

## February 2011

The purpose of this document is to provide information on the results of operation of the French public transmission network and power system during the past month. Information sources: ERDF, METEORFRANCE, electricity generators, RTE. The data published are correct as of **March 8th 2011**, unless indicated otherwise.

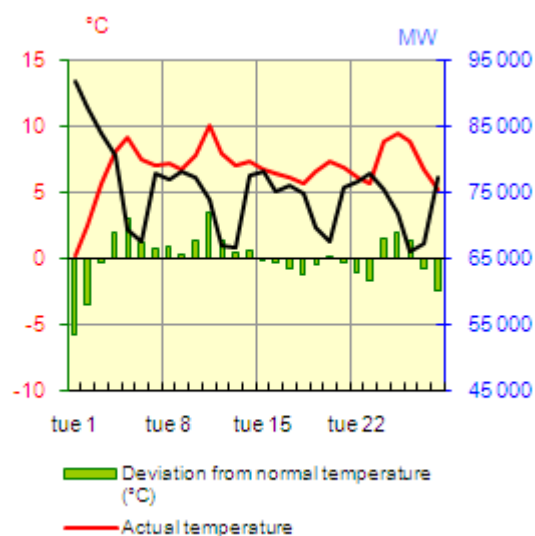
### INTERNAL ELECTRICITY CONSUMPTION - perimeter France

#### Results at end of past month

	February 2011	Trend vs. February 2010	Cumulative trend since February 1st	Cumulative trend over last 12 months
National consumption	45.9 TWh	-5.7%	-5.0%	+3.6%
Adjusted consumption *	45.3 TWh	+1.7%	+2.6%	+2.2%

Temperature	
Monthly average	6.7 °C
Deviation from norm	0.0 °C/norm
Deviation from February 2010	+2.3 °C

RTE-in house reference drawn up on basis of METEORFRANCE data

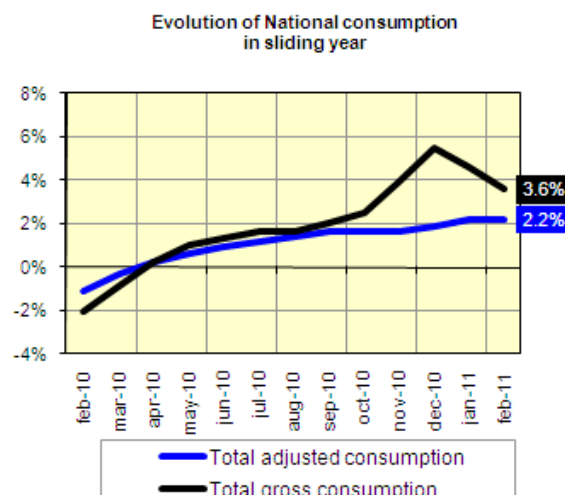


Despite an average monthly temperature close to the norm, the very low temperatures recorded at the beginning of the month meant that the overall impact of meteorological conditions on demand for the month of February was around 0.6 TWh (+1.4%). With an average temperature 2.3°C higher in February 2011 than in February 2010, gross consumption was down by 5.7%. Adjusted for meteorological contingencies, monthly demand was up by 1.7%. A total of 11 peak day load shedding orders (EJPs) were issued in February 2011, the same number as in February 2010 (in Feb 2011: 7 for the whole of France, 2 for the whole of France excluding the West region and 2 regional orders; in Feb 2010: 4 for the whole of France, 1 for the whole of France excluding the West region and 6 regional orders).

#### Cumulative trend over last 12 months

Gross consumption in cumulative figures over a 12-month period showed growth of +3.6% at the end of February 2011, down from +4.6% at the end of January 2011 and +5.5% at the end of December 2010.

The rate of growth in adjusted consumption\* stabilized, showing a rise of 2.2% at the end of February 2011, the same figure as that recorded at the end of January, following a rise of 1.9% at the end of 2010.



\* adjusted for the impact of meteorological contingencies in winter and summer

## BALANCE OF ELECTRICAL ENERGY IN FRANCE

### Results at end of past month

	February 2011 (GWh)	Deviation from Feb 2010 (GWh)	Change since Feb 2010	Cumulative trend since Jan 1 <sup>st</sup>	Cumulative trend over last 12 months
<b>NET GENERATION</b>					
Nuclear	38 328	+2 010	+5.5%	+7.2%	+7.0%
Fossil-fuel thermal	6 537	-285	-4.2%	-15.9%	+2.2%
Hydro-electric	4 199	-1 694	-28.7%	-16.5%	+6.0%
Wind	884	-98	-10.0%	+27.5%	+20.3%
Other renewable sources *	473	+71	+17.7%	+17.5%	+20.5%
<b>Total net generation</b>	<b>50 421</b>	<b>+4</b>	<b>+0.0%</b>	<b>+1.6%</b>	<b>+6.7%</b>
<b>GROSS INTERNAL CONSUMPTION</b>					
Consumers directly connected to the RTE grid **	5 687	+240	+4.4%	+4.9%	+4.0%
Other consumers and losses on all networks ***	40 261	-3 000	-6.9%	-6.2%	+3.5%
<b>Total gross internal consumption</b>	<b>45 948</b>	<b>-2 760</b>	<b>-5.7%</b>	<b>-5.0%</b>	<b>+3.6%</b>
<b>Energy extracted for pumping</b>	<b>510</b>	<b>-70</b>	<b>-12.1%</b>	<b>-3.4%</b>	<b>-1.0%</b>
<b>Balance of physical exchanges ****</b>	<b>3 963</b>	<b>+2 834</b>	<b>+251%</b>	<b>n.s.</b>	<b>+83.7%</b>

\* mainly: household waste, paper waste, biogas, solar

\*\*\* SMEs, professional and individual consumers served by the distribution networks, generation auto-consumed by industrials at their sites, losses on the transmission and distribution networks

\*\* extractions by these consumers on the RTE network

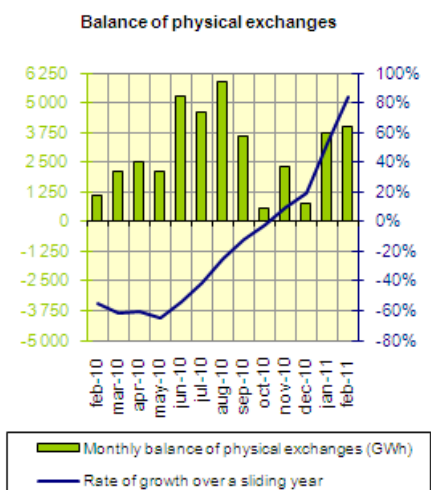
\*\*\*\* a negative value indicates a net import balance, a positive value indicates a net export balance

Hydro-electric generation recorded its lowest February value since 1989, due to the shortage of rainfall observed by French meteorological office MétéoFrance in all parts of the country, except the Pyrénées and the Côte d'Azur.

### Development in the balance of physical exchanges

The net export balance reached 3 963 GWh in February 2011, an increase on February 2010 which saw a net export balance for the month of 1 129 GWh;

however, the balance saw net power imports over several hourly periods on three days. Cumulatively since January 1<sup>st</sup>, the balance is 11 times higher than in 2010, with internal demand down on last year and better availability of the nuclear fleet.

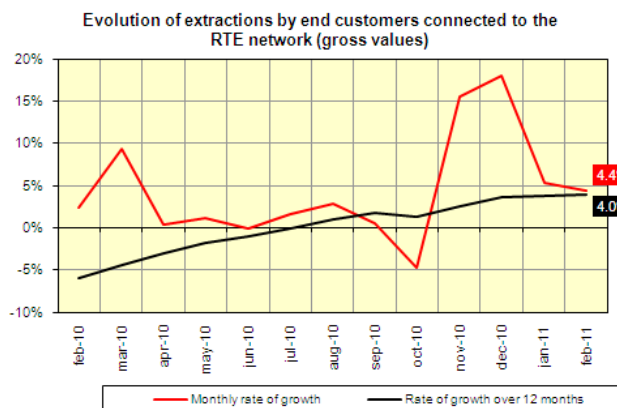


### Development in extractions by heavy industry

In February 2011, the rate of growth in monthly extractions by consumers connected directly to the RTE network was higher than in February 2010 (+4.4%), with a level close to that recorded in January (+5.4%), but down on those for December and November 2010 (+18.0%, +15.3%). Extractions in February 2011 were 6.9% higher than in February 2009, but still down by 9.9% on February 2008, and by -10.1% on January 2007.

Excluding the energy sector, the monthly growth rate continued to rise in February 2011 (+5.4%), following increases of 6.2% in January 2011, 12.5% in December and 7.7% in November.

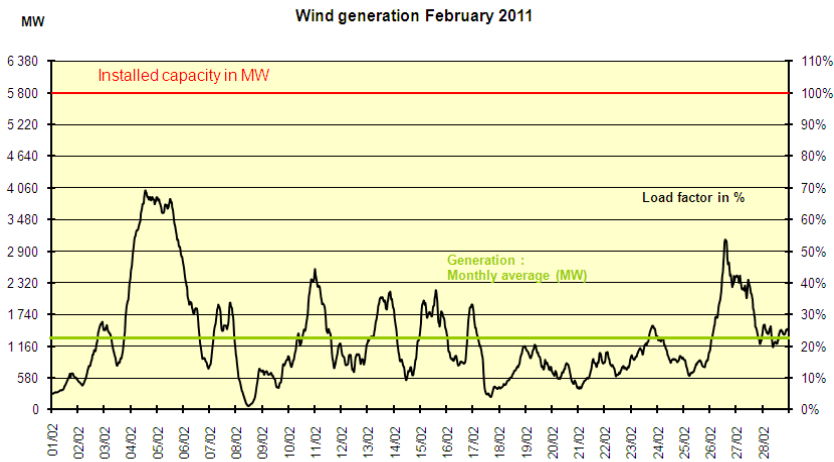
Over a sliding year, the rate of growth in extractions by consumers connected directly to the RTE network, which returned to a positive value in August (+1.0%), continued to rise and reached +4.0% in February, up from +3.8% in January 2011 and +3.7% in December 2010.



**Wind generation over the past month**

**Wind generation and installed capacity**

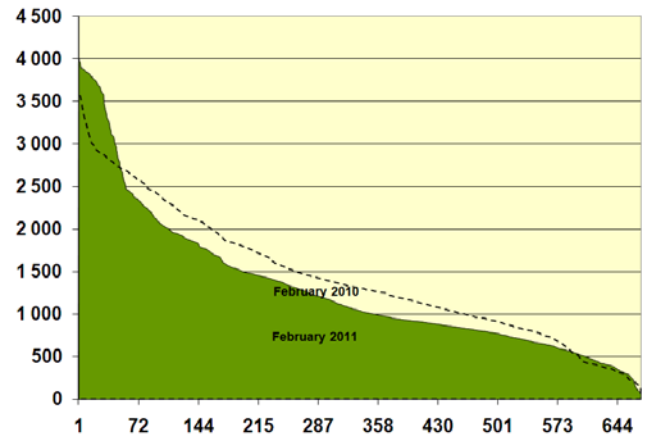
As of the end of February, installed capacity was close to 5 800 MW. Average wind generation was 1 311 MW in February. The month of February 2011 saw less wind than February 2010; the average load factor was 23%, compared with over 30% in February 2010. Generation fluctuated during the month between extremes of 68 MW (load factor: 1%) on Tuesday February 8th, and 4 019 MW (load factor: 69%) on Friday February 4th.



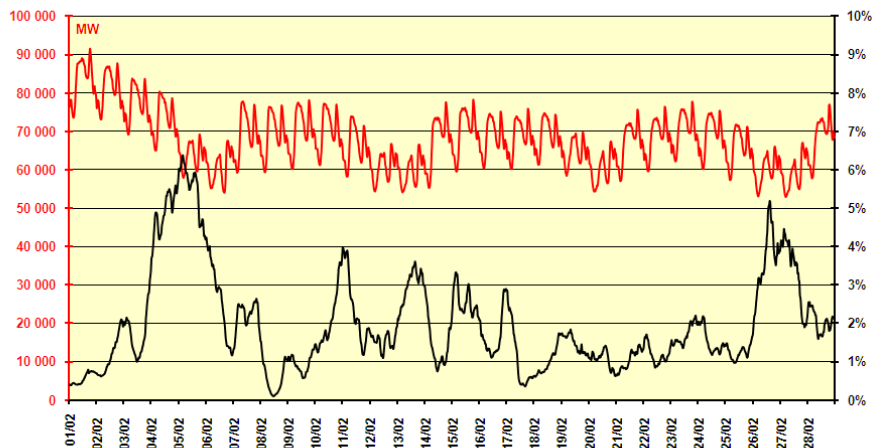
**Hourly coverage rate**

The average rate of coverage of demand by wind generation was 2.0%, compared with 2.1% in February 2010; a maximum of 6.4% was reached at 4.30am on Saturday February 5th, when wind generation was 3 702 MW and demand 58 083 MW.

Wind generation February 2011 Load Distribution (MW)/Hours



Consumption February 2011 (MW) and rate of coverage by wind generation (%)



**EXTREME values for consumption, exchanges –perimeter France\***

		February			Last 12 months			Absolute **			
<b>Gross internal consumption</b>	Maximum	2 004 GWh	Tues 1st	2 098 GWh	15/12/2010	2 098 GWh	15/12/2010	96 611 MW	Tues 1st	96 710 MW	15/12/2010
	Minimum	1 419 GWh	Sun 27th	915 GWh	15/08/2010	856 GWh	06/08/2006	52 854 MW	Sun 27th	29 816 MW	06/08/2006
<b>Balance of physical exchanges ***</b>	Maximum	235 GWh	Sat 26th	277 GWh	15/01/2011	13 887 MW	16/01/2011	12 526 MW	Sat 12th	13 887 MW	16/01/2011
	Minimum	4 GWh	Tues 1st	-117 GWh	21/10/2010	-140 GWh	16/12/2009	-1 548 MW	Tues 1st	-7 794 MW	06/01/2010

\* Excl. Corsica - \*\* The minimum values concern the last 30 years for the physical exchange balance, and the last 5 years for consumption.

\*\*\* A positive value indicates a net export balance, a negative value indicates a net import balance.

**THE ELECTRICITY MARKET****CONTRACTUAL CROSS-BORDER ELECTRICITY EXCHANGES**

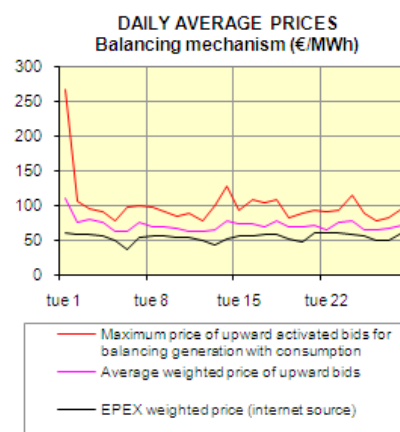
	EXPORTS			IMPORTS			CUMULATIVE VOLUME OF EXCHANGES			EXPORT BALANCE*		
	February 2011 GWh	Trend / Feb 2010	Cumul. trend since Jan 1st	February 2011 GWh	Trend / Feb 2010	Cumul. trend since Jan 1st	February 2011 GWh	Trend / Feb 2010	Cumul. trend since Jan 1st	February 2011 GWh	Trend / Feb 2010	Cumul. trend since Jan 1st
Belgium	713	n.s**	n.s***	115	-80%	-81%	828	13%	17%	598	n.s**	n.s***
Germany	539	8%	61%	1 010	-37%	-35%	1 549	-26%	-20%	-471	57%	59%
Switzerland	2 278	11%	13%	318	8%	-4%	2 596	11%	10%	1 960	12%	17%
Italy	1 693	0%	3%	62	-4%	11%	1 755	0%	3%	1 631	0%	2%
Spain	33	-14%	89%	225	-40%	-24%	258	-37%	-13%	-192	42%	40%
Great Britain	672	131%	176%	402	-49%	-53%	1 074	0%	4%	270	n.s**	n.s***
<b>TOTAL</b>	<b>5 928</b>	<b>26%</b>	<b>38%</b>	<b>2 132</b>	<b>-42%</b>	<b>-40%</b>	<b>8 060</b>	<b>-4%</b>	<b>0%</b>	<b>3 796</b>	<b>n.s**</b>	<b>n.s***</b>

\* A negative value indicates a net import balance \*\* In February 2010, exports to Belgium were 143 GWh; there were net imports of 447 GWh from Belgium, and 496 GWh from Great Britain, the overall balance showed total net exports of 1 008 GWh \*\*\* in cumulative terms since January 1st 2011, exports to Belgium total 1 505 GWh, compared with 246 GWh over the same period in 2010; the overall balance shows total net exports to Belgium of 1 276 GWh (compared with net imports of 988 GWh over the same period in 2010), and net exports of 788 GWh to Great Britain (compared with net imports of 1 149 GWh over the same period in 2010); the overall balance shows net exports from France of 7 379 GWh as of the end of February 2011, compared with 519 GWh at the end of February 2010.

**BALANCING MECHANISM - BALANCE RESPONSIBLE ENTITIES**

	February 2011	Deviation from Feb 2010	Change from Feb 2010	Cumul. trend since Jan 1st
<b>Balancing Mechanism</b>				
Total energy activated upward	264 GWh	-232 GWh	-47%	-31%
Total energy activated downward	269 GWh	+12 GWh	+5%	-19%
Number of parties	37	+2		
<b>Exchanges between Balance Responsible entities (BRs) via block exchange notifications (NEBs)</b>				
Energy exchanged between BRs via NEBs	26 369 GWh	+1117 GWh	+4%	+4%
Number of BRs	159	+14		

\* Balance Responsible Entity: a legal entity who is committed to RTE, under a Balance Responsible contract, to settling the costs of the imbalances calculated retrospectively, on behalf of one or more network users attached to its perimeter. These imbalances result from the difference between all of the supplies and consumption for which it is responsible.

**NEW INSTALLATIONS**

In February, the following RTE installations were electrified for the first time:

- a new 225/63 kV (170 MVA) transformer at the Argiesans substation, to replace the previous 100 MVA transformer and strengthen the supply to Belfort;
- the 90 kV Ganil-St Contest n°1 underground line, close to Caen in Calvados, following work to install conductors fully underground.