

Transparency of the French Electricity Market

Results and innovations

Tuesday, January 25, 2011

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Contents

| | |
|---|----|
| 1. Transparency in support of the market opening | 3 |
| 2. Main achievements of a joint initiative | 5 |
| 3. News for the day concerning generation data, particularly wind power | 10 |
| 4. An ever evolving approach: forthcoming innovations | 12 |

The **Union Française de l'Électricité / French Electricity Industry Association (UFE)** is the trade association for the electricity sector. It represents the interests of its members, generators, system operators and electricity suppliers in the social, economic and industrial fields.

The UFE includes, either directly or indirectly, more than 500 companies who employ over 150,000 employees across France, representing an annual turnover above 40 billion euros.

RTE is the company responsible for managing the French electricity transmission network. It is a public service operator, tasked with the mission of ensuring the operation, maintenance and development of the high and extra high voltage network. RTE guarantees the proper functioning and the safety and security of the electricity system. Its entrusted mission and objectives were set down by the Law of February 10, 2000. With 100,000 km of lines between 63,000 and 400,000 volts and 46 cross-border lines, the network operated by RTE is the largest in Europe. RTE posted turnover of €4,130 million in 2009 and employs around 8,500 staff.

1. Transparency in support of the market opening

Transparency is one of the conditions necessary for the optimal functioning of the electricity market. By making available all the fundamental data that affect the establishment of electricity pricing in organised or over-the-counter markets, it helps to build confidence among market participants, increase liquidity and reduce risk in order to support the exchanges.

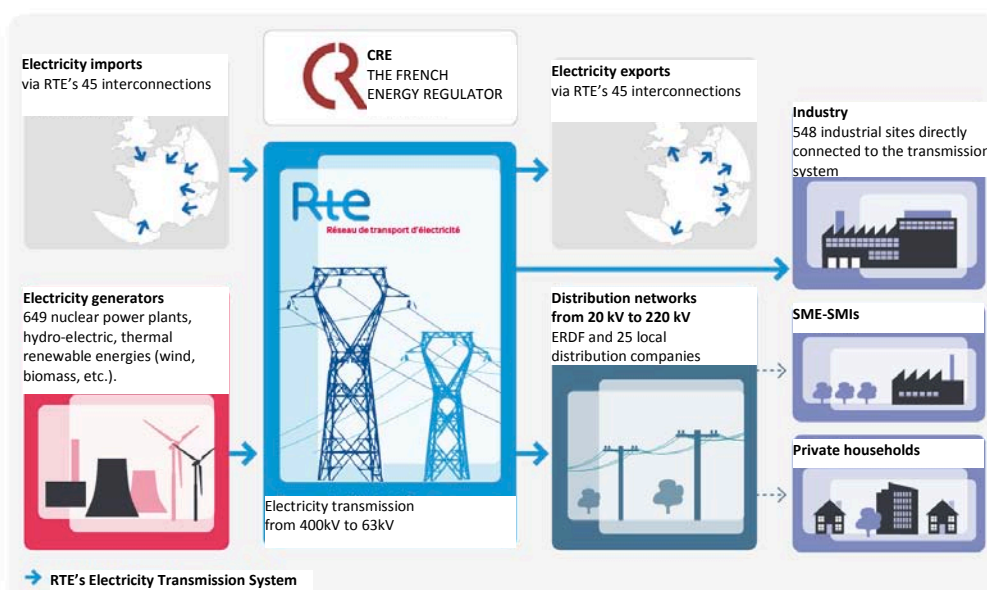
- **RTE, an impartial actor serving the needs of all grid users**

RTE has been entrusted through the law of February 10, 2000¹, of the mission to ensure an access based on fairness, transparency and non discrimination to all of its network users.

This Transmission System Operator mission is also consistent with the objective of providing an access to key information relating to the sector, in a manner that is fair, transparent and non discriminatory. Since its creation in 2000, RTE has thus provided data that are freely available on its website:

- Since 2000, all the forecasts and actual demand / consumption data in France;
- From 2003, data relating to the French Balancing Mechanism;
- Finally, from 2002 to 2006, information relating to the interconnection capacities in synch with the establishment of auction mechanisms on them.

These data were then completed by information regarding power generation in France provided by the UFE within the framework of its transparency initiative.



¹ [Law No. 2000-108 of February 10 2000](#) Law No. 2000-108 of February 10 2000 concerning the modernisation and development of public service electricity (*service public de l'électricité*).

- **The UFE, leading the transparency initiative with respect to generation related data in France**

The availability and transparency of information relating to the generation of electricity in France have always been essential parameters for the UFE which brings together the vast majority of generators across the country. Since 2006, it has taken the initiative in collaboration with RTE to make available to market participants, on a voluntary and free basis, a programme for publishing fundamental data relating to electricity generation in France which is amongst the most advanced in Europe. It has thus anticipated, indeed well in advance, the transparency rules that the European Commission is planning for all electricity markets. Convinced that this transparency initiative contributes to enhanced visibility with regard to the availability of generating facilities, the UFE is resolutely committed to a process of continuous improvement of its system for the benefit of users.

- **Transparency issues in the European electricity market**

In parallel, following the extension of the requirements of Regulation EC 714/2009², European efforts centred on these issues of transparency are underway, aimed at developing a new Community regulatory framework³ applicable across the EU member States.

² [Regulation \(EC\) No 714/2009](#) of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003.

³ The final advice of the ERGEG (European Regulators' Group for Electricity and Gas) to the European Commission with regard to the contents of this future rule was published on December 7, 2010 : [ERGEG final advice on Comitology Guidelines on Fundamental Electricity Data Transparency](#). RTE, through the European Network of Transmission System Operators for Electricity (ENTSO-E), provided support to the ERGEG in drafting and preparation of this advice.

2. Main achievements of a joint initiative

- **Transparency, a shared commitment**

The UFE and RTE have jointly undertaken to make publicly available on a cost free basis the fundamental data related to the French electricity market. In order to promote the development of the integrated European market, such information is made available to players operating on the electricity exchanges and in over-the-counter markets.

Henceforward, RTE and the UFE shall seek to anticipate the changing needs of market players, by means of increasing the number of publications for which interest has been identified, as well as by refining and securing already existing publications.

In addition, RTE seeks to facilitate access to data by providing its customers and electricity market participants with greater readability and improved ergonomics, by way of easy navigation through the pages of its dedicated Customer's website⁴.

- **A cooperation approach proven since 2006**

RTE and the generators members of UFE have implemented a cooperative initiative whereby, the primary outcome has been the publication since November 2006, of fundamental data and information such as:

- the forecasted availabilities⁵ of generation facilities aggregated by generation technology for the short-, medium- and long term time horizons thus providing a comprehensive outlook covering the near future and extending three years out;
- Actual generation⁶ of the previous day for generating units belonging to the UFE reference fleet⁷, aggregated by generation technology;
- The effective weekly balance of water reserves⁸.

Since its establishment by RTE and the UFE, the process of publishing data, forecasted or realised, has been recognised as being amongst the most representative in Europe with 88% of installed generating facilities in France being covered.

Subsequently, within a context of continuous improvement, the publications have evolved towards ever greater precision. Thus, data relating to short-term availability forecasts have

⁴ RTE Customers' website : http://clients.rte-france.com/index_en.jsp

⁵ Forecast and effective availability of generation facilities:
http://clients.rte-france.com/lang/an/visiteurs/vie/prod/PMD_hebdo.jsp

⁶ Actual electricity generation realised by the reference fleet :
http://clients.rte-france.com/lang/an/visiteurs/vie/prod/realisation_production.jsp

⁷ All the information and data relating to generation that are published on the Customers Section of the RTE website refer to the "Reference Fleet" that includes the generation units belonging to the UFE member generators with installed capacities greater than or equal to 20 MW and having a telemetering device. Details regarding the reference fleet are available for downloading in Excel format at the bottom of the page : http://clients.rte-france.com/lang/an/visiteurs/vie/prod/parc_reference.jsp

⁸ Weekly water reserves in France (and 10 year historical data):
http://clients.rte-france.com/lang/an/visiteurs/vie/prod/stock_hydraulique.jsp

been updated on a daily basis starting from 2007, and subsequently in 2008 new indicators such as the effective availability of generation facilities have been published.

Three major developments relating to new publications of the generators members of UFE and to the improved ergonomics of the Customers Section of the RTE website, were undertaken in 2010.

- **Three major developments in 2010**

- ✓ **Availability forecasts per generating unit⁹**

On June 29 2010, the generators members of UFE freely made available to market participants through the RTE website Customers Section the forecasted availabilities for each generating unit over 100 MW over a period of three months. The published weekly and 3-month horizon data are updated, respectively, on a daily and weekly basis.

More specifically, this phase was marked by the following new features:

- availability forecasts for the short to medium term, have been published for each generating unit with installed capacity greater than 100 MW;
- published data, that were previously aggregated, for gas and coal-fired facilities have been separated;
- The scope of publications has been expanded, with the reference fleet integrating new generating units.

Figure: RTE Forecast Table



| | Nuclear | Nuclear | Nuclear | Nuclear | Nuclear |
|-----|----------|----------|----------|---------|---------|
| | PALUEL 2 | PALUEL 3 | PALUEL 4 | PENLY 1 | PENLY 2 |
| S5 | 1303 | 1296 | 1322 | 1325 | 1278 |
| S6 | 1303 | 1296 | 1322 | 1330 | 1303 |
| S7 | 1303 | 1296 | 1322 | 1330 | 1303 |
| S8 | 1303 | 1277 | 1322 | 1330 | 1303 |
| S9 | 1293 | 0 | 1322 | 1330 | 1303 |
| S10 | 1270 | 0 | 1322 | 1330 | 1289 |
| S11 | 1248 | 0 | 1322 | 1330 | 1267 |
| S12 | 1221 | 0 | 1322 | 1330 | 1240 |
| S13 | 1198 | 1320 | 1322 | 1330 | 1217 |
| S14 | 1175 | 1320 | 1322 | 1330 | 1195 |
| S15 | 1153 | 1320 | 1322 | 1330 | 0 |
| S16 | 0 | 1320 | 1322 | 1330 | 0 |

⁹ Forecast and effective availability http://clients.rte-france.com/lang/an/visiteurs/vie/prod/PMD_hebdo.jsp , then link to the detailed availability data per generation unit.

✓ Dashboard: Fundamental Market Data¹⁰

Introduced by RTE on July 29 2010, the data Dashboard which includes together the fundamental market data that were previously scattered across the various pages of the Customers Section of the RTE website, was the second major development of the year, particularly with regard to ergonomics.

This intuitive and customisable tool allows users of the RTE website to display and review on a **single screen** all the key data necessary for understanding the condition and state of the system and the French electricity market for the current day. The data already available on the Customers Section are summarised in the form of thumbnail graphs so as to provide a quick overview in terms of the Load, Demand, Interconnections, and the Balancing Mechanism. The data relating to the organised EPEX Spot market are also available for review.



¹⁰ Dashboard: Fundamental Market Data http://clients.rte-france.com/lang/an/visiteurs/vie/tableau_de_bord.jsp

✓ Unplanned outages of generating units¹¹

Finally, on December 14, 2010, the generators members of UFE complemented the publication of generation data relating to the French electricity market by undertaking to communicate on the Customers Section of the RTE website, within a period of 30 minutes after any unplanned total unavailability of a generating unit over 100 MW occurs.

Such information includes the name, technology and the installed capacity of the generating unit concerned, as well as the date and time of the incident (outage start). The information may be completed with the reason of the unavailability and its estimated end date (service resumption) until no later than the morning of the day following the outage.

Figure: Unplanned outages of generating units

Unplanned outages of generating units

Within a delay of 30 minutes after an unplanned total unavailability of a generating unit over 100 MW occurs, the responsible generator sends information to RTE which displays it on this webpage.

The information displayed contains the name, the technology and the installed capacity of the generating unit, as well as the date and time of the outage start.

Information can be completed with the reason of the unavailability and its estimated end date until the morning of the day following the outage.

Should the generator have sent an incorrect information, the data can, to its request, be moved under the « cancelled » tab.

After this deadline, the case is closed and the availability of the generating unit should be followed up through the publication of detailed availability forecasts of generating units.

Ongoing **Closed** Cancelled

Choose another date: January 2011 submit

Details on the closed outage

| | |
|--|--|
| Generation type | Lake hydropower |
| Name of the generating unit | GRAND-MAISON 9 |
| Installed capacity of the generating unit | 152.5 MW |
| Unavailability start | 25/01/2011 09:25 |
| Reason | For hydro : Turbine - Base valve - Moving part |
| Estimated stop date of the unavailability | 25/01/2011 16:10 |
| Notice: This message has been displayed within 30 minutes after the outage incidence and has been completed no later than the morning of the following day. In order to get up-to-date information regarding the availability of the generating unit, please consult the Availability forecasts of generating units . | |
| Date and time of the last update | 25/01/2011 16:28 |

List of closed unplanned outages of generating units

| Date and time of the first message regarding the outage | Date and time of the last update | Name of the generating unit concerned | Details |
|---|----------------------------------|---------------------------------------|-------------------------|
| 25/01/2011 18:19 | 26/01/2011 08:39 | MONTEZIC 1 | Details |
| 25/01/2011 09:45 | 25/01/2011 16:28 | GRAND-MAISON 9 | Details |
| 25/01/2011 09:19 | 25/01/2011 15:57 | VAIRES 1 | Details |

¹¹ Unplanned outages of generating units http://clients.rte-france.com/lang/an/visiteurs/vie/prod/arrets_fortuits.jsp

3. News for the day concerning generation data, particularly wind power

- **Publication of the wind power generation forecast for the day ahead¹²**

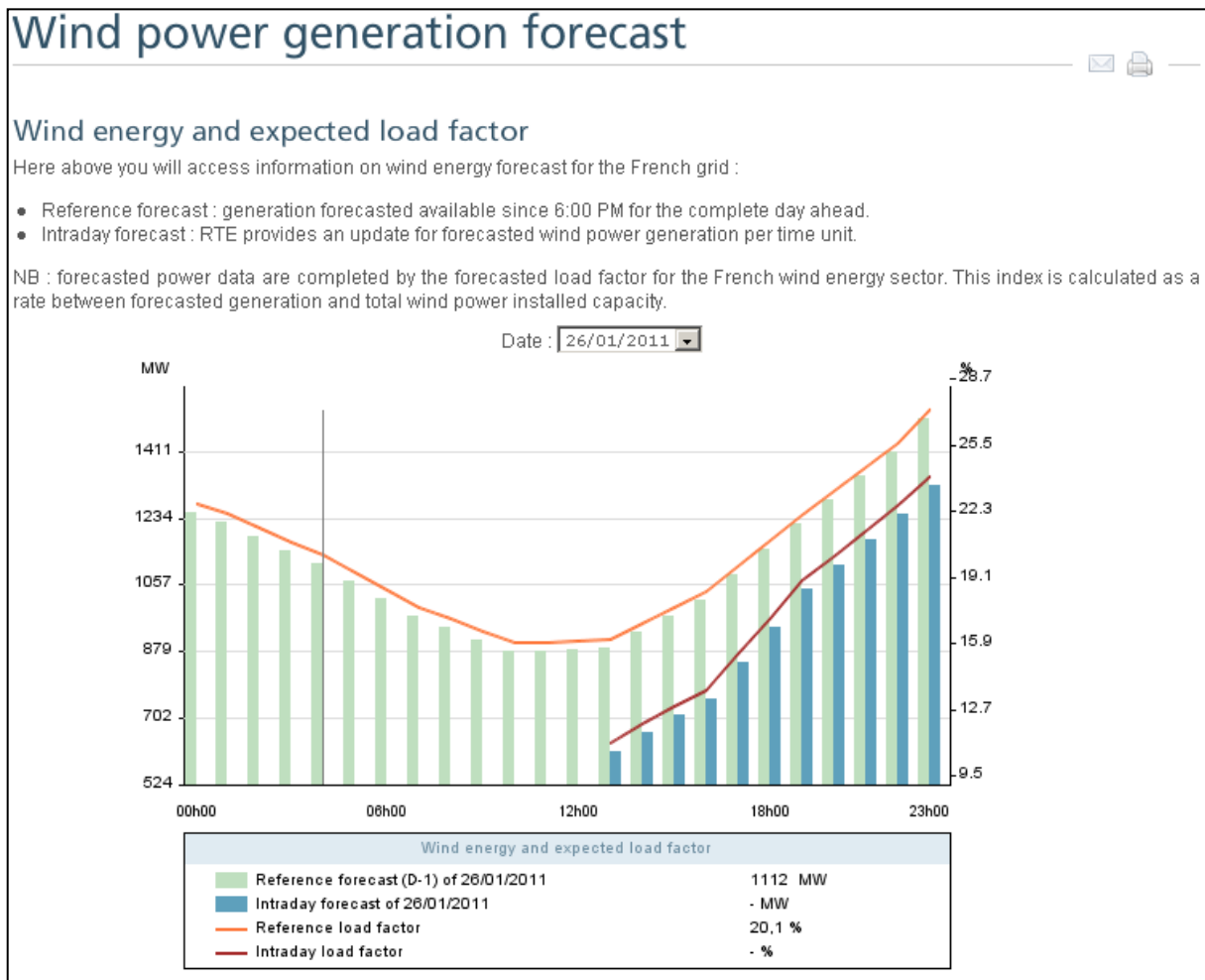
Henceforward, RTE shall make available on a free basis daily at 6:00pm, the wind power generation forecast for the day ahead. This initial forecast known as the reference forecast is then updated every hour based on changes in weather forecasts. Thus, the players shall have continuous ongoing access to the best available forecast.

Planned wind power generation depends on the location of the fleet, direction and speed of the wind, and on the number and type of wind power generators.

The forecast is thus developed by RTE on the basis of several parameters:

- wind power generation realised over the most recent hours of the past,
- wind forecasts,
- the technical characteristics and the geographical coordinates of wind farms.

The forecasts are recalculated every hour so as to incorporate the latest available data.



¹² Wind power generation forecast http://clients.rte-france.com/lang/an/visiteurs/vie/previsions_eoliennes.jsp

- A new version of the market data dashboard¹³, enhanced with generation data and new time dimensions

The data dashboard that was originally presented in July 2010 underwent its first major development. Firstly, it now includes data related to electricity generation in France provided by the generators members of UFE.

All of the fundamental data are now available and accessible via the dashboard: demand, generation, interconnections, the balancing mechanism and the wholesale market.

Moreover, the daily overview of the dashboard is enhanced with two new time dimensions: there is firstly a link to the forecasts for the day ahead and secondly, a Medium / Long term tab thereby providing an overview pertaining to the next day, the next week, the month or year to come, based on the data granularity.

Figure: Data Dashboard



¹³ Dashboard http://clients.rte-france.com/lang/an/visiteurs/vie/tableau_de_bord.jsp

4. An ever evolving approach: forthcoming innovations

The UFE and RTE shall continue with the improvement of the system with the further implementation of important steps during the year 2011. These will make it possible on the one hand, to ensure data publication as close to real time as possible, while on the other hand, also expanding the range of forecast data.

- **Generation data relating to generating units over 100 MW published within 1 Hour**

By the end of 2011, generators members of the UFE and RTE are planning the publication, within one hour, of data relating to actual generation realised individually for each of the generating units over 100 MW included in the UFE reference fleet.

- **Towards the publication of french electricity generation forecasts**

Beyond the current publication of availability forecast, the UFE and RTE have undertaken to publish by the end of 2011, new data with respect to generation forecast for the French fleet.

These significant innovations are aimed at responding to the identified needs of energy market participants.

- **A commitment to developing the system for even greater transparency**

In addition to these publication projects, RTE and the UFE are committed to promoting transparency and are keen to put forward practical developments that are tailored to the French power industry, integrated into the European electricity market.