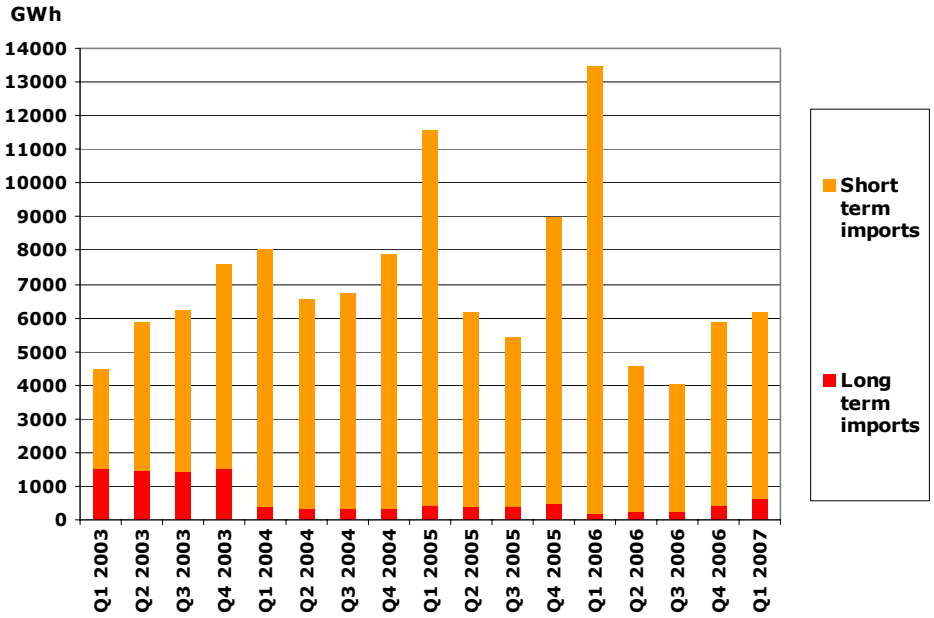


Sources: PWX, EEX – Analysis: CRE

4. Import and export volumes

Imports have increased by 4% in the 1st quarter of 2007 compared to the previous quarter. Nevertheless, they were 54% lower on average than in the same quarter last year.

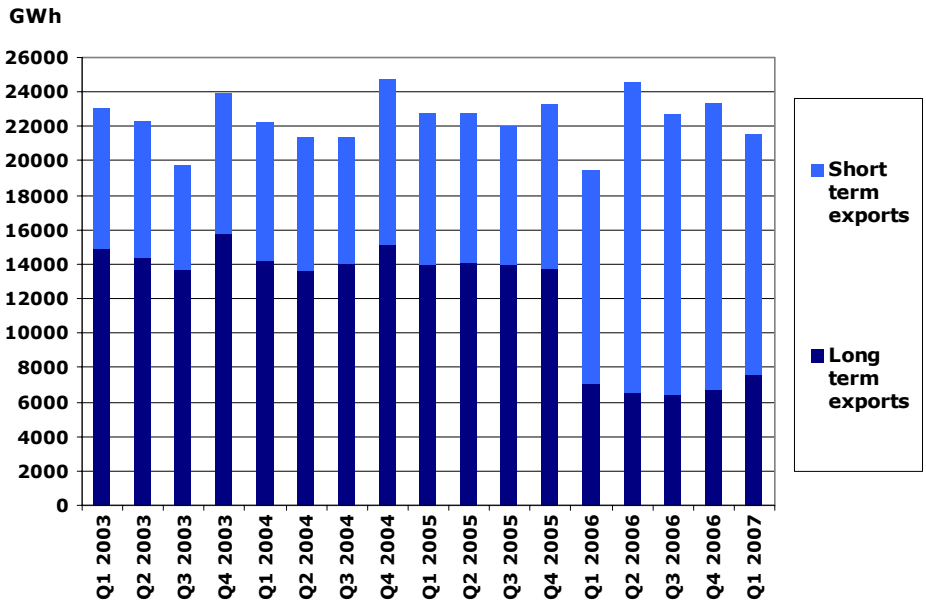
Total imports per quarter (including EDF)



Source: RTE – Analysis: CRE

Exports have decreased by 8% in the 1st quarter of 2007 compared to last quarter. They were 11% higher than exports observed in the same quarter last year.

Total exports per quarter (including EDF)



Source: RTE – Analysis: CRE

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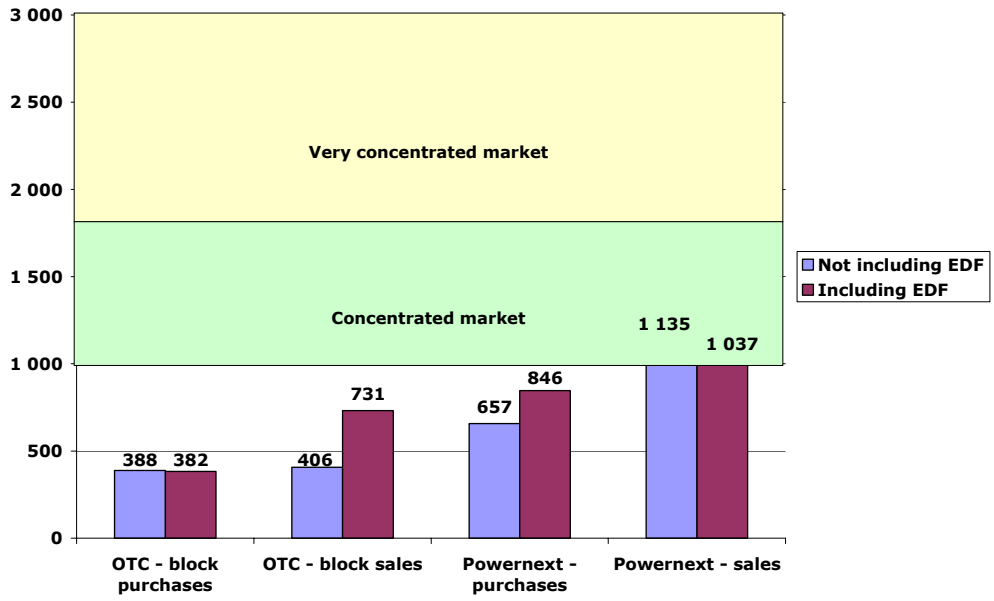
5. Concentration of the French electricity market

At the end of the 1st 2007 quarter, 101 balancing responsible entities were active on the French wholesale electricity market, 1 less than in the previous quarter. 55 balancing responsible entities were active on Powernext *Day Ahead* and 26 on Powernext *Futures*. One new member joined Powernext *Futures* while membership on Powernext *Day Ahead* stayed stable during the 1st quarter of 2007.

Concentration of the different French wholesale market segments

The graph below shows the Herfindahl-Hirschman Index (HHI)[4] which is used for the different French wholesale market segments.
During the 1st 2007 quarter, purchases and sales on the OTC market as well as purchases on Powernext stayed moderately concentrated market segments, whether the EDF group is taken or not into account. However, the sales segment on Powernext was concentrated this quarter.

HHI concentration index – wholesale electricity market
- 1st 2007 quarter -



Source: RTE – Analysis: CRE

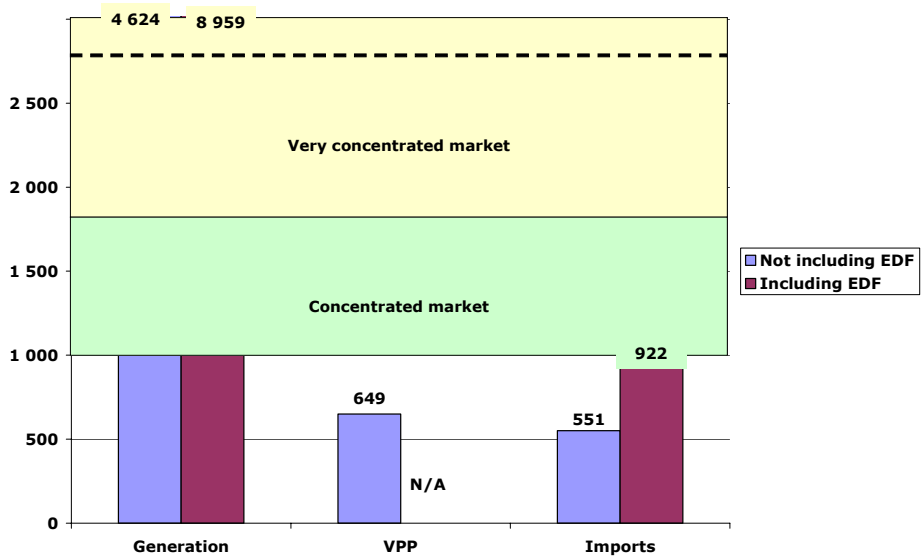
Concentration of the different upstream and downstream segments on the French wholesale electricity market

The following graphs show the concentration of the upstream (injections) and downstream (off-takes) markets.

[4] The HHI equals the sum of the actors' market shares squared, and measures market concentration (the higher the index, the more concentrated the market). Generally, a market is considered to be weakly concentrated if its HHI is below 1,000, and highly concentrated if it is over 1,800.
Given the specificities of the electricity market, this index should only be used cautiously as an indicator of the competition level. Indeed, regarding the electricity market, concentration and competition are not as directly linked as in most markets.

In terms of injections, generation is particularly concentrated, whether EDF is included or not. This reflects the low number of generators in France. The other segments (VPP, imports) have a relatively weak concentration.

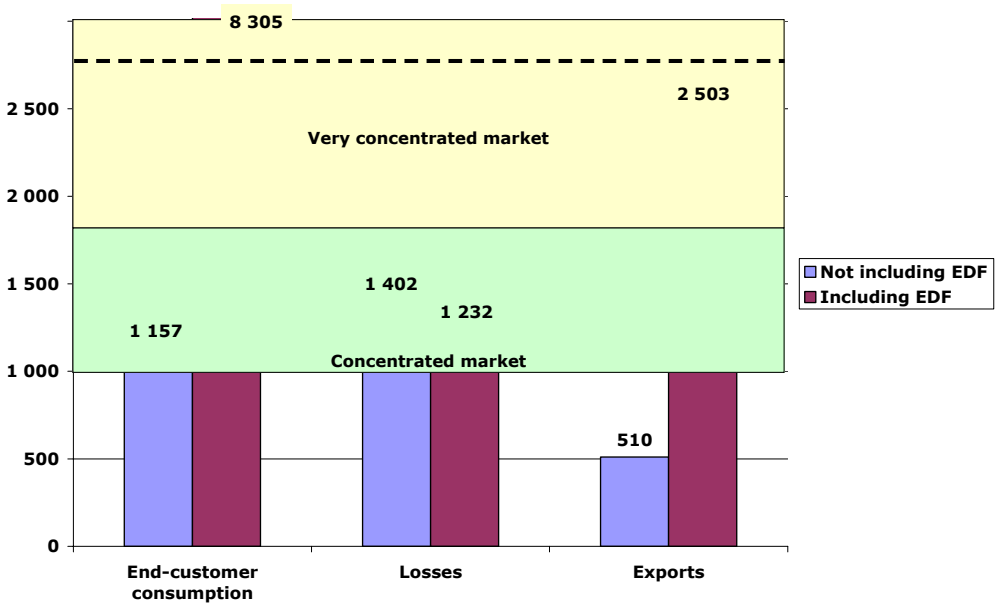
HHI concentration index – injections
- 1st 2007 quarter -



Source: RTE – Analysis: CRE

Sales to end customers and exports are highly concentrated when taking EDF into account, but are moderately concentrated when EDF is not included. Finally, the losses market is relatively concentrated, whether EDF is taken or not into account.

HHI concentration index – off-takes
- 1st 2007 quarter -



Source: RTE – Analysis: CRE

6. Striking facts of the 1st 2007 quarter

~~A.~~A decrease in prices due to soft temperatures

As in the previous quarter, temperatures have been higher on average for the season in most European countries, limiting demand. Thus, spot prices in most European countries were relatively low for the season. On the French exchange, very little extreme values have been observed during the period: hourly prices on Powernext have exceeded the 100 €/MWh level only during four hours in the first quarter of 2007.

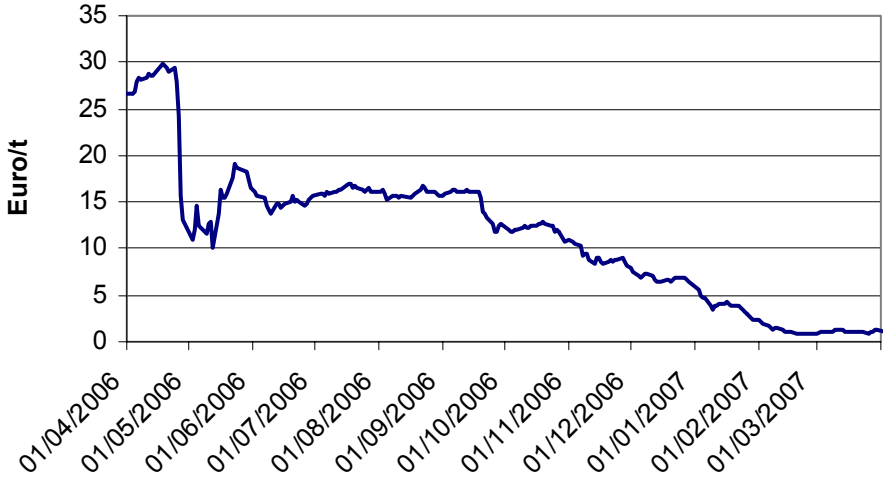
Soft temperatures also pushed down prices of the annual futures products for electricity and gas in January and February.

~~B.~~The collapse of CO_2 prices of phase I

The fall of phase I CO_2 prices (quotas for the period 2005-2007) continued throughout the first quarter of 2007, with prices at around 1 €/t from mid-February onwards.

Participants of the CO_2 market anticipate that measured emissions during the period 2005-2007 will be largely inferior to the number of quotas delivered. As quotas cannot be used in future periods, it is natural that prices converge to zero, as supply is superior to demand.

CO2 phase I price evolution on Powernext



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The gas market

The retail gas market

1. Introduction

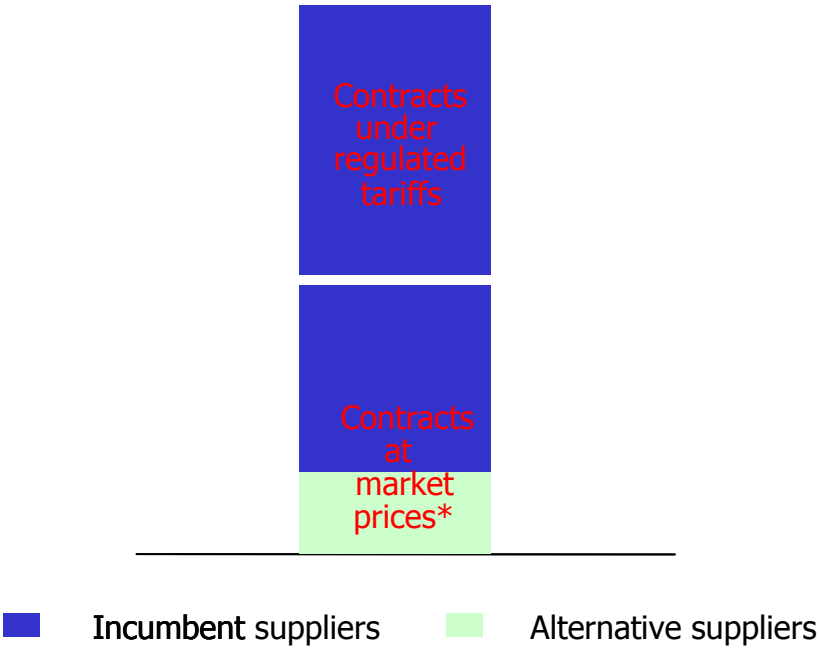
The deregulation of the French gas market took place in several stages:

- from August 2000, all sites with an annual gas consumption over 237 GWh and all electricity generators or simultaneous electricity and heat generators whatever their annual consumption level became eligible.
- from August 2003, all sites with an annual gas consumption over 83 GWh became eligible.
- from July 2004, all non-residential end consumers can choose freely their gas supplier. It accounts, at January 1st 2007, for 688,000 sites, with an annual gas consumption of approximately 382 TWh.

Each eligible client has the choice between two different types of contract :

- Contracts under regulated tariffs (offered by incumbent suppliers only)
- Contracts at market prices (offered by incumbent suppliers and alternative suppliers). A client has access to this kind of contracts provided he has exercised his eligibility.

Distribution of gas contracts for non-residential customers in France
- illustrative diagram -



* Sites that have exercised their eligibilities

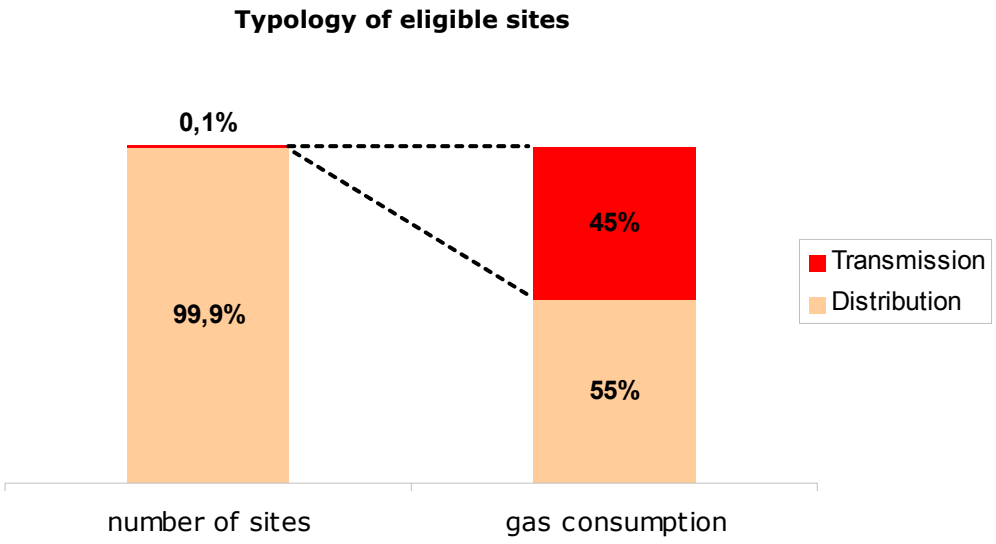
N.B : CRE has redefined the terms of "alternative supplier" and "incumbent supplier". From now on, incumbent suppliers encompass Gaz de France, Tegaz and the local distribution companies (LDCs). The other suppliers are alternative suppliers.
Consequently, a supplier can not be an incumbent supplier AND an alternative supplier.

The data sources of the observatory originate from transmission system operators: GRTGaz, Total Infrastructures Gaz France; distribution system operators: Gaz de France-Réseau Distribution, Gaz De Bordeaux, Gaz De Strasbourg and Gaz et Electricité de Grenoble, and the incumbent suppliers (Gaz de France and Tegaz).

By agreement, the data regarding the number of sites for month M (or quarter Q) will include:

- *new site connections carried out during month M (of quarter Q).*
- *supplier changes requested during month M (quarter Q) and brought into effect on the 1st of month M+1 (quarter Q+1).*

2. The eligible customer segments and their respective weights



Sources: TSOs, DSOs – Analysis: CRE

The eligible customers connected to the transmission systems are all big gas consumers. They represent less than 1% of sites in terms of number, but approximately half the consumption of eligible customers.

3. Status at April 1st 2007

~~A.~~Summary tables

Situation (number of sites)	April 1st 2007	January 1st 2007
- eligible sites	688,000	683,000
- sites with contract at market prices	**117,800** (1)	**105,000** (1)
- in Transmission	593	578
- in Distribution (1)	117,200 (1)	104,400 (1)
- alternative suppliers' market share within all eligible sites	**7.4%**	**6.7%**

Sources: TSOs, DSOs – Analysis: CRE

(1) The number of sites with contract at market prices connected to the distribution system and the total number of sites with contract at market prices are rounded.

Situation (consumption, in TWh)	April 1st 2007	January 1st 2007
- eligible sites	382 TWh	373 TWh
- sites with contract at market prices	**209 TWh**	**199 TWh**
- in Transmission	139 TWh	132 TWh
- in Distribution	70 TWh	67 TWh
- alternative suppliers' market share within all eligible sites	**15,4%**	**14,9 %**

Sources: TSOs, DSOs – Analysis: CRE

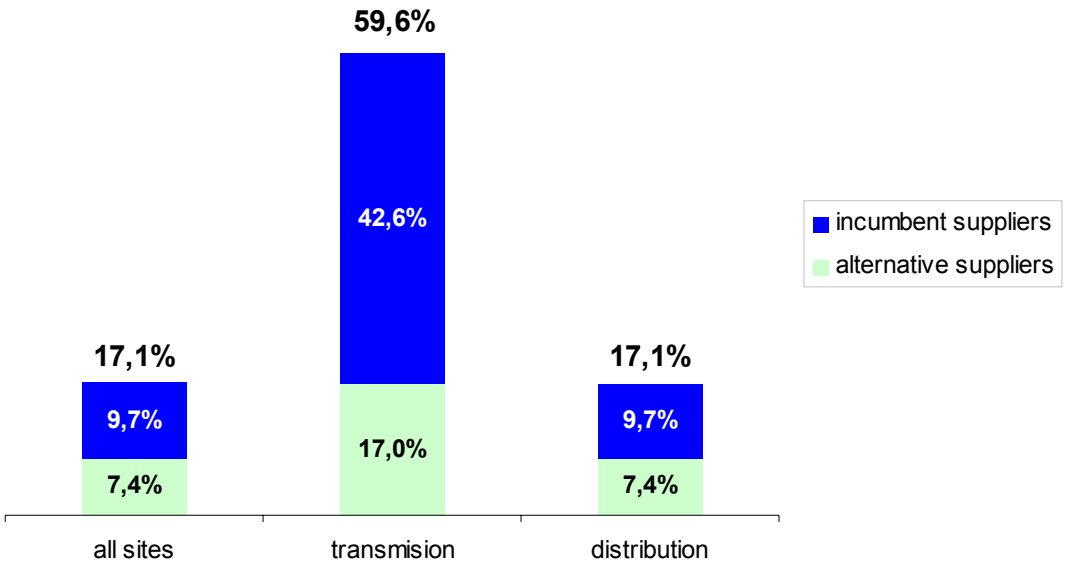
Because of the implementation of a new data mining method, figures from January 1st have been readjusted.

~~B.~~Evolution of number of sites with contracts at market prices

Sources: TSOs, DSOs – Analysis: CRE

~~C.~~Eligibility's application rate and market shares on April 1st 2007, in number of sites

Share of sites with contracts at market prices
-number of sites-

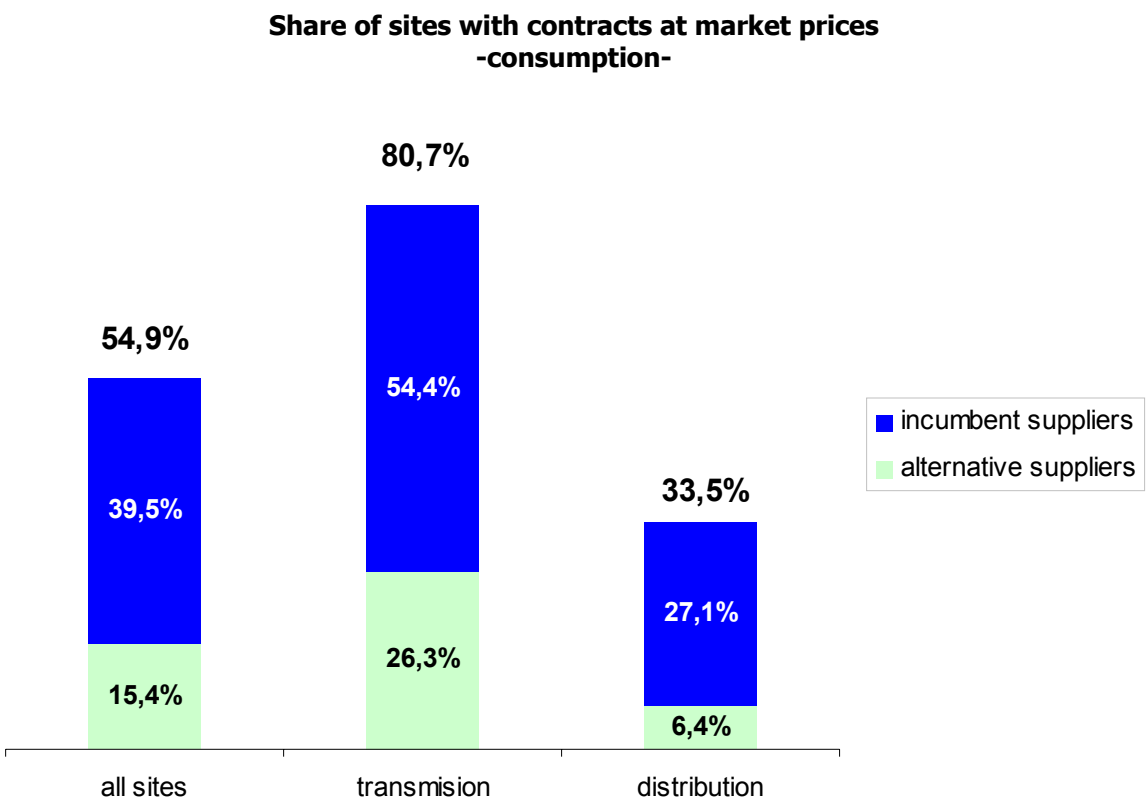


Sources: TSOs, DSOs – Analysis: CRE

The eligibility application's rate is equal to the number of sites with contracts at market prices compared with the number of all eligible sites within the corresponding segment.

For sites with several suppliers, we only take in account the supplier who subscribed the biggest capacity for the site.

~~D.~~Eligibility's application rate and market shares on April 1st 2007, in yearly consumption



Sources: TSOs, DSOs – Analysis: CRE

The eligibility application's rate is equal to the yearly consumption of sites with contracts at market prices compared with the yearly consumption of all eligible sites within the corresponding segment.

For the sites with several suppliers, the consumption given for each supplier is proportional with the capacity subscribed.

~~E.~~Number of active alternative suppliers at April 1st 2007

	All	Transmission	Distribution
Number of active alternative suppliers	15	12	12

Sources: TSOs, DSOs – Analysis: CRE

An alternative supplier is said to be active when it supplies at least one customer with gas.

At April 1st 2007, three alternative suppliers already active in the transmission system became active in the distribution system.

At April 1st 2007, three suppliers are actives in the transmission systems only, and three in distribution systems only.

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The wholesale gas market

1. Gas pricing and gas markets in Europe

France and other continental European countries are mainly supplied under long-term contracts (between 15 and 25 years), agreed between the national companies in the gas-producing countries (Gazprom, Sonatrach, Statoil, Gasunie, etc.) and the incumbent suppliers. Fluctuation of gas prices under these long-term contracts are mainly linked to fluctuations in oil product prices (domestic heating oil and heavy oil), with a three to six months delay. In 2006, approximately 86% of the gas imported into France was purchased under long-term contracts (Russia: 19%, Algeria: 19%, Norway: 34%, Netherlands: 22%, Egypt: 6%[5]).

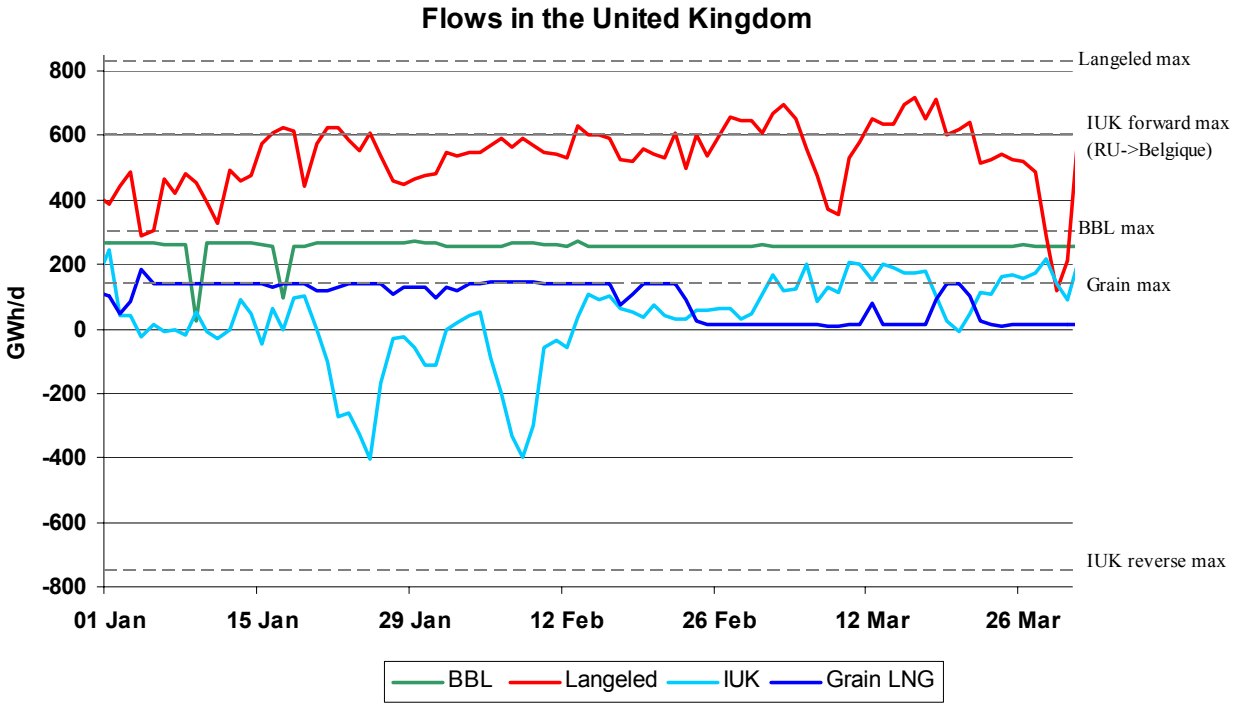
In addition, a wholesale or spot market is being developed in Europe, but only the NBP, in Great Britain, trades significant gas volumes. It represents the price driver for the markets in continental Europe, which are still at an early stage and only represent a very small share of total supplies. The Zeebrugge market in Belgium and TTF in the Netherlands are the most developed.

Flows in the United Kingdom

The supply conditions and the gas flows in the United Kingdom have a direct impact on the NBP prices.

BBL pipeline: Since its entry into operation end November 2006, gas flows through BBL (direction Continent to UK) have been stable with a workload of 90 %. These flow correspond to the long term contract of 8 bcm/y between Centrica and GasTerra (ex Gasunie Trade & Supply), among them 5 bcm in winter (1st of October to 31th March).
Langeled pipeline: Langeled flows remained at a high level, due to the strong Norwegian production, albeit quite volatile.
Interconnector: Interconnector flows have been close to zero until mid-February, except during cold peaks, which led to succinct gas imports from the Continent. As of mi-February, gas exports from UK to the Continent increased, reaching 200GWh/d. Imported gas through Langeled has thereby been partly reexported towards the Continent through the Interconnector.
LNG: Since its entry into operation, the LNG offshore of Teeside infrastructure has nearly received no LNG, whereas the Grain terminal have been used to its maximum until the 20th February and remained unused thereafter.

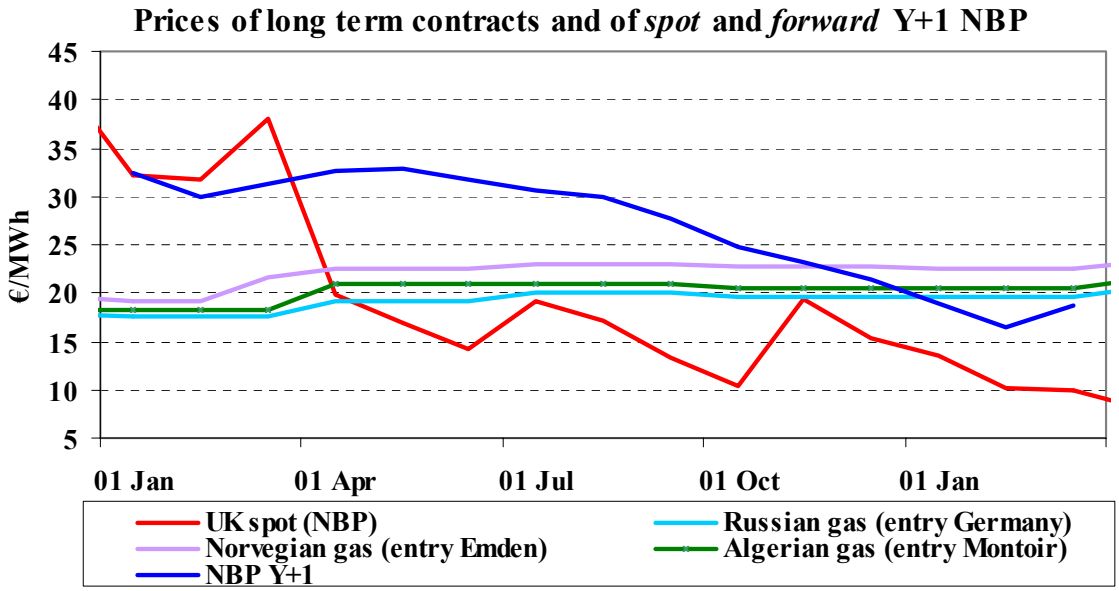
[5] Source: Gaz naturel en France : les principaux résultats en 2006 », DGEMP / Observatoire de l'énergie, mai 2007



Comparison between long-term contracts prices and NBP spot prices

Since April 2006, long-term contract prices have been high and stable.
In March 2007, the prices of these contracts estimated by Heren amounted to:

- 20,43 €/MWh for Algerian gas (entry Montoir);
- 22,51 €/MWh for Norwegian gas (entry Emden);
- 19,53 €/MWh for Russian gas (entry Germany).



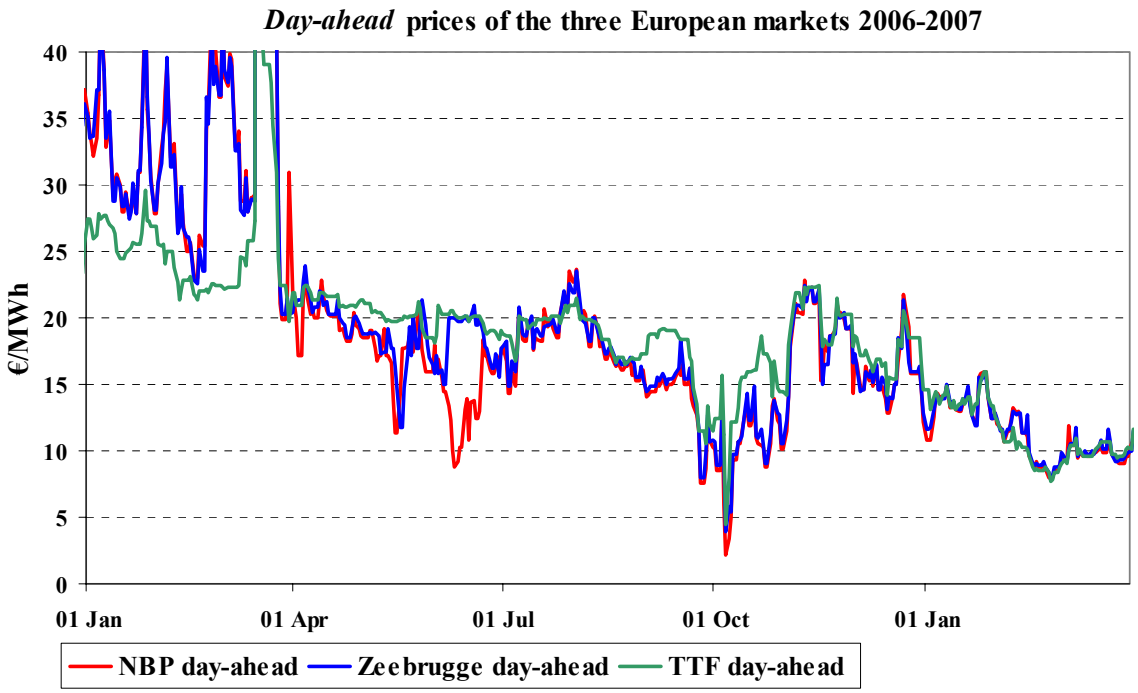
Since April 2006, the price of long-term contracts has remained above the NBP spot price. The monthly average difference between long-term and NBP spot prices reached 10 to 12 €/MWh in March 2007.
Since January 2007, Y+1 forward prices at the NBP are slightly below to the prices of the long term contracts; they were above the long term prices during all the year 2006.

Comparison of spot prices in three European markets

Since January 2007, the weakness of the demand compared to the seasonal normal demand, especially in the UK, and the increase of the British gas imports supported by the recent entry into operation of different infrastructures (Langeled, BBL) have led to a fall and then a stabilisation at a low level of the European spot prices.

Between January and March 2007, the European day-ahead prices have fluctuated between 15 and 10 €/MWh. The monthly mean of the NBP day-ahead prices amounted to 10 €/MWh in March 2007, which is 30 % under the level of January 2007. This level is fourfold under the price of March 2006 had had not been observed since 2004.

During the 1st quarter of 2001, the correlation between the spot prices of the three European markets has been stronger than usually, the TTF prices traditionally being independent of the Zeebrugge and NBP prices.



Note : Liquidity on the TTF hub is much lower than on the NBP and Zeebrugge hubs

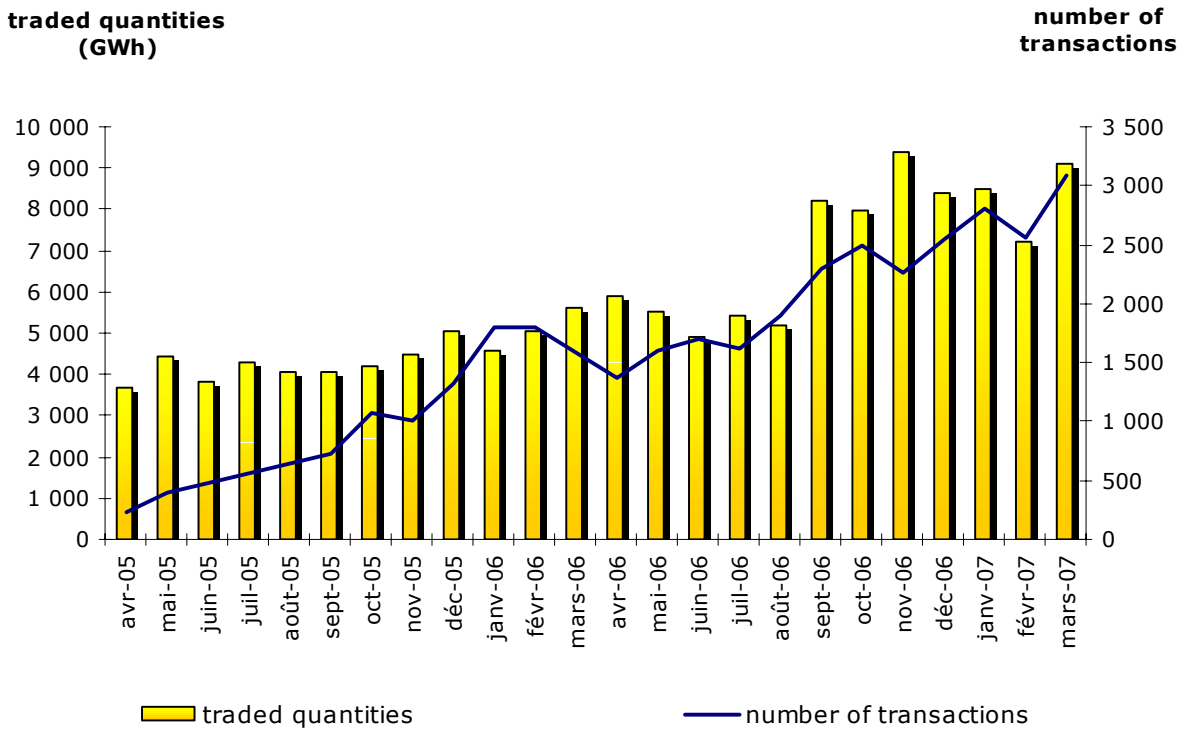
2. The wholesale market in France

Wholesale gas market trading is organized at the Gas Exchange Points (PEGs), which are virtual points within each balancing zone, where the following trading operations take place:

- *gas trading between suppliers, including supplies under the gas release.*
- *gas supplies to network operators, used for network management, for the balancing of daily shipper balances, for fuelling the compressors, or the creation of a line pack for new structures;*

The PEGs were set up in 2004.

The total exchanged quantity for all the PEGs, over the 1st 2007 quarter, was about 24.8 TWh for 8,400 transactions and has decreased by 3.5% compared to the previous quarter. The physical deliveries at the PEGs during the 1st 2007 quarter have increased by 69% compared to levels observed during the 1st 2006 quarter.



Source: TSO – Analysis: CRE
Gas supplies to network operators are not included in this chart.

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Electricity and gas market observatories combined glossary

Local Distribution Company (LDC): a non-nationalized distributor which distributes electricity and/or gas within a delimited territory.

Fournisseur alternatif actif : Les fournisseurs alternatifs actifs comptabilisés sont :
- les fournisseurs d'au moins un site en contrat unique
- les responsables d'équilibre auxquels sont rattachés au moins un site en CARD/CART

Site: a gas or electricity consumption point for a given customer. One site may include several delivery points (meters). A given customer may have several sites.

Site with contracts at market prices: an eligible site which signed a contract at market prices with the incumbent supplier or with an alternative supplier. Exercising this right is irreversible.

Site which switched supplier: There are three possibilities :

- A customer who switched from the incumbent supplier to an alternative supplier.
- A customer who switched from an alternative supplier to another alternative supplier.
- A customer who switched from an alternative supplier to return to the incumbent supplier.

Site which reviewed its contract agreements with the incumbent supplier: a site supplied by the incumbent supplier which cancelled its regulated tariff contract in order to benefit from a new offer at market prices from the incumbent supplier.

Eligible site: a site which is allowed to choose its gas or electricity supplier.

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Specific electricity market observatory glossary

Alternative supplier : alternative suppliers encompass non-incumbent suppliers.
The companies which activity is followed through the observatory are:

- balancing responsible entities if the supplied sites have a transmission or a distribution contract
- suppliers if the supplied sites have a unique supply contract

Incumbent supplier : incumbent suppliers encompass EDF and Local Distribution Companies (LDC).

Active alternative supplier: supplier which:

- supply at least one site through a unique contract
- are balancing responsible entity for at least one site with transmission or distribution contract

Main electricity power exchanges in Europe (electricity):

- **PWX:** French Powernext power exchanges, non mandatory (www.powernext.fr).
- **EEX:** German European Energy Exchange power exchanges, non mandatory (www.eex.de).
- **APX:** Dutch Amsterdam Power Exchange power exchanges, mandatory for imports and exports to the Netherlands (www.apx.nl).
- **Omel:** Spanish pool, almost mandatory (www.omel.es).
- **NordPool:** Scandinavian power exchanges, non mandatory (one of the power exchanges in Europe, www.nordpool.no).

Wholesale products:
***Spot*:** a contract agreement signed for delivery the day after
***Future*:** a standard contract agreement for delivery of a given quantity at a given price, for a given maturity, requiring the payment of a premium and a deposit. The maturities may differ across power exchanges (weekly, half-yearly, quarterly, monthly, annually). Maturity Y+1 corresponds to the calendar year after the current year.
Baseload : 24 hours a day, 7 days a week (this is why sliding monthly averages for Baseload products are calculated on a 28-day basis, i.e. working days as well as weekends).
Peak (continental Europe): from 8 a.m. to 8 p.m., Monday to Friday (this is why the sliding monthly averages for Peak products are calculated on a 20-day basis, i.e. working days only).

Retail market segments: the eligible customer market is divided into three segments:

- **Large sites**: high voltage sites whose subscribed power level is at least 250 kW. These sites include large industrial sites, hospitals, hypermarkets, large buildings, etc. (with an annual consumption generally over 1 GWh)
- **Medium-sized sites**: high voltage sites whose subscribed power level is less than 250 kW and low voltage sites whose subscribed power level is at least 36 kVA. These sites correspond to SME premises, for example (with an annual consumption generally between 0.15 GWh and 1 GWh).
- **Small sites**: low voltage sites whose subscribed power level is below 36 kVA. These sites correspond to the professional mass market (private professionals, trades, etc.). Their annual consumption is generally under 0.15 GWh.

Wholesale market segments:

- **Generation**
- **VPP**: "Virtual Power Plant" or capacity auction sales set up by EDF as a result of a decision made by the European Commission (**http://www.edf.fr/index.php4?coe_i_id=244**)

- **Wholesale purchases and sales (OTC)**[6]: block trading notifications, i.e. quantities selected by RTE the previous day for the day after, excluding trading via Powernext
- **Imports and exports**: **http://www.rte-france.com/htm/fr/offre/offre_inter_1.htm**
- **Purchases and sales via Powernext**, the French electricity power exchange: **www.powernext.fr**
- **Final consumption**: sales to sites as a balancing responsible entity or under block trading
- **Sales to network operators to compensate for their losses**: **http://www.rte-france.com/htm/fr/offre/offre_perte.htm**

Site connection: a customer which connects on a new site. There are two possible situations:

- **Connection on a new site:** a customer moves into a newly-built site, which involves that a meter must be installed and that premises should be connected. E.g. a mechanic which will move into a newly-built garage.
- **Connection on a current site:** a customer moves into a site, after that another customer has left it, which involves that the meter has already been installed. The connection must be made to allow the new customer to be supplied with energy.

Site cancelled: a customer leaves a site.

VPP – Products auctioned off by EDF:

- **VPPs baseload:** these are products which reflect a generator running in base mode. It runs on the principle that bidders pay a fixed premium (in Euros/MW) each month in order to reserve available capacity, and that they regularly send EDF a schedule for using these capacities. Then they pay an operating fee per MWh taken off, which is similar to the marginal cost of EDF's nuclear generators. The price structure is therefore "fixed cost + variable cost".
- **VPPs peak:** these are products which reflect a generator running in peak mode. The principle is the same as for the VPPs baseload, but the price paid for each MWh taken off is an estimate of the marginal cost of EDF's peak generators. Given this high variable cost, the fixed premium paid by bidders is lower than for VPPs baseload.

[6] "Over the Counter" or private transactions

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Specific gas market observatory glossary

Incumbent supplier : the incumbent suppliers include Gaz de France, Tegaz and the local distribution companies.

Alternative supplier : alternative suppliers encompass non-incumbent suppliers.
The observatory deals with :
- expeditors delivering gas to consumption sites connected to the transmission system
- suppliers delivering gas to consumption sites connected to the distribution system

Gas release: to introduce competition in the South of France, a gas release program was set up for a three year period.
Gaz de France puts on the market 15 TWh per year at the South gas exchange point, for a total, for the whole period, of 45 TWh through calls for tender and bilateral negotiations.
Gaz du Sud-ouest, now Total Infrastructures Gaz France puts on the market 1.1 TWh per year, for a total, of 3.3 TWh.

Gas exchange point – PEG: a virtual point, linked to a balancing zone, where a shipper can deliver gas to another shipper.

Consumptions : in transmission, the yearly consumptions takings into account are the consumptions of the sites measured during 2006. For the sites with several suppliers, the consumption for each supplier is proportional with the capacity subscribed.
In distribution, the yearly consumptions takings into account are estimations from yearly reference consumptions of the sites updated the January 1st of 2007.

Number of sites: for sites with several suppliers, we only take in account the most important supplier who subscribed the biggest capacity for the site.

Market segments : the eligible customer market is divided into two segments:

- Customers connected to the transmission system
- Customers connected to the distribution system.

Balancing zone : a geographic gas transmission system zone within which gas injections and off-takes must be balanced.