COMMISSION
DE RÉGULATION
DE L'ÉNERGIE

Activity report 2012

MESSAGE FROM THE BOARD

The world is becoming aware that there are no easy solutions when it comes to guaranteeing access to a secure supply of affordable, environmentally-friendly energy. These three aims, which the World Energy Council defines as a "trilemma", are creating complex relationships and connections between public and private players, between economic and social factors, and between domestic resources and environmental issues. The contrasting changes in the gas market on a worldwide level, with development and production of unconventional gas in the United States, high demand for LNG in Asia and the sluggishness of the recession-hit European market, illustrate the interdependencies and uncertainty that characterise the energy sector today.

Controlling demand is the best way to moderate increasing bills in the context of a predicted increase in the price of energy.

In Europe, where more importance is placed on climate issues than anywhere else, the relationship between energy cost, buying power and competitiveness appears to be a decisive factor in the debate, while regulators proceed with finalising the internal market which the European Commission wants to see in place by 2014. France, for its part, has embarked on an extensive study of the future of its energy policy, which should lead to a new law being created in the second half of 2013. Whatever political choices are made, significant amounts will need to be invested in production facilities as well as the transmission and distribution networks.

For electricity as well as gas, the CRE now has the authority to set network tariffs by itself. It is responsible for ensuring that these tariffs cover the cost of investments and operating charges incurred by distributors and transporters. The CRE is always aware of the need to be more cost-effective, and when setting the gas transmission tariff for the next four years (ATRT 5), it introduced an incentive mechanism to regulate the cost of investments, as well as system operators' operating charges.

◂ *Board members*
From left to right:
Philippe de Ladoucette (President), Michel Thiollière, Jean-Pierre Sotura, Olivier Challan-Belval, Hélène Gassin, Commissioners.

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Moreover, the development of renewable energy requires us to extend, strengthen and modernise the network in order to carry the product to the places of consumption. It has also led to more volatile prices on the electricity market. This has resulted in a fall in wholesale prices in Europe, and even the appearance of negative prices, which are discouraging investment in the means of electricity generation needed to keep the system in balance.

To adapt to increasing variability in production and the rise in peak demand for electricity, and ensure a secure supply at all times, we need to improve energy efficiency and consumption management. Controlling demand is in fact the best way to moderate increasing bills in the context of a predicted increase in the price of energy. To this end, the CRE is glad to see progress being made in smart metering projects, resulting in the launch of a public consultation on the Gazpar system.

Consumers in situations of fuel poverty should benefit from social assistance schemes to help them meet their energy needs. The law of 15 April 2013, which is designed to prepare for the transition to a frugal energy system and includes various provisions on water rates and wind farms, has thus extended the benefits of the social tariff to 4 million households, i.e. 8 million people.

However, the consumer still needs to be encouraged to behave more frugally, and prices must reflect production, transmission and distribution costs. This makes transparency in energy costs all the more essential. To this end, the CRE regularly audits the formula used to evaluate GDF SUEZ's supply costs in its regulated tariffs for natural gas sales. In 2011, it recommended a change in the tariff formula, which has now come into effect, in order to more accurately reflect the effect of the decrease in market prices on long-term contract indexation. It has also just published a report on EDF's production and marketing costs.

In its first report on the operation of the electricity and gas retail market, in application of the new monitoring powers assigned to it under the NOME law, the CRE emphasises the savings that

As the least-well funded regulator among all its counterparts in neighbouring countries, the CRE is concerned about this lack of resources, which could prevent it from accomplishing its missions and affect regulation quality.

consumers can make by subscribing to market offers which are cheaper than the regulated tariffs. Yet few benefit from these since there is little openness to competition. French people's lack of interest in competition can be explained by a lack of knowledge about how the market works. Around three-quarters of them do not know about the simple, free process for switching supplier. Most of them do not know that a consumer who has switched away from the regulated tariff can switch back at any time.

The consumer's lack of understanding is reinforced by the increasing complexity of the ever-changing legal framework, especially in the field of tariffs. This has been modified by 31 laws and ordinances since the markets opened in 2000. In the same period, the membership of the CRE Board has changed five times.

The law has conferred many additional missions upon the regulator during the last few years, without a corresponding increase in human or financial resources. As the least-well funded regulator among all its counterparts in neighbouring countries, the CRE is concerned about this lack of resources, which could prevent it from accomplishing its missions and affect regulation quality. In particular, this could compromise its participation in the European regulatory authorities, where it plays a very important role in defending French interests. Likewise, the quality of the CRE's consultation with other players, to which it is committed as part of its work, could also be compromised. Yet consultation is one of the founding principles of regulation, as it promotes construction, understanding and acceptance of standards. ■

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THE FRENCH ENERGY REGULATORY COMMISSION

1. ORGANISATION OF THE CRE

The CRE is an independent administrative authority created when the energy markets were opened to competition. The law of 10 February 2000 on the modernisation and development of the public electricity service, now included in the Energy Code, assigned the regulation of these markets to the CRE. Its main mission is to support "the correct operation of the electricity and natural gas markets for the benefit of the end consumer, in accordance with energy policy objectives" (article L.131-1 of the Energy Code).

Its key mission is to contribute to "the correct operation of the electricity and natural gas markets to the benefit of the end consumer and in accordance with energy policy objectives" (article L.131-1 of the Energy Code).

All provisions relating to gas and electricity are grouped together in a single text, the Energy Code, which details the missions of the CRE.

To accomplish this mission, the CRE is divided into two independent bodies: the Board of Commissioners and the Standing Committee for Disputes and Sanctions (CoRDiS - Comité de règlement des différends et des sanctions). In its decisions, the Board relies on the expertise of the CRE directorates, under the authority of the President and the Managing Director.

1.1. The Board of Commissioners

The Board of Commissioners is composed of five members appointed by virtue of their legal, economics and technical qualifications for a non-renewable period of six years. The president of the board and two members are appointed by decree of the President of the Republic following consultation with the Parliamentary committees specialised in the energy sector. The other two members are appointed for four years by the President of the National Assembly and the President of the Senate, respectively. Exceptionally, the current members of the board may be appointed for terms ranging from two to six years (in accordance with article 17 of the law of 7 December 2010 on the reorganisation of the electricity market).

◂ *CoRDiS members*
From left to right Sylvie Mandel, Christian Pers, Monique Liebert-Champagne (President), Roland Peylet

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To ensure the independence of the CRE, board members hold office on a full-time and irrevocable basis, except in cases of resignation, impediment or serious dereliction as set out in article L. 132-5 of the Energy Code. Moreover, incompatibility rules prohibit simultaneous membership of the board and the holding of elected office at municipal, departmental, regional, national or European level. Members are also prohibited from holding any direct or indirect interest in companies in the energy sector.

1.2. The Standing Committee for Disputes and Sanctions (Comité de règlement des différends et des sanctions - CoRDiS)

CoRDiS was created by the law of 7 December 2006 and is composed of four members: two of these are conseillers d'Etat (government advisors – senior members of the Conseil d'Etat, the body which examines bills before they are submitted to the Council of Ministers and which deals with legal irregularities within the public bodies and at government level). They are appointed by the vice-president of the Conseil d'Etat. The other two are advisors to the Cour de cassation (the Court of Cassation) appointed by the President of the Court. As with the CRE board, CoRDiS members are appointed for a non-renewable six year term. CoRDiS is responsible for settling, in technical and financial areas, disputes between operators and users of the public electricity and natural gas networks. Thus, this independent committee of the Board of Commissioners enables the CRE to carry out one of its core missions - to ensure transparent and non-discriminatory access to the electricity and natural gas networks, which is the key to open competition.

Various rulings by CoRDiS that have contributed to specifying the conditions of network access and usage

	2009	2010	2011	2012
Number of referrals received	*9*	*17*	*272*	*32*
Number of decisions made	*9*	*11*	*206*	*115*

See appendix for the main decisions made by CoRDiS.

83
days spent on the commission
in 2012,
i.e. a 32% increase on 2011

2. THE MISSIONS OF THE CRE

The missions assigned to the CRE can be broken down into two main areas. First, regulation of the electricity and natural gas networks to guarantee users (businesses, local authorities, consumers, producers) non-discriminatory access to transmission and distribution infrastructures, which are natural monopolies, while ensuring security of supply. Second, regulation of the markets to enable the development of free and fair competition to the benefit of the end consumer. Since law no. 2010-1488, of 7 December 2010, on the reorganisation of the electricity market (the NOME law), the CRE has been required to consult the Supreme Council of Energy (Conseil supérieur de l'énergie) prior to its decisions on matters *"that could have a significant impact on energy policy objectives"*, with these matters to be listed by decree of the Conseil d'Etat.

2.1. Regulation of the electricity and natural gas markets

Since the law of 10 February 2000, the missions assigned to the CRE have grown continually. The NOME law and the transposition of directives 2009/72/EC and 2009/73/EC of 13 July 2009 concerning the common rules for the internal market in electricity and natural gas are important steps in the reform of the energy sector.
Competition can only be opened up in the electricity and natural gas markets if operators and consumers are able to access the networks, structures and facilities under transparent and non-discriminatory conditions. The CRE contributes to this requirement and ensures that networks are secure, reliable, efficient and consumer-oriented. Its missions in this field are broadly the same for natural gas and electricity.

Guaranteeing the right of access to the public electricity and natural gas networks and facilities

The principle of non-discrimination guarantees market access to new entrants and the development of fair competition to the benefit of the consumer. The CRE is the recipient of the contracts between the system or network operators and users, as well as of protocols for access to electricity grids and to natural gas transmission and distribution facilities, including liquefied natural gas (LNG) facilities. It receives justified notification of refusals to enter into contracts or access protocols for infrastructures.

◂ *Executive Committee members*
From left to right:
Anne Monteil (Director of Publics Affairs and Communication Department),
Fadhel Lakhoua (Director of Finance and Wholesale Markets Surveillance),
Sophie Pataridzé (Director of Human Ressources),
Esther Pivet (Director of Market Development),
Philippe Raillon (Director of International Relations),
Jean-Yves Ollier (General Director),
Olivier Béatrix (Director of Legal Affairs),
Cécile George (Director of Electric Grid Access),
Francis Hauguel (Deputy Director to the General Director, responsible for administrative issues),
Naima Idir (Deputy Director to the Director of Gas Infrastructures and Networks),
Dominique Jamme (Director of Gas Infrastructures and Networks).

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For access to electricity grids, the CRE issues preliminary opinions on refusals by the préfet (responsible administrative authority) to allow the construction of a direct line. Furthermore, in application of decree no. 2006-1731 of 23 December 2006 approving the typical list of specifications for concession of the public electrical grid, the CRE approves the templates for contracts giving access to the public electricity grid.

For access to natural gas facilities, it issues an opinion on the dispensations established by decree on the tariffs for the use of natural gas transmission and distribution networks and of liquefied natural gas facilities, as well as the dispensations made to the commercial terms of use for networks or facilities.

The CRE, through its Standing Committee for Disputes and Sanctions (CoRDiS), has coercive power over operators in the event of a serious and immediate breach of the rules governing access to networks, structures and facilities, or their use: it may order precautionary measures to ensure continued operation of the networks as part of a settlement of the dispute. The CoRDiS also has the power to impose sanctions for violations of legislative rules and regulations, or non-compliance with the decisions of the CRE, relative to access or use of public electricity grids, transmission and distribution facilities for natural gas, natural gas storage facilities and liquefied natural gas facilities.

Ensuring the correct operation and development of electricity and liquefied natural gas networks and infrastructures

To ensure optimal operation of the networks, the CRE now sets tariffs for the use of the public electricity and natural gas networks, and related services provided under the monopoly of the operators of these networks. Before the third package came into force, it only had the power to suggest these tariffs to the relevant ministers, who could oppose its proposal.

The CRE is also the recipient of the programme of investments from system operators or operators of the networks. It receives notice of development projects of the natural gas transmission or distribution network carried out by the operators and the status of their investment programme.

The CRE approves the annual investment programmes of the TSOs of the natural gas transmission networks (GRTgaz and TIGF) and of the public electricity transmission system operator (RTE) and ensures that the necessary investments are made for the correct development of the networks.

The transposition of the third package into the Energy Code has changed the CRE's missions in the area of the investment programmes of the TSOs. In fact, every year the CRE reviews the ten-year investment plan of the TSOs to ensure that it covers all investment needs and is consistent with the European plan developed by the ENTSO. The CRE may, if necessary, consult the Agency for the Cooperation of Energy Regulators (ACER) and insist that the system operator alter its ten-year investment plan. If a TSO fails to make

an investment that, under its ten-year plan, should have been made within three years, the CRE has coercive power. Indeed, if it considers that the investment is still relevant given the current ten-year plan, it may order the TSO to comply with this requirement and therefore make the proposed investment or organise a call for tender to third party investors to make this investment.

In the case of serious and immediate threat to the safety and security of the public electricity transmission and distribution systems or to the quality of their operation, the CRE can ask the Energy Minister to ensure the continuity of their operation.

Ensuring the independence of system operators

Management of the electricity or natural gas transmission networks is provided by legal entities separate from those operating electricity or gas production or supply (article L.111-7 of the Energy Code).

To guarantee the independence of the system operators, the CRE approves, following consultation with the Autorité de la concurrence (Competition Authority), the accounting rules for the separation of activities between production, transmission and distribution of electricity, and other activities of operators involved with electricity, and between transmission, distribution, and storage of natural gas and use and installation of LGN and other activities of operators involved with natural gas. It exercises a monitoring and surveillance function embodied by the possible exercise of its powers of investigation and sanction.

The CRE also publishes an annual report on compliance with the codes of conduct established by electricity and gas transmission and distribution system operators, and an assessment of their independence *(see Appendices p. 137)*.

The transposition of the third package directives into the Energy Code has assigned a new role to the CRE: certification of each TSO. The purpose of the certification procedure is to check that operators comply with all the obligations of the Independent Transmission Operator Model (ITO model) - i.e. the requirement for independence from their parent company and autonomy. The CRE launched the certification process and established the contents of the certification dossier in its deliberation of 12 May 2011 and then certified the three TSOs by its deliberation of 26 January 2012. TSO certification is valid indefinitely. However, the CRE's role does not end there: the TSOs are required to notify the CRE of anything that might justify a review of their certification. Furthermore, the CRE may, at its own initiative, or in response to a reasoned request from the European Commission, proceed to review the certification when it believes that events affecting the TSO's organisation, or its shareholders' organisation, are likely to threaten its requirement for independence.

2.2. Regulation of the electricity and natural gas markets

Monitoring transactions on the wholesale electricity, natural gas and CO_2 markets

Since 2006, the CRE has been assigned the mission of monitoring the wholesale electricity and natural gas markets, in particular ensuring that the offers made by market players are consistent with their economic and technical constraints. This monitoring activity is based on data which is collected regularly. The aim is to ensure that prices are consistent with the physical and economic fundamentals which determine supply and demand, such as weather conditions, usage levels, available production capacity and interconnections, fossil fuel and CO_2 prices, etc.

Law no. 2010-1249 of 22 October 2010 on banking and financial regulation extended the CRE's monitoring remit on the CO_2 market. The CRE thus monitors transactions in EUA's (European Union Allowances for emissions), as well as in CER (Certified Emission Reduction) units and ERU's (Emission Reduction Units) as set out in the Kyoto Protocol, by French electricity and gas market players.

The CRE's wholesale market monitoring mission falls within the framework of the regulations on integrity and transparency in the energy markets, known as REMIT, which prohibit market abuse on the wholesale energy markets (electricity and gas). These markets are monitored in cooperation with the ACER. The CRE's Standing Committee for Disputes and Sanctions (CoRDiS) has the power to impose sanctions in the event of non-compliance or violation of these regulations.

As part of this mission, the CRE produces an annual report on the monitoring of the wholesale markets, the 5th edition of which was published in November 2012 *(see Appendices, p. 135)*.

Ensuring the correct operation of the retail markets

Firstly, article L131-2 of the Energy Code, derived from the provisions of the NOME law, gives the CRE the power to monitor transactions between suppliers, traders and producers, and transactions on the organised markets, and also the power to monitor the consistency of offers made by producers, traders and suppliers, to end consumers in particular, with their economic and technical constraints. The CRE may also issue an opinion and propose measures to promote the correct operation and transparency of the retail market.

As part of this mission, the CRE publishes an annual report on the monitoring of the retail market, the first edition of which was published in February 2013 *(see Appendices, p. 136)*.

The CRE's mission of ensuring the correct operation of the retail markets focuses in particular on its role in setting regulated tariffs for electricity and natural gas sales. Until 31 December 2015, these will be set by the Energy and Finance Ministers, after consulting with the CRE. From 1 January 2016, the CRE will propose regulated tariffs for electricity sales to the Energy and Finance Ministers. The decision will be deemed approved unless there is opposition from one of the Ministers within three months of receipt of these proposals.

The setting of regulated natural gas sales tariffs is the result of a complex procedure. First, a tariff formula is set for each supplier by the Energy and Finance Ministers after consulting with the CRE. This formula specifies the full natural gas supply and non-supply costs for each supplier. Then, a decree by the Energy and Finance Ministers, taken following consultation with the CRE, sets the rates for regulated sales tariffs in natural gas.

These rates are reviewed at least once a year and revised if necessary, depending on any changes in the tariff formula. Finally, there is a supplier-initiated procedure for sending proposed changes to the CRE, together with a justification of the proposal. The CRE must ensure that the requested change is, in fact, the result of the application of the supplier's tariff formula and then it either approves or rejects this change.

The CRE also issues an opinion on the social tariff intended to guarantee the right to electricity for persons in situations of fuel poverty, and an opinion on the special solidarity tariff applicable to the supply of natural gas.

222

deliberations

in 2012, i.e. an 8% increase on 2011

See appendix for main deliberations

Contributing to the implementation of measures to support electricity generation and the supply of electricity and gas

Under the NOME law, the sale of regulated access to historic nuclear power (ARENH) is open to all operators supplying end consumers in mainland France, and network operators for their losses. The CRE proposes the conditions for the sale of ARENH to the Minister of Energy, in particular the stipulations of the relevant framework agreement, and decides what volume of historic nuclear power to assign to each supplier.

The CRE is also involved in setting the price of ARENH. Nonetheless, a transitional period has been set by the legislator. Until 7 December 2013, the price of ARENH will be fixed by the Energy and Finance Ministers after the CRE has given its reasoned opinion. As of 8 December 2013, the CRE will propose ARENH prices to the Energy and Finance Ministers. The decision will be deemed approved unless there is opposition from one of the Ministers within three months of receipt of these proposals.

The CRE contributes towards the implementation of schemes to support electricity generation in several ways.

The respective roles of the CRE and the Minister of Energy in the call for tenders procedure for electricity generation facilities are defined by decree no. 2002-1434 of 4 December 2002. *(see box p. 99)*.

The CRE issues opinions on the decrees that set purchase tariffs rates for energy produced by small facilities using household waste or renewable energy sources.

In addition, the CRE evaluates the level of expenses attributable to public service missions, which are subject to full compensation in accordance with article L. 121-10 of the Energy Code, and each year proposes to the Energy Minister the amount of the Contribution au service public de l'électricité (CSPE - contribution to the public electricity service) and the amount of the contribution applicable to each kilowatt-hour. It also proposes, to the Energy and Finance Ministers, the level of repayments made to the operators bearing public service charges.

For the natural gas sector, the CRE makes an annual proposal to the Minister of Energy on the amount of contribution applicable per kilowatt-hour and payable under the special solidarity tariff.

Keeping consumers informed

To ensure the success of this mission, the CRE has created and manages the Energie-Info website in conjunction with the National Energy Ombudsman. This is a shared information service which answers individual consumers' queries. It provides fact sheets with information on the opening up of energy markets: how to change energy supplier, who to contact when moving, complaints procedures and how to benefit from social tariffs.

The Energie-Info website also provides access to a tool to compare offers from electricity and gas suppliers. Informative and easy to use, it lets consumers compare other suppliers' offers with its current offer; check prices excluding or including tax, for standing charges and per kilowatt-hour (over and above their estimated annual expenditure), together with the tax breakdown. Green offers can also be highlighted if this is a selection criterion.

3. THE CRE AND OTHER INSTITUTIONAL PLAYERS

3.1. The CRE and Parliament

Independence, particularly with regard to the government, was one of the reasons for creating independent administrative authorities like the CRE. The CRE is not subject to the hierarchical authority or supervision of the executive authority, and its independence is enshrined in law. Nonetheless, article L.134-14 of the Energy Code states that the President of the CRE *"reports on the activities of the Commission before the parliamentary standing committees specialising in energy, at their request"*.

The CRE places particular importance on this dialogue with Parliament. The President of the CRE spoke at eight hearings before the National Assembly and the Senate during the course of 2012. The purpose of these hearings was as follows:

- to obtain information as part of an investigating commission, as was the case with the real cost of electricity;
- to discuss which credits should be allocated to the CRE: the President of the CRE spoke at a hearing for the 2013 finance bill, before the Finance Commission and Economic Affairs Commission of the National Assembly;
- to hear the CRE's views on certain points, in particular when drafting a bill (National Assembly and Senate hearing on the bill designed to prepare for the transition to a frugal energy system, containing various provisions on water rates and wind farms);
- to present the activities of the CRE, especially when submitting its annual report.

3.2. The CRE and other independent administrative authorities

As a regulatory authority, the CRE is sometimes called upon to work with other independent administrative authorities, in particular the Autorité de la concurrence (Competition Authority), Autorité des marchés financiers (AMF - Financial Markets Authority) and the Commission nationale de l'informatique et des libertés (CNIL - National Commission on Computing and Freedom).

Article L.134-16 of the Energy Code states that the President of the CRE must notify the Autorité de la concurrence of any *"any abuses of a dominant position or practices that may prevent free competition of which they are aware in the electricity and natural gas sectors"*. They may also contact this authority to ask its opinion[1]. The Autorité de la concurrence must inform the CRE of any referral relative to the sectors within its field of competence, so that the latter may make any observations, within a period of two months.

1 – See for example the opinion of the Autorité de la concurrence no. 12-A-19 of 26 July 2012 regarding load management in the electricity sector.

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The CRE has vice-presidency of the CEER and takes part in numerous working groups with the European energy regulators

ACER and/or CEER working groups	Level of participation of the CRE	Other responsibilities of the CRE
Electricity (ACER/CEER)	*Participation*	*Co-presidency of the Supply security sub-group (CEER)*
Gas (ACER/CEER)	*Participation*	*Presidency of the Infrastructures sub-group (ACER/CEER)* *Co-presidency of the Capacity Allocation (ACER) and LNG (CEER) sub-groups*
Procedures and monitoring the implementation of European legislation (ACER/ECER)	*Participation*	–
Integrity and transparency of the markets (ACER/CEER)	*Vice-presidency*	*Presidency of the Wholesale energy market sub-group (CEER)*
Retail markets and consumers (CEER)	*Presidency*	*Co-presidency of the Consumer information sub-group*
International relations (CEER)	*Co-presidency*	–

On the basis of article R.463-9 of the Code of Commerce, the CRE issued an opinion as part of the investigation of a request by the SUN'R company to take protective measures regarding practices implemented by EDF in the photovoltaic electricity sector[2]. In addition, in the context of ARENH, article L.336-8 of the Energy Code states that the CRE and the Autorité de la concurrence must draft reports enabling the Energy and Finance Ministers to evaluate the measures once every five years.

Cooperation with the AMF was strengthened with the passing of the banking and financial regulation act of 22 October 2010, as an initiative under European law, which now makes provision for the possibility of exchanging information and expertise where this may help these two authorities to accomplish their respective missions. In this context, in 2010 the CRE and AMF signed an agreement protocol making provision for mutual assistance in terms of methodological support and providing expertise and information to help them fulfil their missions on the gas, electricity and CO_2 markets.

The CRE also cooperates with the CNIL on dossiers with data protection implications, such as smart metering projects.

3.3. The CRE and European regulatory authorities

The CRE is fully involved in the construction of a European energy market combining competitiveness, security and environmental sustainability, as a highly active member of the Council of European Energy Regulators (CEER) and also in conjunction with the Agency for the Cooperation of Energy Regulators (ACER). It maintains close daily relationships with its European counterparts, with whom it works on the development and harmonisation of the rules on access to networks and optimisation of interconnections between national markets.

2 – Decision by the Autorité de la concurrence no. 13-D-04 and opinion of the CRE dated 15 November 2012.

On top of its mission to coordinate the actions of the national regulators, the ACER plays a major role in drawing up the regulation framework, complementing the rules introduced by the third energy package. The ACER thus adopts the framework guidelines on market integration, the aim of which is to establish non-binding general principles for the operation of the markets. These principles will be translated into more technical terms in the network codes drafted by the European Network of Transmission System Operators (ENTSOs). Its functions now include monitoring the markets, in coordination with the national regulators.

In addition to the coordination provided by the ACER, the CEER continues to promote the exchange of experience and good practices among regulators. Its geographical scope is wider than that of the ACER, since it also includes regulators in Norway and Iceland, as well as regulators in Switzerland and the Former Yugoslavian Republic of Macedonia acting in an observational capacity.

4. HUMAN AND BUDGETARY RESOURCES

Article 35 of directive 2009/72 of 13 July 2009 and article 41 of directive 2009/73 of the same day state that the *"national regulation authority benefits from separate budgetary credits and autonomy in executing the allocated budget, and has sufficient human and financial resources to enable it to fulfil its obligations"*.

The missions and activities of the CRE have increased considerably since 2010, with the transposition of the third package directives (decision-making power when setting network usage tariffs, certification, examination of the GRTs' ten-year investment plans), the entry into force of the NOME law (ARENH, retail market monitoring), widespread recourse to calls for tender in the field of renewable energy, entry into force of the REMIT regulations and European work on drafting the rules on market integration. Yet the French energy regulator's staff numbers and operating budget have fallen during the same period. Furthermore, they were systematically cut during the course of the year by budget freezes.

Changes in the employment ceiling at the CRE from 2009 to 2015

FTE	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Commissioners	*3*	*3*	*5*	*5*	*6*	*6*	*6*
Employees	*128*	*128*	*126*	*126*	*124*	*124*	*123*
Total	*131*	*131*	*131*	*131*	*130*	*130*	*129*

The European Commission took note of these difficulties in its report of November 2012 on the development of the French energy market.

131
people
CRE staff in FTE (full-time equivalent) posts in 2012

The CRE's 126 full-time equivalents (FTEs) are responsible for preparing the CRE's decisions on fixing or checking energy price components representing annual charges of nearly 48.3 billion euros (21.7 billion euros for the regulated tariffs in gas and electricity transmission and distribution infrastructures and tariffs for access to LNG terminals; 21.5 billion euros for the supply part of the regulated sales tariffs and 5.1 billion euros for the public electricity service charges).

A study of the budgetary resources of the European energy regulatory authorities shows that most of the CRE's counterparts saw their human resources increased in 2012. Eight regulators (in Germany, Great Britain, Spain, Hungary, Italy, Poland, the Czech Republic and Romania) now have more staff than the CRE, ranging from 186 to 593 FTEs (full-time equivalents) for energy-related activities.

The staff shortages at the CRE particularly affect:
– its ability to manage calls for tenders in the field of renewable energy within the required time periods. The CRE would like to remind readers that directive 2009/72 does not require this mission to be assigned to the energy regulation authority. It could be assigned to another independent organisation;
– its ability to sit on European panels where regulators meet to draw up the rules on network integration. The CRE has had to considerably reduce its participation in these groups;
– its ability to take on any new missions not strictly required by European law or other legislation. For this reason, on 10 April 2013, the CRE issued an unfavourable opinion on a draft decree, predicting that it would lead to a systematic analysis of the costs of all gas suppliers at the regulated tariff prior to its opinions on tariffs being issued.

The further reduction of the operating budget of the CRE after the implementation of a savings plan primarily affects its budget for research, audits and external consultants. However, this research is essential in setting rates. The CRE has proposed in this regard that the Energy Code be amended so that certain research expenses can be charged to the operators concerned.

On 31 December 2012, the CRE had 125 employees (excluding commissioners), of whom 59 are women and 66 men. 45% of project officers, 42% of department heads and 50% of directors are women.

◂ *The CRE is fully involved in the construction of a European energy market combining competitiveness, security and environmental sustainability, as a highly active member of the Council of European Energy Regulators (CEER) and also in conjunction with the Agency for the Cooperation of Energy Regulators (ACER).*
CEER conference "Building a 2020 vision for Europe's energy customer" on 21 June 2012.
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The regulator seeks to employ staff who offer the very best technical and economics skills in the energy sector, as well as the capacity for future development. In 2012, the CRE received 1,210 applications for 21 vacancies. Most candidates were very highly qualified and largely met the required profiles for the posts. In order to raise its profile, attract talent and recruit a diverse range of people, the CRE has a communication policy that targets key pools of candidates. The human resources directorate therefore took part in two recruitment forums in 2012, with the support of employees from the business directorates: the AgroParisTech forum and the Toulouse School of Economics forum.

The CRE's staff mostly comprises civil service employees (87% of the workforce) who are mainly recruited from business. The average employee age is 35.

In 2012, 50% of employees attended at least one in-service training course. The training budget is 133,000 euros. Also in 2012, 10% of staff moved to a different post within the CRE. ■

THE CRE, CONSULTATION AND TRANSPARENCY

Consultation and transparency are essential in ensuring that the regulator's work is of high quality and is understood by all, and in guaranteeing the correct operation of the energy market to the benefit of the end consumer. Stakeholder dialogue plays a central role in the CRE's work processes, and takes three main forms. Either the CRE organises the dialogue between energy market players in consultation groups, or these players draw up the rules on market operation themselves as part of the self-regulation process. The CRE also carries out numerous consultations and hearings, and sets up working groups and round tables to prepare its own decisions and opinions, while always striving for greater transparency. Lastly, it works on European energy market construction projects, a process in which consultation is essential.

23

public consultations run by the CRE in 2012, versus 9 in 2011

464

responses to public consultations

KEYWORDS

Transparency
Self-regulation
Improving the operation of the energy markets

1. UNDER THE AEGIS OF THE CRE, SECTOR PLAYERS WORK TOGETHER TO SET THE RULES OF THE MARKET

The system and infrastructure operators, producers, suppliers, trade unions, public authorities and consumer associations (since 2005) work together with the regulator and thus contribute to setting the rules on the operation of a competitive market. The process of setting these rules, based on direct dialogue between the players involved, is a form of self-regulation.

This consultation process meets the need for transparency and predictability which is necessary for the correct operation of the electricity and natural gas markets.

Consultation is in fact a major factor in making soft law. This term refers to standards which are drawn up jointly by professionals or are the result of consultation between various players, and are based on recommendations, procedures or working methods which are accepted by all, and which all the stakeholders undertake to apply.

The operational working groups on "Procedures and New Services" prepare for the arrival of smart meters

The objectives of the operational working groups (OWGs) on "Procedures and New services" are to adapt existing procedures and define new ones, while taking account of the new functionality offered by smart meters. They also aim to define the conditions of access to supplier data to develop new services relating to these devices, such as provision of contractual data.

The OWGs include all stakeholders, i.e. distribution system operators, suppliers, consumers' associations, public authorities with the Direction générale de la concurrence, de la consommation et de la répression des fraudes (DGCCRF - Directorate-General for Competition, Consumption and Fraud Prevention), the Direction générale de l'énergie et du climat (DGEC - Directorate-General for Energy and the Climate) and the Médiateur national de l'énergie (MNE - National Energy Ombudsman).

The main procedures examined by the OWGs are those relating to new contracts, customer terminations, and changes of supplier. For natural gas and electricity, these services will now be based on consumer data gathered remotely using smart meters (remote readings). If such data is unavailable in the desired timeframe, the procedures allow for the use of an earlier remote reading, an automatic reading or an estimated reading.

In 2012, the operational working group on "Procedures and New Services" met for:

3 work sessions on electricity

5 work sessions on gas

With regard to the new gas services, the conditions of access to the hourly consumption measurements, transmission of a monthly cyclical reading, choice of theoretical reading date and gathering of consumption data for price changes in supplier offers have been set out in a decree. In electricity, a procedure has been devised to allow power changes to be carried out remotely.

The gas OWG will establish procedures that reflect the principles set out in the decree. In electricity, the OWG will continue to examine the existing procedures and draft procedures for new services. The list of procedures devised by the OWGs is available at www.cre.fr/operateurs/referentiel-clientele. ■

88
CRE working group meetings
in 2012.

42 in electricity

46 in gas

1.1. The CRE has set up numerous consultation bodies which have helped define operational procedures for the electricity and gas markets

Since 1 July 2007, every consumer has had the right to choose their own electricity or natural gas supplier. Following on from the measures taken in 2003 to prepare for opening the markets to professional customers, in 2005 the CRE set up consultation bodies (Consumers Working Group or CWG, Electricity Working Group or EWG and Gas Working Group or GTG) encompassing all the players concerned: consumer representatives, suppliers, system operators and public authorities.

The main objectives of these working groups are to analyse the conditions of consumer information and protection, and define operational solutions for total market openness, while keeping things simple for the consumer and maintaining consistency between electricity and natural gas. Since their creation, they have helped define the operational procedures shared by all professionals in the sector.

◂ *The operational working groups on "Procedures and New Services" prepare for the arrival of smart meters. .*
The Procedures and New Services operational working group (OWG) met on 5 April 2013.
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Their work led to changes in the network usage contracts, as well as changes in the system operators' information systems to make them easier for suppliers to use. They work to help consumers by establishing suppliers' customer charters, setting out guidelines for good practice in sales communication, and improving the way bills are presented.

Alongside the EWG, GWG and CWG, the CRE has created specific groups to deal with certain issues. Since 2008, the Concertation Gaz (gas consultation group), chaired by GRTgaz and TIGF, has been examining the rules on access to the natural gas transmission networks. Since March 2011, the Concertation Gaz naturel liquéfié (liquefied natural gas consultation group), co-chaired by Elengy and Fosmax-LNG, has been working on the conditions of access to regulated LNG terminals.

1.2. In 2012, the CRE made changes to the consultation bodies to monitor the development of smart metering and further involve consumers in its work

Nearly five years after the markets were completely opened up to competition, the outcome of the consultation groups established

Concertation Gaz working group and changes to the balancing rules in France

To ensure the correct operation of the gas system and supply security for consumers, gas injections and withdrawals must be carefully balanced. Given the flexible nature of the gas system, balancing must be performed on a daily basis (every thirty minutes for electricity).

The European network code which is currently being finalised makes provision for the introduction of balancing rules, based on the market, in order to encourage suppliers to minimise imbalances.

In France, the work relating to changes in the balancing rules applicable to the GRTgaz and TIGF networks began in 2010, at the CRE's request, as part of the Concertation Gaz. This work, which involved all market players and was steered by the two transporters, made it possible to:

- *regularly inform French players on the direction and progress of European work;*
- *contribute to European discussions on defining the network balancing code;*
- *propose ways to change the balancing rules, moving towards a target in line with the network code by 2015.*

In 2012, the Concertation Gaz working group on balancing met seven times. GRTgaz and TIGF proposed five changes to their balancing rules to the CRE. The CRE led three public consultations and issued two deliberations. ■

Customer journey: a procedure for every situation

When a customer asks to change supplier, this is deemed to be a termination of their agreement with the previous supplier, to avoid burdening the customer with excessive paperwork. This practical measure is an example of an operational procedure resulting from consultation among operators at the working groups that meet under the aegis of the CRE.

Likewise, other common situations like new contracts, connections and terminations, as well as abnormal situations like malfunctioning meters or fraud, are also covered by procedures that form a framework which must be followed by market players. This standardisation of procedures concerns all stages of the customer journey and governs relationships with suppliers and distribution system operators. It enables new suppliers to conduct their business activities without encountering any delays or obstacles, and guarantees a transparent and efficient system for consumers. ■

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under the aegis of the CRE is broadly positive. In fact, the procedures in place (changing supplier, new contracts, termination...) have proved to be robust and effective. They have been integrated into the system operators' information systems. From now on, the work done by these groups is part of a strategy of continuous improvement. The aim is to reduce the time it takes to change supplier by as much as possible, correct the supplier change indices and improve the data provided to the balancing managers.

An additional step was taken with the deliberation of 22 March 2012, whereby the CRE proceeded with a reorganisation of its consultation groups. This reorganisation had a dual aim: continuous improvement of the market operating rules, and effective preparation for the future organisation of the markets, in connection with the introduction of smart metering.

To this end, an operational working group (OWG) on "Procedures and New Services" has been created in addition to the working groups in charge of electricity and natural gas procedures. It is responsible for setting market rules ahead of the arrival of smart meters *(see box p. 19)*. The "Smart Metering Project Monitoring" working groups continue to monitor the progress of the distribution system operators' projects for smart metering systems.

The other working groups must also take account of the impact that the arrival of smart meters will have on their work.

The deliberation of 22 March 2012 also decided to abolish the CWG in favour of incorporating consumer representatives into the EWG and GWG, in particular the working groups on procedures and smart metering, so they can be more directly involved in this work.

1.3. Until smart meters arrive, there remains a need for continuous improvement in current processes

In 2012, the working groups dealing with procedures and relationships between suppliers

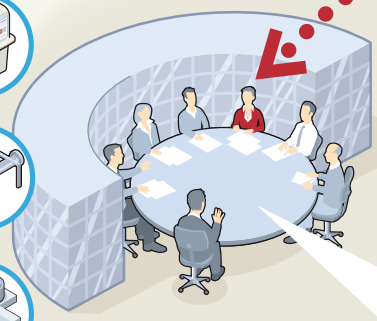
Consultations **under the aegis** of the CRE

EWG *(Access to electricity distribution networks)*

GWG *(Access to gas distribution networks)*

Gas consultation procedure *(Access to gas transmission networks)*

LNG consultation procedure *(Access to LNG terminals)*



*Where appropriate, the **CRE** ensures **consistency** and **proper coordination** between the various authorities.*

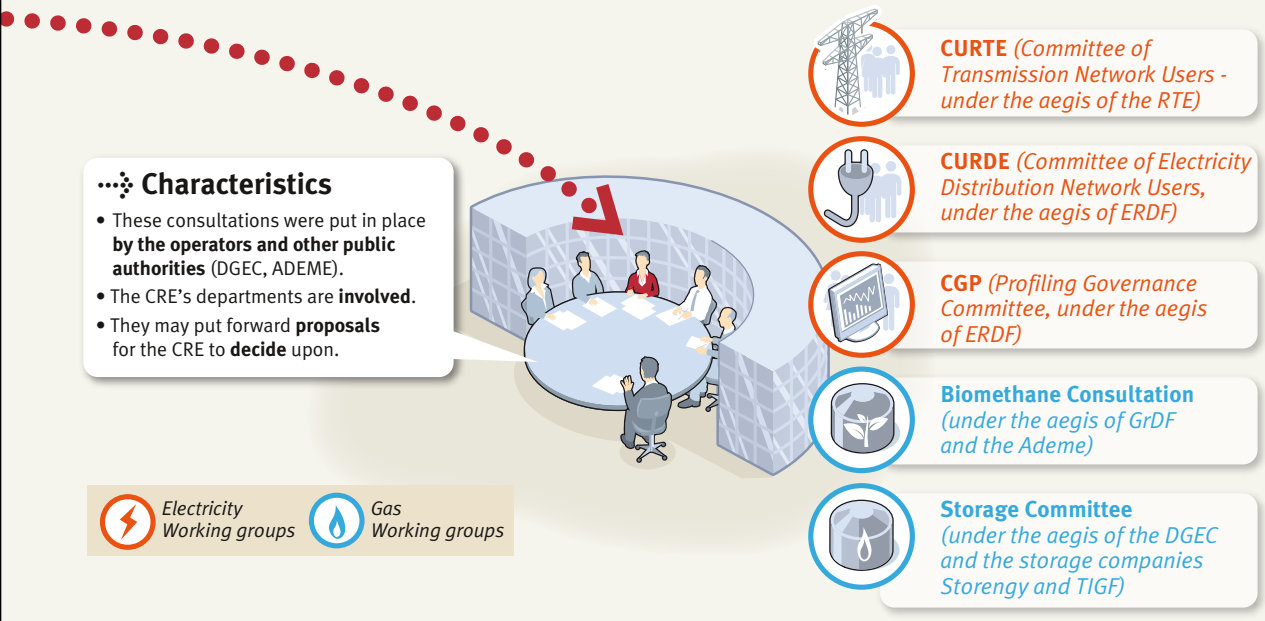
Characteristics

- These consultations were all put in place following a **deliberation by the CRE**.
- The CRE guarantees that they **operate correctly**.
- The CRE's departments are **involved and active** in them.
- They allow us to investigate various issues relating to the **conditions of access to regulated infrastructures**, together with all the market players.
- Their work may result in:
  - **proposals** for the CRE to **decide** upon;
  - **procedures that "standardise and manage"** relationships between players;
  - **sharing information** and experience.

and distribution system operators (DSOs) in electricity and gas worked in the areas of supplier-initiated terminations (SIT) and cut-offs for unpaid bills (CUB). This exchange of views between players led to the development of a number of SIT procedures setting out the conditions under which customers in situations of fuel poverty can avoid being cut off. An addition has been made to the CUB procedure for gas: customers can now use inter-bank payment order as an additional method of payment, and will not be cut off if they are able to present a certificate of admissibility for a bankruptcy application issued within the last three months. For electricity, the players involved were not able to reach a consensus on any particular procedure. However, work will start again in 2013 with the arrival of smart metering. In electricity, ERDF has cut the timeframe for technical inspections when changing supplier. In gas, the minimum timeframe for changing supplier will be gradually reduced from 21 to 4 calendar days depending on the speed of each DSO's information system. Other improvements to customer procedures resulted from the work of the EWG and the GWG, for instance setting up an indicator to monitor response to cut-off requests in the event of unpaid electricity bills, and an indicator to monitor the quality of the gas complaints handling procedure.

The aim of the Recoflux working group is to monitor performance and improve the information systems used by DSOs to reconstruct electricity flows. This flow reconstruction mechanism was put in place to assess any discrepancies between injections and withdrawals of energy on the network, based on each balance manager's estimated withdrawals and injections, on a half-hourly basis. To achieve this, the half-hourly consumption of customers whose meter readings have been taken manually is reconstructed based on typical consumption profiles for each category of customer. These profiles are based on a so-called normal reference temperature. Temperature gradients, that is to say, coefficients that measure the sensitivity of electrical consumption to real temperature, are applied to take account of the discrepancies between real temperatures and the normal temperature. In 2012, the Recoflux working group embarked upon the important task of extending the temperature gradients for the

Consultations to which the CRE **contributes**



months of May and September, in order to correct any anomalies detected using the quality indicators that were put in place. Its proposals will be considered by the profiling governance committee, so they can then be incorporated into the profiling rules.

In gas, a list of specifications was drawn up and adopted to provide a framework for changes in profiles. Its application led to the current profiles being renewed for the period from 1 April 2013 to 31 March 2014, and being updated to reflect new reference temperatures. In 2013, the consultation groups will work together to define a new method of constructing profiles.

In order to ensure the continuous improvement of the processes involved in allocating gas to the transmission-distribution interfaces, the working group started monitoring supply contracts declared to be in the wrong tariff option, and examined the rate at which annual reference consumptions (ARC) are updated. It also discussed the issue of GrDF's loss-buying profile. The players also updated the procedure for "Rules on the allocation of quantities to the transmission-distribution interfaces" to take account of specificities relating to biomethane injection.

Finally, operational service rules were drawn up in order to enable a distribution system operator to be supplied by another distribution system operator upstream. These rules are essential to the development of new natural gas concessions.

Moreover, dealing with issues relating to information systems remains a priority for the CRE. In electricity, as well as working on continuously improving its current information system and compliance with the provisions in force, the ERDF presented the key objectives and main deadlines of the Ginko programme to suppliers. This programme makes provision for a thorough overhaul of the distributor's information system ahead of the arrival of smart meters. In gas, the IS working group continues to monitor OMEGA, a website for communication between suppliers of natural gas and GrDF, receives requests for changes and prepares for upcoming changes in the operator's information systems.

▸ *In 2012, the CRE made changes to the consultation bodies in order to monitor the development of smart metering and involve consumers more in their work. Françoise Thiebault (AFL Paris) at the meeting of the operational working group (OWG) on Procedures and New Services of 5 April 2013.*

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2. THE CRE IS COMMITTED TO CONSULTATION DURING THE DELIBERATION PROCESS AND TRANSPARENCY IN ITS WORK

The Energy Code sets out the principle of consultation with market players by the CRE before the regulator makes certain deliberations. This is the case when setting the tariffs for the use of the public electricity and natural gas transmission and distribution networks, but also in the area of tariff-setting for ancillary services delivered exclusively by the system operators. This year, the CRE will also be consulting users of the public electricity and natural gas transmission networks when it is required to come to a decision on the transmission system operators' ten-year investment programme.

Moreover, the CRE is committed to regularly consulting market players, even for decisions where such a consultative approach is not required by any legislative or regulatory texts. This consultation of the market takes the form of an ad hoc public consultation, or a series of hearings before the board of the CRE. This approach is in line with the 2011 public report by the Conseil d'État, *"Consulter autrement, participer effectivement" ("Consult differently, participate effectively")*, which recommends extending open consultation as far as possible upstream of the decision-making procedure, and *"reconciling, in a way that is appropriate and proportionate to each situation, both forms of consultation - classic consultation by institutional bodies, and the more recent form of consultation open to all stakeholders in the decision being made"*.

23
public consultations
in 2012.

This is an increase of
156%
on 2011.

2.1. Consultation procedures are increasing in number

Given their structuring function, some of the CRE's deliberations systematically involve one or more public consultations. In 2012, this was the case for the tariffs for the use of the natural gas transmission and distribution networks, tariffs for the use of LNG terminals, the merging of gas balancing zones and preparation for the new tariffs for the use of the public electricity networks.

This year, the CRE ran 23 public consultations, compared to 9 in 2011, and received 464 responses. 256 players spoke at hearings before the board in 2012, compared to 83 in 2011.

This consultation may also take the form of workshops or round tables for sector players.

Public consultations by the CRE in 2012

Topic of the consultation	Consultation dates	Number of responses
Structure of tariffs for the use of the public electricity transmission and distribution networks	*6 March – 6 April 2012*	*38*
Procedures for processing requests to connect production facilities to the public electricity distribution networks	*19 March – 30 April 2012*	*43*
Creation of a single North balancing zone for H and L gas on the GRTgaz network	*29 March – 23 April 2012*	*17*
Ten-year plan to develop the French electricity transmission network, drawn up by RTE	*10 April – 10 May 2012*	*12*
Tariff-setting principles for additional services delivered exclusively by operators of natural gas distribution networks	*16 April – 11 May 2012*	*16*
Changes to the balancing systems of GRTgaz and TIGF	*7 May – 24 May 2012*	*15*
Changes to the gas marketplaces in France	*31 May – 22 June 2012*	*31*
Regulatory framework for tariffs for the use of the public electricity grid	*11 June – 20 July 2012*	*27*
Full access to intraday electrical interconnection capacity	*19 June – 23 July 2012*	*13*
GRTgaz and FluxSwiss tender to create entry capacity from Switzerland to France at the Oltingue interconnection point	*22 June – 10 July 2012*	*6*
Intraday flexibility service on the GRTgaz transmission network	*26 June – 23 July 2012*	*14*
Service offered by Storengy to transfer quantities of stored gas from the Sediane Littoral group to the Serene Sud group	*29 June – 6 July 2012*	*19*
Changes to the balancing rules at GRTgaz	*19 July – 4 September 2012*	*21*
Tariffs for the use of LNG terminals	*20 July – 14 September 2012*	*11*
Sale of transmission capacities at the border between the North and South zones of GRTgaz, and at the interface between GRTgaz and TIGF	*30 July – 7 September 2012*	*23*
Tariffs for the use of the gas transmission network	*31 July – 21 September 2012*	*30*
General principles for calculating the contribution paid to the contracting authority in charge of connecting to the public electricity networks	*3 October – 23 October 2012*	*17*
Sale of transmission capacities at the border between the North and South zones of GRTgaz	*24 October – 6 November 2012*	*31*
Tariffs for the use of the gas transmission network	*29 October – 9 November 2012*	*16*
Fourth tariffs for the use of the public electricity grid	*6 November – 10 December 2012*	*28*
Rules on drafting procedures for processing requests to connect to the public electricity networks, and monitoring their implementation	*12 December – 31 January 2013*	*28*
Principles for setting tariffs for the use of the public natural gas distribution networks of local distribution companies, and additional services delivered exclusively by natural gas distribution system operators	*14 December – 14 January 2013*	*15*
Changes to the balancing rules at GRTgaz and TIGF	*20 December 2012 – 21 January 2013*	*21*

Setting the TURPE (tariff for the use of public electricity grids): all stakeholders' opinions are sought at all stages of the process

Setting the tariff for the use of public electricity grids (tarif d'utilisation des réseaux publics d'électricité - TURPE) is a process that lasts at least two years, in which the CRE engages in a dialogue with all stakeholders: system operators, suppliers, producers, consumers, public authorities, distribution organisation authorities, etc. These exchanges of views are interspersed with public consultations which enable the regulator to inform stakeholders of its position and seek the opinions of all parties involved, in total transparency.

The current tariffs, known as "TURPE 3", will apply until 1 August 2013. Preparations for the next set of tariffs (TURPE 4) have been under way since 2010. In this context, the CRE carried out three public consultations in 2012:

- *in March, on tariff structure, which forms the basis for the distribution of costs among the various network user categories;*
- *in June, on the regulatory framework;*
- *in November 2012, on system operators' requests for tariff changes and changes planned by the CRE following the previous two consultations.*

In addition to these public consultations, the CRE arranged hearings for all stakeholders in July and December 2012.

The TURPE is paid by all network users. It compensates electricity network operators for the costs they incur while maintaining and developing the infrastructure. ■

256
players spoke at hearings
before the board in 2012.
This is an increase of
208%
on 2011
(83 players heard)

2.2. The main decisions were taken following a consultation process

The CRE involved all market players in preparing new tariffs for the use of the natural gas transmission networks, which were the subject of the deliberation of 13 December 2012. In fact, alongside the work carried out as part of the Concertation Gaz, the CRE led five public consultations on the following subjects:

- the creation of a single North balancing zone for H and L gases on the GRTgaz network;
- changes to the gas marketplaces in France;
- intraday flexibility service on the GRTgaz transmission network;
- its position on the regulatory framework, tariff structure and services of the transmission system operators;
- its position on the tariff levels and lists of transmission system operators.

In addition to these various consultations, the CRE organised two workshops (21 March and 4 May 2012) and a round table (10 July 2012) on changes to the marketplaces, as well as another round table (13 November 2012) about the tariff levels and lists of GRTgaz and TIGF. Finally, the CRE listened to GRTgaz and TIGF, and their shareholders, at several hearings requested by them.

The same consultative approach was taken when setting the tariff for the use of LNG terminals. The deliberation of 13 December 2012 was an opportunity for methane operators to speak at several hearings, and to launch a public consultation running from 20 July to 14 September 2012.

Regarding the balancing rules on the GRTgaz gas transmission network, the CRE ran a public consultation of market players from 19 July to 4 September 2012 before approving the rules submitted to it by GRTgaz. It received and took account of the 21 contributions from gas transporters, infrastructure managers and associations.

2.3. The main opinions resulting from the consultations

Article L.445-2 of the Energy Code states that for regulated natural gas sales tariffs, the CRE shall carry out *"any consultation with energy market players that it deems useful"* before formulating its opinion or proposals. However, the texts do not expressly make provision for

A national consultation on marketplace organisation since 2009

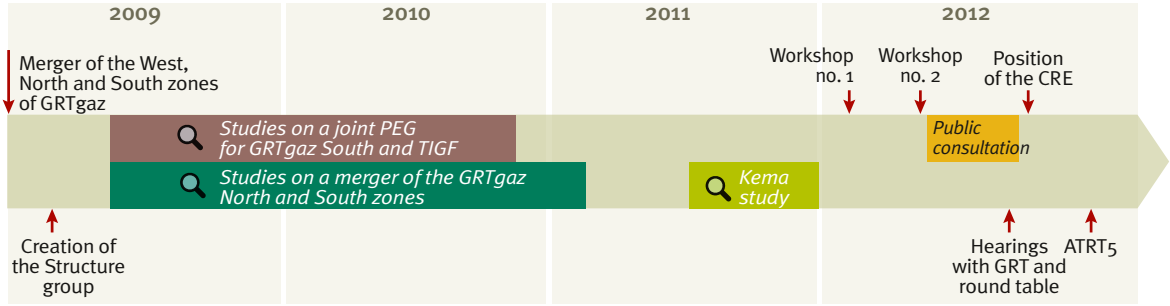
The CRE's deliberation of 18 September 2008 created an authority for consultation on the rules governing the transport of gas on the transmission networks: the Concertation Gaz, steered by the two transporters, GRTgaz and TIGF. One of the main reasons for creating this authority was the high demand among many market players for a continued reduction in the number of balancing zones, in order to improve the way the French gas market operates.

All options were studied with the market players, leading to a deliberation by the CRE on 19 July 2012 setting out its position on changes to the organisation of the French gas market:

– three studies were carried out between 2008 and 2012: an initial one on the terms of merging the North and South zones on the GRTgaz network, a second on the creation of a common gas exchange point (PEG) for GRTgaz South and TIGF, and a final study conducted by the Kema agency to analyse a merger of the North and South zones based on contractual mechanisms;

– two additional working groups were organised by the CRE in 2012, to put the results of these studies into perspective and share their findings and overall directions;

– three public consultations were carried out by the CRE, in addition to hearings with GRTgaz and TIGF, and round tables with transporters and industrial companies connected to the transmission networks.



consultation on regulated electricity sales tariffs. Nonetheless, the CRE wanted to consult market players before giving its opinion on regulated tariffs for both energy sources.

It therefore consulted three times with the DGEC, GDF SUEZ, representatives of alternative suppliers and consumer associations before giving its opinion (deliberation of 19 July 2012 for regulated electricity sales tariffs, and deliberations of 20 December and 17 July 2012 for regulated natural gas sales tariffs.)

The CRE also consulted market players on the interruptibility service. This service consists of cutting off the electricity supply to electricity-intensive consumers, without prior notice and in exchange for compensation, in order to ensure supply security during peak periods. Before giving its opinion in April 2012 on the draft decree, in application of article L. 321-19 of the Energy Code relating to this service, the CRE arranged a hearing with RTE where it gave information on its technical aspects, which it believes will ensure the service is used effectively. There were also hearings with Energy Pool, Arkema and Rio Tinto Alcan.

Finally, the introduction of a capacity mechanism was another project that gave rise to many hearings arranged by the CRE in 2012. Its opinion of 29 March on the draft decree in application of article L.335-6 of the Energy Code, relating to the scheme for supplier contributions to electricity supply security and the introduction of a capacity mechanism, was preceded by hearings with the stakeholders: RTE, EDF, GDF SUEZ, Direct Energie and the French Independent Association of Electricity and Gas (Association française indépendante de l'électricité et du gaz - AFIEG).

▸ *Website, bimonthly newsletter* Décryptages, *interactive learning modules: all the CRE's communication tools follow an educational approach.*

2.4. Transparency in the work of the CRE

The CRE is in charge of ensuring transparency on the energy markets, in particular though its monitoring missions, which are the subject of an annual report *(see Appendices p. 135)*. It also contributes to transparency through the Energie-Info service *(see p. 12)*.

The CRE also strives to ensure the transparency of its own work, in order to ensure high standards of quality and understanding by stakeholders. Its deliberations, the consultations that prepare for these, and its reports are accessible on the website www.cre.fr. This website was fully redesigned in 2011 and fits in with the educational approach followed by the CRE in all its communication tools *(see above)*.

3. CONSULTATION, THE FOUNDING PRINCIPLE IN THE CONSTRUCTION OF THE EUROPEAN ENERGY MARKET

In the European energy regulation sphere, the consultation principal plays a central role. The common operating rules for the whole European energy market are set by regulators cooperating within the CEER and the ACER, and through consultation among sector players.

The development of the European regulatory framework applicable to the electricity and natural gas markets is the result of an important consultation process between stakeholders, who can make their contribution via numerous authorities. Consultation ensures that as many people as possible adhere to these rules, thereby making implementation easier.

As an example, the European forums in Florence for electricity, Madrid for gas and London for questions relating to the retail market and consumers were created by the European Commission with considerable support from regulators. Once or twice a year, they are attended by the players involved in these specific areas.

In 2012, a consultation group of the ACER consisting of electricity market players met seven times. Alongside the expert groups, they worked with the regulators and Agency teams to prepare guidelines on the monitoring of the energy wholesale markets and framework guidelines relating to interoperability and gas transmission tariffs.

As part of the ACER and their association, the CEER, the European regulators regularly mobilise significant resources in order to organise public consultations and working groups.

Due to its high level of involvement on the European level and within these various authorities, the CRE makes a significant contribution to this work.

3.1. An example: drafting the network codes

The process of drafting the network codes, as set out in the third energy package, provides a perfect illustration of consultation at the European level, which is based on organised consultation within each Member State.

Initially, within the ACER, the European regulators define the framework guidelines containing the main principles for drafting the network codes. These framework guidelines are the subject of an official stakeholder consultation, in particular with the European networks of transmission system operators for electricity (ENTSO-E) and gas (ENTSOG). Next, it is down to the ENTSOs to draft network codes that comply with the framework guidelines set out by ACER, which the latter can then submit to an official consultation involving all the parties.

The feedback received after drafting the first framework guidelines and the first European network codes proved the importance of dialogue between regulators and the ENTSO, which must take place as far in advance and as regularly as possible.

3.2. Balancing: the CRE raises awareness among French players of the consequences of European provisions on the operation of the national electricity market

For several years, the CRE has been working to set up practical projects with the aim of developing balance trading, as well as establishing the position of the regulators' association on this matter. This has led to it steering the framework guideline drafting process in this area, which has promoted the involvement of French players throughout the project.

From the pre-study phase onward, the CRE's departments ensured that the stakeholders had access to all the information necessary to

▸ *The CRE's consultative approach is in line with the 2011 public report by the Conseil d'État, "Consulter autrement, participer effectivement" ("Consult differently, participate effectively"), which recommends extending open consultation as far as possible upstream of the decision-making procedure.*
Meeting of the operational working group (OWG) on Procedures and New Services of 5 April 2013.
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understand the work being done on a European scale: organising an ACER information workshop in Ljubljana in late 2011, presentation and bilateral discussions with players, and information points within the consultation groups. From April to June 2012, the ACER ran a public consultation on the framework guideline project. During this consultation, an interactive workshop was held at the CRE, with the dual aim of taking initial observations made by French players into consideration, and enabling them to go into more depth in their reflections. The public consultation was particularly productive, gathering comments from around 50 players (producers, consumers, traders and system operators). A second workshop took place in October 2012, during which the departments described the definitive content of the framework guidelines. In particular, the CRE departments were able to raise awareness of the impacts of the new European framework, and the necessary changes to the operation of the French balancing mechanism.

3.3. Allocation of gas transmission capacities, managing congestion at gas interconnections: the CRE contributes to the European consultation with its work in France

The drafting of the network code on the allocation of gas transmission capacities (CAM) and the guidelines on congestion management procedures (CMP) is part of a long, complex harmonisation process. The European Commission, ACER and ENTSOG have been involved since 2009 in drafting these texts, a process which requires regular dialogue with market players to inform them of any planned changes.

The CRE, in charge of drafting the CAM framework guidelines alongside the German regulator, has been a driving force throughout this pilot project on the European level. The CRE's departments have raised awareness among French market players of the stakes involved in these provisions, via the Concertation Gaz working group, by communicating information notices and organising information workshops with the DGEC. The implementation of the CAM network code will result in the auctioning of grouped capacities at the interconnection points between

Elsa Cohen,

Consumption sector manager at the Trade Union Confederation of Families (Confédération syndicale des familles - CSF) and co-manager of the OWG on Procedures and New Services in gas

Since the reorganisation of the CRE's working groups in March 2012, consumer representatives no longer convene "separately" but are direct stakeholders in the EWGs and GWGs that define the operational practicalities of the electricity and gas markets. Elsa Cohen gives feedback on the consultation process in which the Confédération syndicale des familles took part, in the context of defining the procedures and new services that will accompany the development of smart gas metering.

What did the consultation contribute to the progress of the working group?

Consultation enables exchange, discussion and sometimes confrontation between the various stakeholders. In the case of the OWG on Procedures and New Services in gas, it provided a chance for two areas which were not really familiar with each other, energy professionals and consumers, to get to know each other and understand their respective areas of contention. Once difficulties have been clearly put forward and identified, it becomes much easier to work together to find solutions that most people are happy with. This does not stop us from reaffirming our principles with conviction when discussions become heated.

What practical progress did the consultation make?

Consumer representatives regularly remind us how important it is to remember the concept of acceptance of the new communicating meters by consumers, as this is not something we should take for granted. Likewise, participation by consumer associations in this working group enabled us to re-examine certain procedures and bring them in line with operations in the field, and consumers' daily life. For example, the idea of removing the possibility of a customer taking their own reading was not appropriate for us. In the event of a meter malfunction, a technician would have to be called out to take a reading, or make an estimate. This ran counter to the stated functions of the smart meter. In the end, we decided the customer should be able to take their own reading, if remote reading proved impossible.

There were many discussions on the subject of the guarantee and the need for the consumer to give their informed consent for access to their consumption data. While everyone agrees on the need for express permission from the customer to authorise access to this information, questions remain about the nature of this authorisation. For suppliers, oral permission is enough. For us, it must be in writing and signed by the consumer (especially in cases where the customer has been approached by a new supplier) for a limited period of access. This point will be raised again at our next plenary meeting in June 2013.

What makes a successful consultation and what do you expect from the CRE in this process?

It think we can say a consultation is a success when all stakeholders can see that their arguments have been taken into account by the group, even if it means some compromises may have to be reached. We also have to learn to accept that the majority of the group may not agree with us. The group should nonetheless be capable of hearing representatives' viewpoints according to their own interests. In practice, unanimous opposition to a measure by consumer association representatives can be revealing, for example. It may mean we can expect consumers to reject this measure in the future.

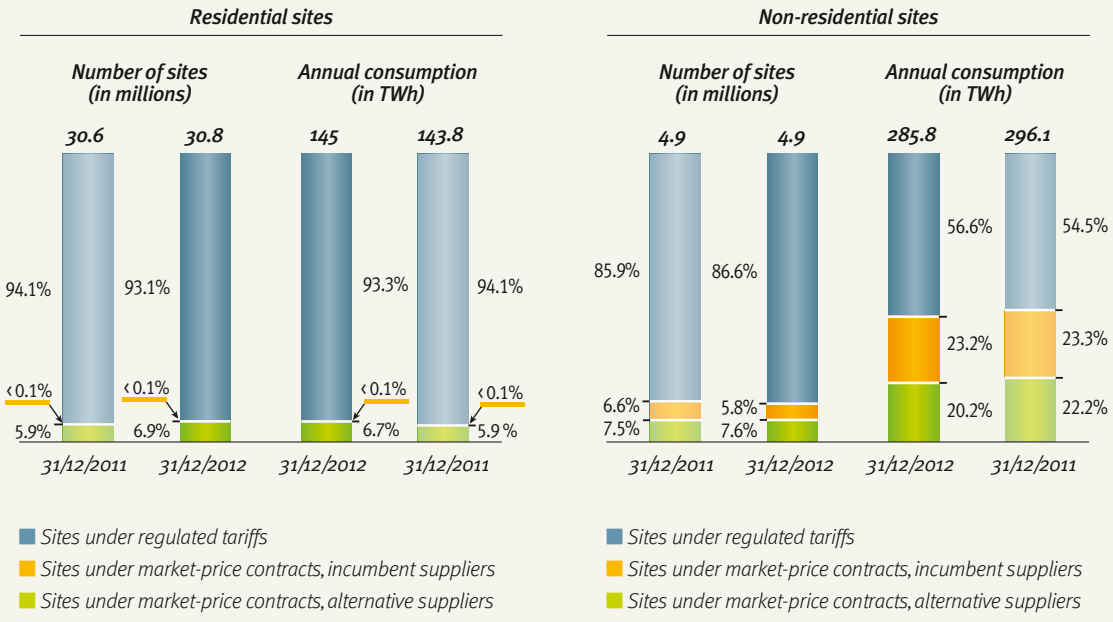
The CRE's role is to facilitate understanding between players and ensure that everyone's interests are reflected, in a process with very high economic stakes where priorities (those of the DSOs, suppliers and consumers) diverge. This guarantee is an essential condition for real, effective involvement of consumer representatives in the consultation process. ■

neighbouring transmission networks, on common marketing platforms. With a view to this, one of the provisions in the CAM framework guidelines (sunset clause) required the grouping of the output capacities for one zone and input capacities for another zone to take place within five years. This was strongly opposed as it would have forced transporters to renegotiate their current long-term contracts before their expiry date. The CRE voiced these concerns at the European level, where it underlined the risks associated with such a measure. At the end of the debates, the contested provision was turned into a "best efforts" clause: it requires transporters to engage in discussions about grouping their capacities, without being obliged to achieve any specific result.

Since 2012, the consultation with French players on these subjects has taken a different form, insofar as it now relates to the anticipated implementation of these provisions in France. ■

KEY FIGURES 2012
ELECTRICITY RETAIL MARKET

ANALYSIS OF THE **ELECTRICITY** RETAIL MARKET



▶ **The number of residential customers with market-price contracts grew by 17% in 2012 (+307,000 sites), 25,500 additional sites on average per month.**

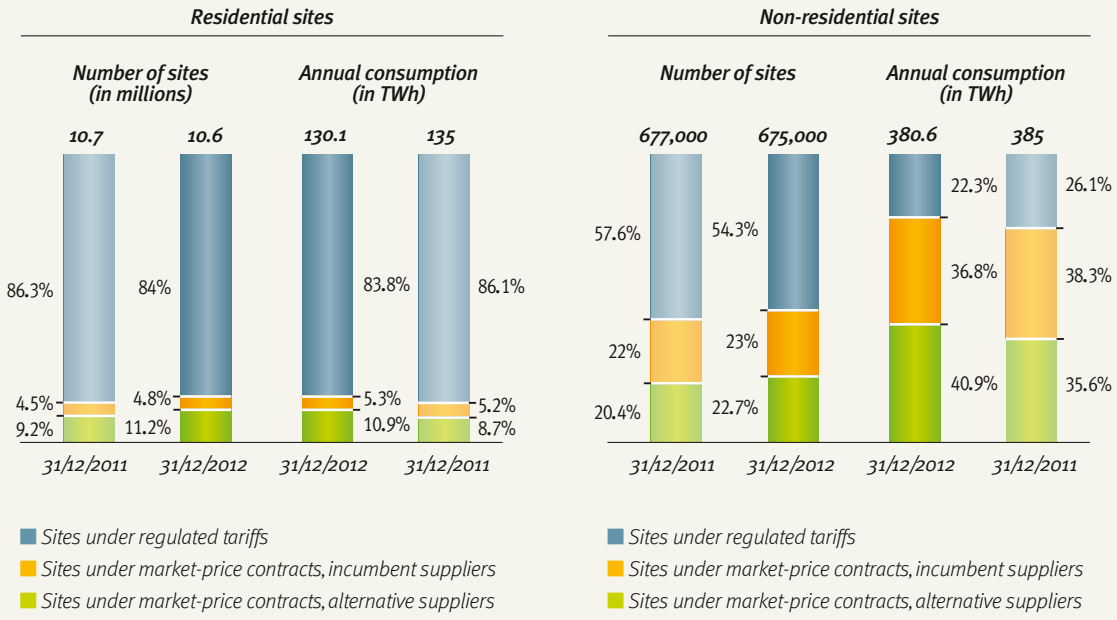
▶ **The number of non-residential sites with market-price contracts fell 4% in 2012 (-31,000 sites).**

2,145,000
residential customers
of 30.8 million residential customers had market-price contracts at the end of 2012.

4,821,000
supply contracts
were activated during 2012, of which 11% were with an alternative supplier.

KEY FIGURES 2012
GAS RETAIL MARKET

ANALYSIS OF THE GAS RETAIL MARKET



▶ **The number of residential customers with market-price contracts grew by 17% in 2012 (+245,000 sites).**

▶ **The number of non-residential sites with market-price contracts grew by 8% in 2012 (+22,000 sites).**

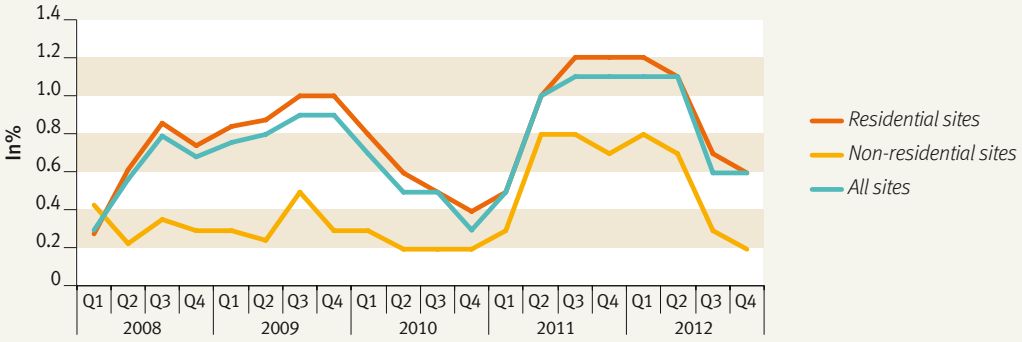
1,704,000
residential customers
of 10.6 million residential customers had market-price contracts at the end of 2012.

1,260,000
supply contracts
were activated during 2012, of which 33% were with an alternative supplier.

KEY FIGURES 2012

ELECTRICITY RETAIL MARKET

SUPPLIER SWITCHING RATE ON THE **ELECTRICITY** MARKET



NATIONAL **ELECTRICITY** SUPPLIERS

▶ **National electricity suppliers[1] declared to the CRE and active[2] on 31 December 2012**

1 – National suppliers are those serving over 90% of the national territory.
2 – An electricity supplier is deemed active in a given segment if they meet one of these conditions:
- they have at least one site on a single-contract basis;
- they are a balancing manager for at least one site on a CARD/CART (contract for access to the public transmission/distribution network);
- they are a balancing manager and have delivered part of a site's electricity consumption during the previous quarter.

-4.0%

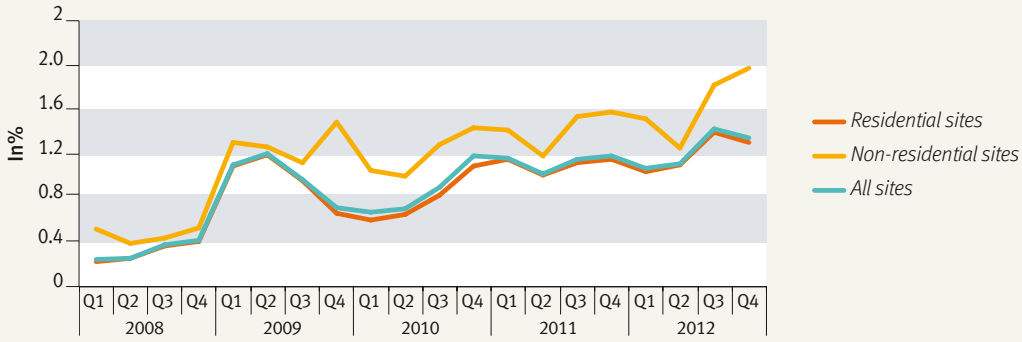
Greatest difference recorded in 2012 between market offer and the regulated price of electricity sales (incl. taxes) for an average 6 kVA base residential customer consuming 2,400 kWh per year

+19%

Increase in electricity bills, including taxes (between January 2007 and January 2013) for an average 6 kVA base customer consuming 2,400 kWh per year.

KEY FIGURES 2012
GAS RETAIL MARKET

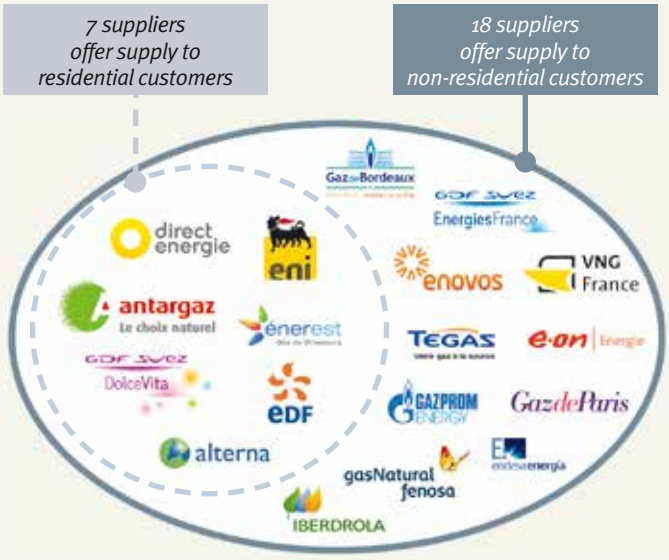
SUPPLIER SWITCHING RATE ON THE **NATURAL GAS** MARKET



NATIONAL **NATURAL GAS** SUPPLIERS

▶ **National natural gas suppliers[1] declared to the CRE and active[2] on 31 December 2012**

1 – National suppliers are those serving over 90% of the national territory.
2 – A natural gas supplier is deemed active in a given segment if they meet one of these conditions:
- they supply at least one site with natural gas;
- they are a balancing shipper for at least one site in CAT;
- they are a balancing shipper and have delivered part of a site's gas consumption during the previous quarter.

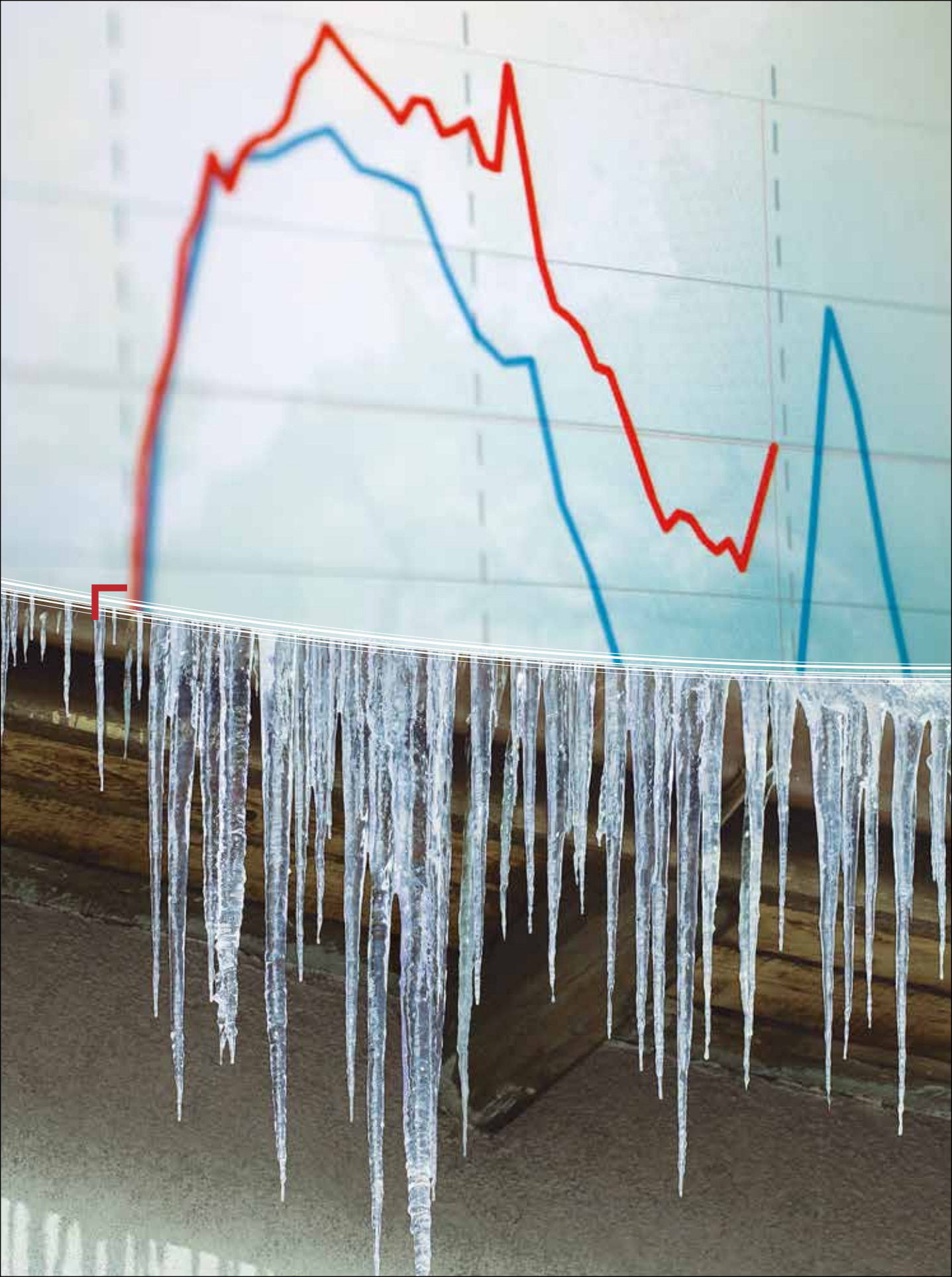


-12%

Greatest difference recorded in 2012 between market offer and the regulated sale price (incl. taxes) for residential customers with gas heating consuming 17 MWh per year.

+42%

Increase in gas bills, including taxes between January 2007 and January 2012) for a residentialcustomer with gas heating consuming 17 MWh per year.



THE EUROPE OF ENERGY PUT TO THE TEST DURING THE FEBRUARY 2012 COLD SPELL

The exceptional weather that marked the start of 2012 is a real practical case study. It was a chance to measure the importance of network solidarity and the fluidity of the markets in Europe. In a context where many European countries are highly dependent on imported gas, with a power system where supply must be balanced with demand at all times, this example provides a concrete illustration of countries' interdependence when it comes to securing their energy supplies. It also demonstrates how the construction of a Europe of energy is now more of a necessity than ever before.

102.1 GW

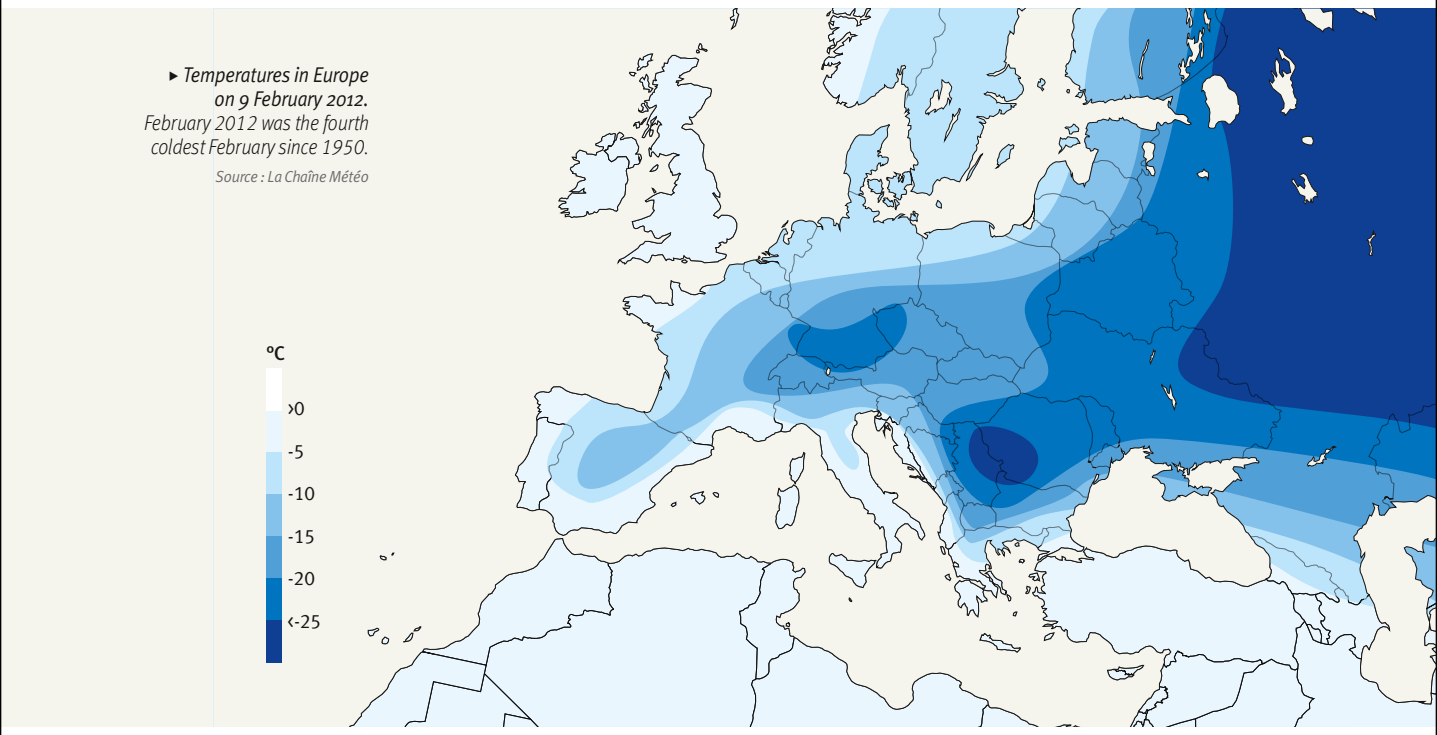
Peak demand for electrical power was reached at 19:01 on 8 February.
This was the highest since 15 December 2010, which saw a peak demand of 96.71 GW.

KEYWORDS

Peak demand

Network solidarity

Market coupling



▸ *Temperatures in Europe on 9 February 2012. February 2012 was the fourth coldest February since 1950.*

Source : La Chaîne Météo

1. WINTER 2012 WAS MARKED BY AN EXCEPTIONAL COLD SPELL AND HISTORIC PEAK DEMAND AND WHOLESALE PRICES

1.1. A particularly severe and prolonged cold spell

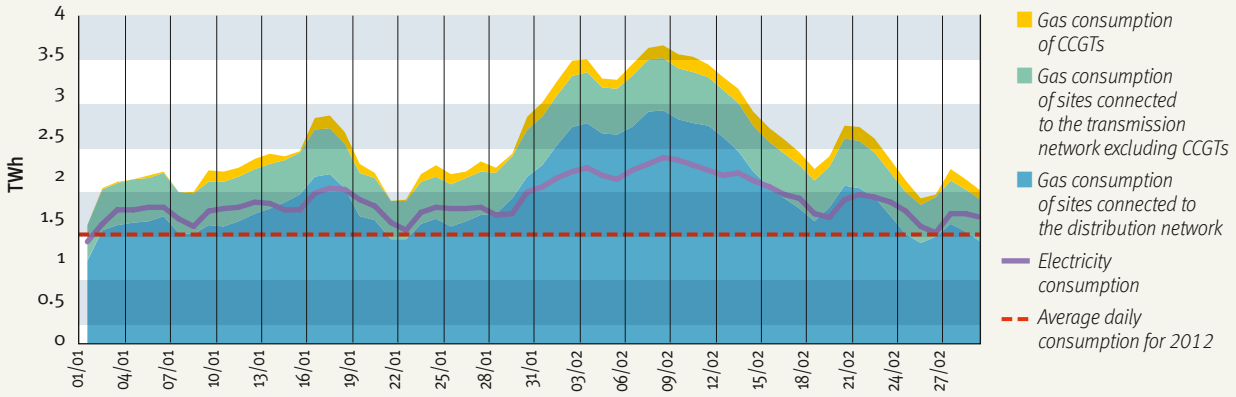
From 1 to 13 February 2012, Europe endured an intense cold spell. During this period, average temperatures in France and a large part of the European Union were over 5 degrees lower than reference temperatures, making it the fourth coldest February since 1950. There had not been such a cold February in France since 1986. This cold spell was also remarkable for its length. In fact, while cold spells of this intensity (5 to 10 degrees colder than the seasonal norm) are regularly observed, they rarely last more than a few days.

The thermal inertia of buildings and adaptation of thermostats in private homes limit the impact of a short cold spell. However, when a cold spell lasts longer, these two effects no longer apply: energy consumption increases at an even higher level than that observed during the first few days of the cold spell.

1.2. Record-breaking gas and electricity consumption

It was in this context that gas and electricity consumption reached record highs during the second week of February.

In electricity, peak demand for electrical power was reached at 19:01 on 8 February, culminating at 102.1 GW. This was the highest since 15 December 2010, which saw a peak demand of 96.71 GW. Energy consumption usually peaks at 19:00 in the winter, since many energy-intensive activities overlap at that time: people go home and turn on the heating, lights and home appliances, while businesses are still consuming high amounts of energy *(see box)*. Guaranteeing a balanced power system involves being able to meet this instantaneous high demand for by making use of increasingly expensive means of production, as well as imports. It also requires efforts to control energy demand in line with the "3x20" objectives of the climate-energy package, which aims to increase energy efficiency by 20% by 2020 in the European Union. Load management can also help achieve this. ▸ page 114



▲ *Natural gas and electricity consumption in France during the cold spell.*
The average daily consumption curves for natural gas and electricity overlap (1.34 TWh).
Sources: GRTgaz, TIGF, RTE - Analysis: CRE

In gas, demand peaked on two consecutive days, on 7 (3.643 TWh) and 8 February (3.673 TWh), breaking the previous record dated 8 January 2010 (3.282 TWh). In comparison, average consumption was around 2.200 TWh per day during the same period in 2011. This increase was mainly caused by customers of the distribution network and production of electricity using gas. At the European level, the strain on the gas systems was exacerbated by the restrictions on imports from Russia, and by the decision of the Italian authorities1 to require transporters to "maximise" gas imports to Italy. These situations had an impact on the operation of the French interconnections and consequently the gas exchange points (PEG).

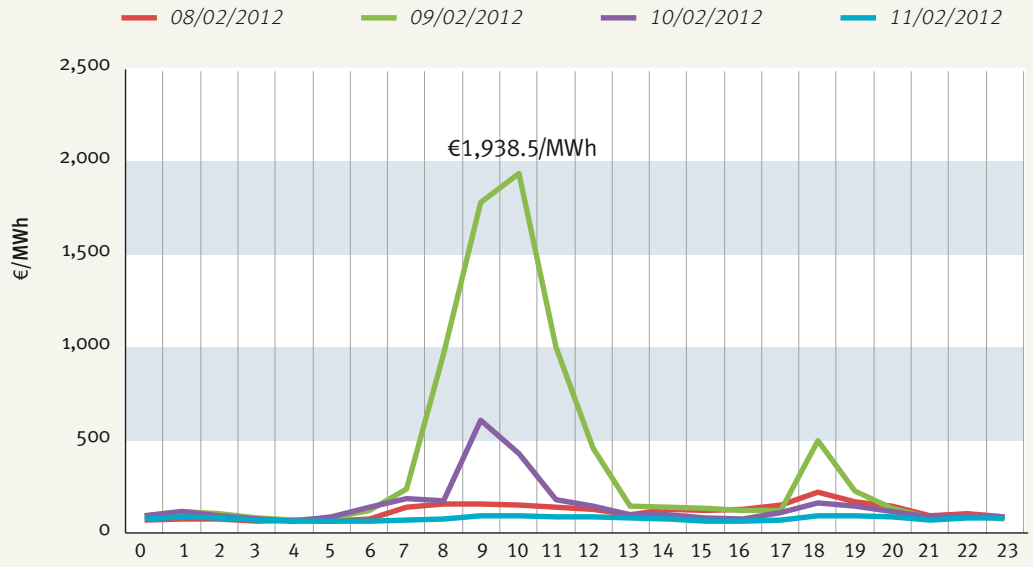
1 – Circular of 6 February 2012 sent out by the Italian Ministry of Industry to all capacity holders at input points on the Italian network.

French consumption is very sensitive to changes in temperature

The uniquely large scale of France's electric heat generation stock (in terms of basic and additional resources) within Europe means that French electricity consumption is highly thermosensitive. Thus, electricity consumption increases significantly during cold weather, a phenomenon which was intensified by the length of this cold spell. At 19 hours in the winter, each degree lost causes an increase of 2,300 MW in the power demand, compared to 2,100 MW in 2009. This additional power demand per degree is equivalent to activating two nuclear reactors.

In comparison, each degree lost causes an increase in consumption of around 5,000 MW in the European Union as a whole. France alone therefore accounts for nearly half of this increase. The French power system is therefore particularly sensitive to cold spells. ■

▲ Var Matin *newspaper. Announcement of peak demand expected on 6 February.* © RTE – P. Kruszewski



▸ *Hourly electricity prices from 8 to 11 February 2012.*
Source: EPEX SPOT
Analysis: CRE

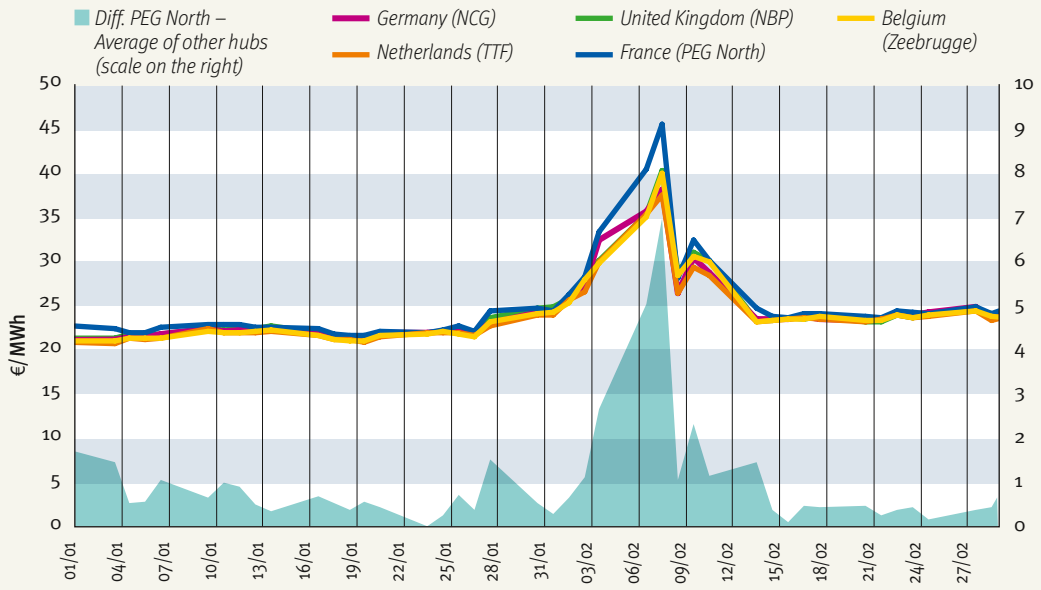
1.3. Price spikes occurred on the wholesale markets

This unusually high consumption created great tension between supply and demand, causing high prices on the European electricity and gas markets.

On the electricity market, in the week of 6 to 12 February 2012, France experienced considerably higher price levels than its neighbouring countries, as the average hourly price reached €172/MWh during this period. Hourly prices, set as part of the auction or fixing process carried out on D-1 on the French EPEX SPOT market, were particularly important for deliveries on 9 and 10 February 2012, triggering second auction procedures. Also known as Request for Quotes (RFQ), these procedures are followed if an excessive imbalance between buying and selling leads to disproportionate prices. In practice, they are automatically triggered when the hourly prices set by the initial fixing process exceed a certain threshold, which is currently set at €500/MWh. This procedure consists of asking market players to post new orders if they are able to do so, in order to reduce the tension between supply and demand on the spot market. On 9 February 2012, the price of electricity was fixed at €368/MWh in base load and €628/MWh in peak load, with the price for delivery at 10h reaching a maximum of €1,938.5/MWh. The next day, electricity reached €147/MWh in base load and €192/MWh in peak load.

On the wholesale gas market, the spot price at the PEG North was €40.5/MWh for delivery on 7 February and €45.7/MWh for delivery on 8 February, the highest levels on this marketplace since 2006. The PEG South and TIGF broadly followed the same pattern of change as the PEG North, maintaining relatively stable differences compared to the month of January. While price spikes were seen in the main European hubs, prices did not reach the levels recorded in France,

The price spikes in February 2012 prompted the CRE to launch an investigation as part of its mission to monitor the electricity, natural gas and CO_2 markets.



◂ *Differences in spot prices between France and the main European gas marketplaces.*
Source: Heren Analysis: CRE

except for the Punto di Scambio Virtuale (PSV) in Italy, where the spot price reached €65.0/MWh for delivery on 9 February. Thus, between 2 and 8 February, the difference between prices at the PEG North on the one hand, and the average price at the hubs in the Netherlands (TTF), Germany (NCG) and Belgium (Zeebrugge) on the other, went from an average of + €0.7/MWh to + €7.0/MWh. This increase in spot prices only spread to futures products to a very slight extent[2]. French futures prices were not disconnected from the adjacent markets.

2. THE CRE INVESTIGATED THE CAUSES OF THE PRICE SPIKES

The price spikes in February 2012 prompted the CRE to launch an investigation as part of its mission to monitor the electricity, natural gas and CO2 markets. The investigations enabled the CRE to analyse the consistency of market transactions with fundamentals, and spot any abuses of the market[3].

2 – M+1 prices (the futures product most heavily affected by the cold spell) remained below €25.5/MWh.
3 – The CRE's fifth report on the operation of the wholesale markets for electricity, CO_2 and natural gas was published in November 2012 (see Appendices p. 135).

What was the impact on consumers' bills?

The price spikes on the spot markets generally did not have a short-term effect on end consumers' bills. In fact, consumers generally have a supply contract where the price is either fixed or varies by prior agreement. The price risk is therefore borne by the supplier. In the long term, however, repeated price spikes could lead to changes in suppliers' offers.

Moreover, specifically with regard to gas, the CRE noted that as spot price spikes had only spread to futures products with shorter maturities to a very slight extent, the reference price used to calculate regulated gas sales tariffs was unaffected by this episode[1]. ■

▶ page 123

1 – When calculating the regulated sales tariff, the monthly average of the quarterly product price (Q+1 index at the TTF) is used as a reference price for the gas market (see http://www.cre.fr/marches/marche-de-detail/marche-du-gaz).

◂ *Repairing an overhead power line following bad weather.* *Intervention by an employee of the FIRE (Force d'Intervention Rapide Electricité).*

© ERDF – P. Robin

▸ *The CRE systematically analysed the behaviour and operational decisions of EDF and its trading subsidiary EDF Trading for the delivery days of 9 and 10 February 2012.* *Trading floor at the EDF Trading office in London.*

© Ph. Eranian.

2.1. The CRE's monitoring role is now part of a European framework

The law of 7 December 2006 entrusted the CRE with the mission of monitoring the wholesale gas and electricity markets. Article L.131-2 of the Energy Code states that *"the French Energy Regulatory Commission monitors electricity and natural gas transactions carried out between suppliers, traders and producers, transactions carried out on the organised markets as well as cross-border trades. It monitors the consistency of the offers [...] made by producers, traders and suppliers [...] with their economic and technical constraints"*.

The law of 22 October 2010 on banking and financial regulation extended the CRE's monitoring remit to include transactions by players on the electricity and gas market, and the CO_2 market: *"As part of its missions, the CRE monitors transactions between suppliers, traders and producers of electricity and natural gas in relation to greenhouse gas emission allowances [...], as well as the futures contracts and financial instruments which they underpin, in order to analyse the consistency of these transactions with the economic, technical and regulatory constraints placed on the activities of suppliers, traders and producers of electricity and natural gas"* (art L. 131-3 of the Energy Code).

The CRE's mission of monitoring the wholesale markets thus consists of ensuring that prices on the markets are consistent with the fundamentals, i.e. the technical and economic factors that influence supply and demand, such as fuel prices, availability of means of production and infrastructures. It is particularly committed to ensuring that no player abuses their position on the market to obtain abnormal prices, with regard to their costs in particular.

The CRE's monitoring mission now operates under the European Regulation on Wholesale Energy Markets Integrity and Transparency or REMIT[4] (see box p. 44). In force since 28 December 2011, REMIT establishes a regulatory framework that prohibits market manipulations and insider trading on the energy markets. The regulations

4 – See REMIT, regulation (EU) No. 1227/2011, published in the Official Journal of the European Union on 8 December 2011.

work in conjunction with financial regulations, which are under review, and require interactions with the carbon market to be included in the market monitoring process[5].

REMIT organises the supervision of the wholesale energy markets (financial and non-financial products relating to energy) at the European level, by assigning it to the Agency for the Cooperation of European Regulators (ACER), in cooperation with the national regulators. The roles are divided between them so that the national regulators cooperate with the ACER with the aim of understanding the national markets and ensuring the integrity of the markets[6]. Market players are listed by the national regulators in a national register. The data is then sent to ACER by the national regulators. The ACER is in charge of gathering data on transactions and fundamentals from the market players[7]. To do this, the ACER can use a range of tools, such as central reference documents. In order to avoid double reporting, the data can then be shared with the national regulators, financial regulators and competition authorities. Strict confidentiality and data protection clauses are applicable in this area.

The content and scope of the data to be provided by the market players will be defined by executive measures taken by the European Commission. The adoption of these measures, scheduled for 2013, will mark the start of the operational implementation of the scheme planned by REMIT. The requirement for market players to register will come into force three months after the executive acts have been adopted, and the data gathering requirement will come into force six months afterwards.

If it suspects that a market manipulation or insider trading is taking place, the ACER can ask one or more national regulators to carry out an investigation, which the latter will be obliged to do. Where applicable, the national regulators must also penalise the players concerned, in an effective, proportionate and dissuasive way[8]. The CRE has been given the necessary authority to fulfil these new missions.

5 – See REMIT articles 1 and 10.3.
6 – See REMIT articles 7.1 and 7.2.
7 – See REMIT articles 8 and 10.

8 – See REMIT article 18.

▸ *In France, as well as national dispatching, seven regional dispatching centres monitor and run the high and very high tension network to ensure a constant balance between supply and demand.*
Regional dispatching for the Normandy-Paris region in Saint-Quentin-en-Yvelines (78).
© RTE – V. Colombel

The CRE's involvement in setting up REMIT

Since 28 December 2011, the CRE's wholesale energy market monitoring mission has been governed by REMIT, the European regulations on transparency and integrity in the wholesale energy markets (ruling (EU) No. 1227/2011).

The CRE makes a significant contribution towards implementing REMIT on the European level, in particular through its vice-presidency of the ACER and CEER working groups on market integrity and transparency. It also plays an active role in the various sub-working groups concerning monitoring principles, market governance and technical IT aspects. It attends meetings with experts attached to each of these working groups, which are made up of ACER representatives, energy market players (producers, traders and suppliers) and national regulators. Occasional meetings are also organised with various members of the European Commission (markets directorate and energy directorate) in order to discuss changes in energy market regulation.

The CRE helped draft the first two editions of the guidelines published by the ACER in December 2011 and September 2012, on the concepts of insider information and market manipulation. These provided definitions of wholesale energy products and market players, and detailed the exemptions from the prohibition on insider trading.

The CRE contributed to the ACER's various public consultations about the format of the market players' register for example, which was made public by the ACER on 26 June 2012. During summer 2012, the CRE also contributed to evaluating part of the responses to the ACER's public consultation about data collection, detailing which fundamental data and essential information should be shared. it then took part in drafting the recommendations on data collection which were passed on to the European Commission by the ACER, and made public on 23 October 2012. ■

▸ page **28**

2.2. The CRE's investigations follow formal procedures

During its investigations, the CRE may conduct hearings with certain market players. In the case of the price spikes in February 2012, it contacted EDF, the dominant incumbent player, as well as EPEX SPOT, the marketplace where these high prices were reached, to ask for an explanation of how this was able to happen. ▸ page **109**

For the electricity market, the CRE started by analysing the supply and demand fundamentals to which it had access, like data on consumption forecasts and the availability of the power plants that the hourly production margins resulted from. Market prices for electricity, which are very sensitive to downward variations in production margins, were analysed with regard to these margins. The CRE's departments also took account of flows at interconnections and interventions by players on the market.

The CRE systematically analysed the behaviour and operational decisions of EDF and its trading subsidiary EDF Trading for the delivery days of 9 and 10 February 2012. Information provided by

the incumbent operator was used to calculate the residual capacity, i.e. volumes available to the EDF for sale on the market, which was nil for several hours during the tensest period. This situation was consistent with the state of the electric system, which was under high tension at the time. Finally, the publication of forecast availability data and unplanned outages complied with the transparency processes implemented.

The CRE's departments also approached the EPEX SPOT marketplace to obtain data on how the auctions of 8 and 9 February 2012 were conducted. The CRE was able to hear telephone recordings of conversations between EPEX SPOT and certain members of the market during the second auction procedures, and receive information on changes to orders made between the first and second auctions.

In gas, the CRE also conducted an investigation into the price levels observed at the PEGs, in particular the difference between French prices and prices at the adjacent hubs. The CRE first analysed changes in consumption in France, flows at the borders and within its transmission network, and availability of gas infrastructures.

This analysis was extended to the European level based on public information available on neighbouring countries' transparency platforms (websites of the stock exchanges and infrastructure operators). As well as these background factors, the CRE also analysed balancing and interventions by French market players.

It noted that the import capacity available at the main land input points on the French network (especially at Obergailbach and Taisnières H) had not been fully utilised during the cold spell, despite the high price differential between the PEG North and neighbouring hubs ▶ page 81.

During its investigations, the CRE may conduct hearings with certain market players.

20%

Between 1 and 7 February, 20% of subscribed input capacity (2.2 TWh) went unused (the equivalent of 9% of French consumption during this period).

Thus, on 1 and 7 February, 20% of subscribed input capacity (2.2 TWh) went unused (the equivalent of 9% of French consumption during this period). Since a more effective use of these capacities would have reduced price differences between the French market and neighbouring markets, the CRE questioned the main players who did not make full use of their capacities. These three players were also questioned about their market position. The players' responses were communicated to the CRE, in late April for one of them, and mid/late May for the other two.

The conclusions of these investigations were made public in two deliberations, dated 10 May 2012 for electricity[9] and 26 June 2012 for gas[10]. These deliberations provide a reminder of how the procedure is organised, detail the results of the analyses, and formulate recommendations where necessary *(see box opposite)*.

9 – http://www.cre.fr/documents/deliberations/communication/pics-de-prix-de-l-electricite-des-9-et-10-fevrier-2012
10 – http://www.cre.fr/documents/deliberations/communication/vague-de-froid-fevrier-2012

EPEX SPOT: recommendations on an operational level

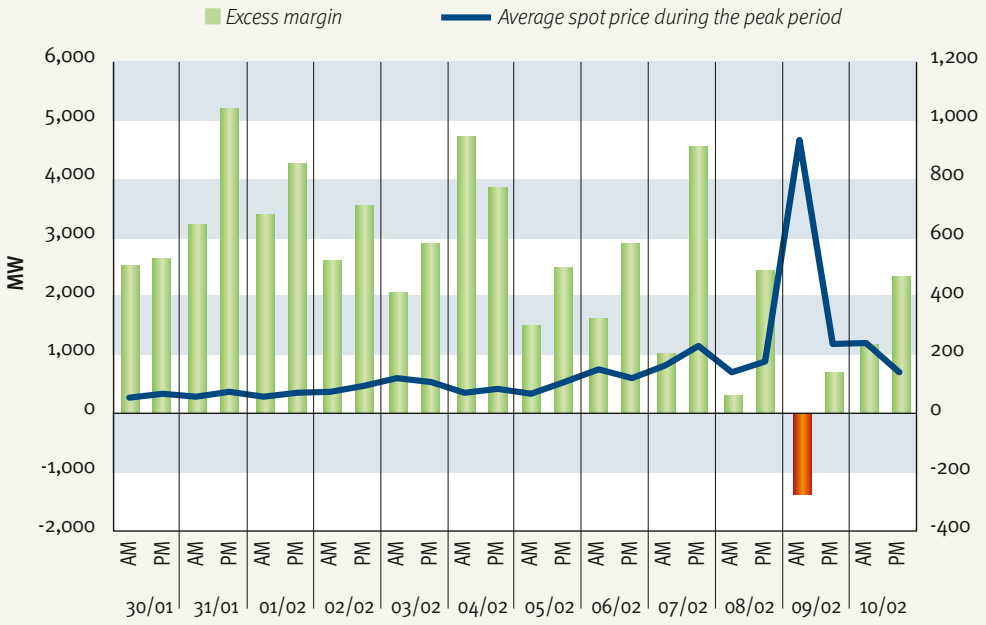
The CRE took an interest in price formation on the EPEX SPOT day-ahead market during the exceptional weather in February 2012. Its work led it to make the observation that, for deliveries on 9 and 10 February 2012, some prices achieved in the second auctions were higher than the initial prices. For the auction that took place on 8 February 2012 in particular, the average (base) price obtained before the second auction took place was €350.23/MWh. The final price at the end of the second auction was €367.60/MWh, slightly higher than the initial price. The CRE nonetheless noted that during the hours when prices were very high, more significant discrepancies appeared between the initial results and the final results of the second auction.

By listening to telephone recordings of conversations between EPEX SPOT and some of its members during the lapse of time between the first and second closing of the order books, the CRE was able to see that some of them showed a lack of knowledge of the conditions for triggering and conducting the second auction procedure. After more in-depth analysis, it confirmed that these price spikes were caused by the individual behaviour of certain players: an examination of changes made to the various order books during the second EPEX SPOT auction in fact showed that for several players, these changes could in theory have had an upward impact on the balance price. Yet the stock exchange operating rules on second fixing state that only changes to orders which have the effect of reducing the imbalance between supply and demand are allowed.

The CRE therefore recommended the EPEX SPOT, in consultation with its members, examine the measures needed to:

- *provide all of its members with the sufficient level of transparency regarding these observations;*
- *improve all of its members' understanding of the conditions for triggering and conducting the second fixing;*
- *improve, if necessary, the second fixing procedure;*
- *set up, if required, operational safeguards.*

EPEX SPOT responded to the CRE's recommendations in a communication sent to all its members on 5 July 2012. This communication reminded them of the principles of the Request for Quotes procedure and detailed the results of the stock exchange's analyses of five second auction episodes, in particular the episode of 9 February for the French market. EPEX SPOT clarified its market rules on 16 October 2012 and is working on establishing operational limits. Finally, EPEX SPOT should send letters to the members who are deemed to have broken the rules and should also continue to closely monitor players' behaviour during second auctions. ■



◂ *System margin and average hourly prices at morning and evening peaks*

Source: RTE, EPEX SPOT - Analyse : CRE

3. THIS EPISODE DEMONSTRATES THE NEED FOR A EUROPEAN ENERGY MARKET

Year on year, peak electricity consumption is increasing regularly and more quickly than total consumption. Gas consumption is also experiencing peaks due to the residential sector, as well as combined cycle gas turbines. We therefore need to learn the lessons of the exceptional situation of winter 2012, which put the flexibility of the electricity and gas networks and the responsiveness of the energy markets to the test. ▶ page 58

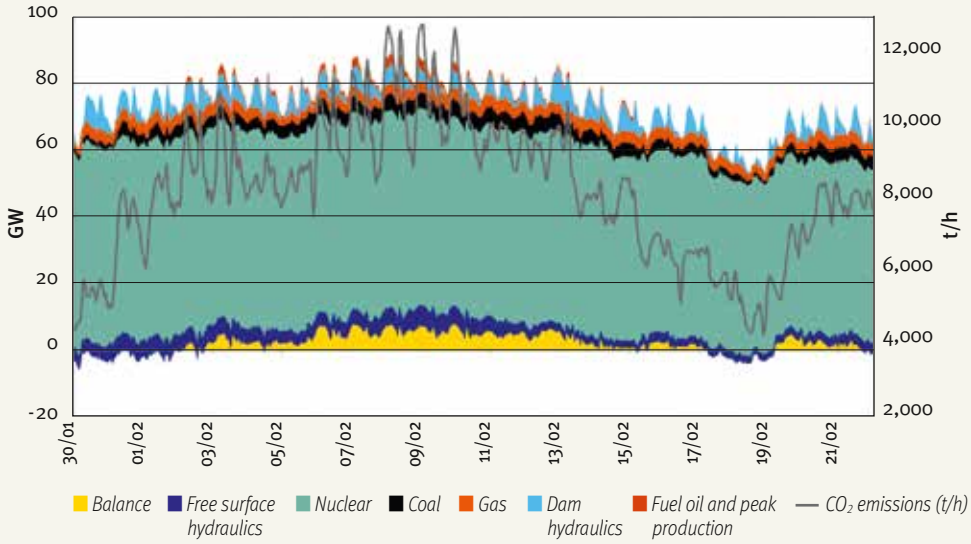
3.1. A constant balance must be maintained between supply and demand

On the electricity market, the CRE concluded in its deliberation of 10 May 2012 that the tension between supply and demand explained the formation of high prices, in particular for the day of 9 February. The balance between supply and demand was maintained during the days of 9 and 10 February 2012 by making full use of the power plants and most interconnections, with the exception of interconnections with Italy.

The consumption and power plant availability forecasts, as well as the revisions made to them, may have contributed to the perception of high tension in the power system and therefore high anticipated prices, for 9 February in particular.

This analysis is supported by the transmission network operator's estimates. In fact, every day the RTE evaluates the margins required at morning and evening peak times to ensure network security beyond an acceptable risk threshold. Throughout the cold spell, the margin required by RTE was lower than the available margin. However, in the evening of 8 February, i.e. after the auction for the day of 9 February, RTA estimated that the margin required during the morning peak was 4 GW, and the margin available was just 2.6 GW. Such a configuration is rare and points to significant tension in the system.

There was very high tension between supply and demand during the cold spell. During this episode, electricity supply security was guaranteed by extensive use of imports and the markets. Certain suppliers made considerable use of the electricity market to meet customer demand, for future products (monthly and weekly) as well as daily and intraday products.



◂ *Use of various means of production of over 20 MW in France and CO_2 emissions, from 30/01/2012 to 22/02/2012.*

Source: RTE - Analysis: CRE

Likewise, for the gas market, the CRE concluded that the price spikes could be explained by the tension between supply and demand.

On the gas market, France, which is not a producing country, has to deal with consumption increases by importing gas over land and sea, and by withdrawing gas from underground storage. During the cold spell, the balance between supply and demand was maintained by extensive use of stored gas, the main source of flexibility in the French system, and by land imports. LNG imports, on the other hand, were at a relatively low level compared to the same period in 2011. Supply pressures were exacerbated by restrictions upstream of the French network, linked in particular to reductions in Russian gas deliveries to Europe, as well as high levels of exports to Spain and Italy, the latter being associated with the Italian government's decision to require transporters to maximise their imports.

▶ page 80

Recourse to the wholesale market also increased during the cold spell, which helped balance suppliers' portfolios and thus contributed to securing their customers' supply. Exchanges at the PEGs rose from an average of 1.7 TWh/day exchanged in January to 2.3 TWh/day between 6 and 10 February. The volumes exchanged on the French intermediary market (brokers and stock exchange), for the day-ahead and intraday segments and for deliveries between 6 and 10 February, reached an average of 467 GWh/day, i.e. an increase of 47% compared to the January average.

Moreover, each of the players questioned provided technical and economic justifications for under-using the interconnections. The market abuse theory was rejected on the basis of information provided to the CRE at that time.

3.2. Electric interconnections play a key role

To deal with the consumption peak that culminated at 102.1 GW, at 19:01 on 8 February, the French system had to rely on means of production and load management mechanisms based in mainland France. Capacity at cross-border exchanges also played a key role in this episode, the likes of which had never been seen before.

France's maximum installed capacity was 123.1 GW on 1 January 2012, considerably

◂ *At the Belgian and German borders, electricity exchanges take place on a daily basis through market coupling.*
Electrical interconnection connecting the high voltage power station at Moulaine (Meurthe-et-Moselle) to the one in Aubange (Belgian Ardennes). In the photo: a circuit-breaker.
© RTE – S. Harper

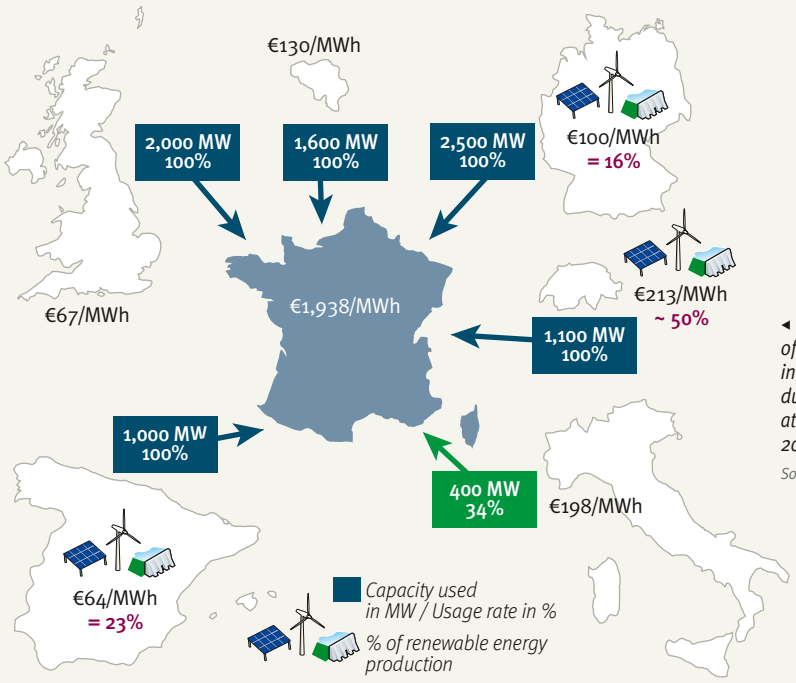
higher than any consumption peaks that may arise. However, this capacity is never totally available. In fact, 34.3 GW were derived from "unavoidable" capacities on the same date: these are renewables whose production depends on hydrological or meteorological conditions. Another part of the installed capacity is dedicated to the balancing reserves. Finally, we also need to be able to deal with the other means of production becoming unavailable. The electrical interconnections therefore turned out to be essential in this context, and their generally effective use by market players made it possible to guarantee the supply-demand balance.

Nonetheless, the imperfect use of certain interconnections in this relatively tense situation for the system had impacts in terms of price formation and provided a reminder of how important it is to establish the target models promoted by the CRE.

At the Belgian and German borders, the exchanges take place on a daily basis through market coupling: an algorithm compares the electricity supply and demand in the coupled countries for the next day, and automatically chooses the suppliers, i.e. the means of production, according to a global economic optimisation rule. This mechanism guarantees efficient use of these interconnections to their full extent. This results in good price convergence (French and German prices were equal around 65% of the time in 2012, and French and Belgian prices 85% of the time). The existence of flexible mechanisms to access the interconnections enables the players to manage many unforeseen events, such as those linked to intermittent renewable energy production, which is hard to predict on a daily basis, and to obtain a supply at the best price. ▸ page 58 ▸ page 106

The generally effective use of interconnections by market players made it possible to guarantee the supply-demand balance.

At the other borders, less optimal mechanisms nonetheless enabled players to take positions which saturated interconnection capacities for



▸ *Cattenom nuclear power station on 9 February 2012.*

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◂ *Wholesale price of electricity and interconnection usage during the price spike at 10:00 on 9 February 2012.*

Source: CRE

import, except for the Italian border (see map above). The lack of an intraday auction caused a problem, as it prevented players from strengthening their positions on the import market, despite higher prices in France.

The implementation of an intraday market at the interconnections between France and Italy in April 2012 was therefore an absolute necessity and had been requested several times by the CRE as part of the regional initiative. Although this mechanism is still far from perfect, it now gives market players an opportunity to readjust their import and export forecasts (as could have been the case in February 2012), especially in the context of Italy's high photovoltaic production. In order to move even closer to the European target models, the CRE asked for improvements to be presented to it in the first half of 2013. ▸ page **60**

Moreover, the daily auctions led to low use of imports at the Italian border, around 34% of capacity, and use of exports at the Swiss border, which was finally corrected by the intraday auction. This accentuated the effect of the consumption peak and contributed to the formation of a very high price. For the Italian border, market coupling would have prevented player nominations which run counter to the price differential and result in an importing but not saturated balance (import capacity is not 100% used). For the Swiss border, long-term electricity export contracts go a long way towards explaining a balance which runs counter to the price differential at the end of the daily auctions. The CRE is working with its counterparts in these two areas. As well as putting mechanisms in place to enable more effective use of existing capacities, supply security also requires the construction of new interconnections in order to guarantee the supply-demand balance during exceptional episodes. Developing these mechanisms will make it possible to pool the various European countries' means of production to deal with unforeseen events. The CRE is very committed to dealing with these issues by approving the annual investment programme, the ten-year investment scheme and the European ten-year investment plan, and introducing incentive-based tariff regulation. ▸ page **63**

The CRE is also working actively to develop the means of making electricity demand more flexible, especially during these periods of tension. These means include load management,

Flow-based market coupling: allocating capacity to accurately reflect need

An agreement was signed by governments, regulators, system operators and stakeholders in June 2007 to introduce market coupling combined with a calculation of cross-border trading capacities based on flows in the Centre-West of Europe (France, Benelux and Germany). This European pilot project entered the experimental phase on a wider scale in February 2013.

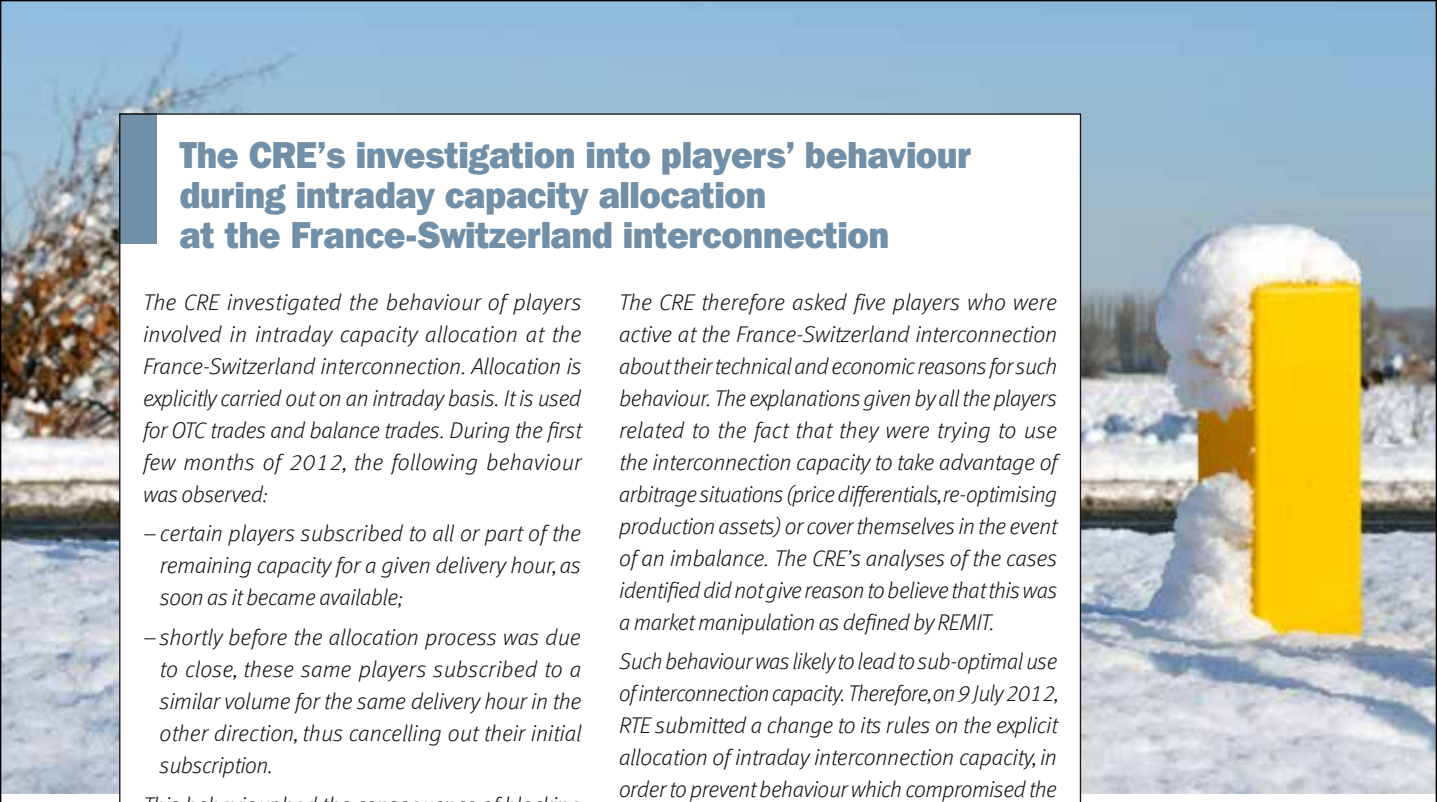
As trades are interdependent, a surplus of electricity imports from Belgium limits imports from Germany, for example. In fact, on the one hand, trading creates physical flows on multiple electricity lines, and on the other, the physical flows created by different trades can run along the same line.

In its current capacity calculations, the RTE sets the maximum limits for trades across two borders, without knowing which trades will have the most economic value and therefore be preferred by the players involved. In this respect, the CRE observed that during 37% of hours between April and September 2011, 1,000 MW of capacity at the France-Belgium interconnection went unused, while the France-Germany border was saturated. Since the trades at this border were worth an average of €5/MWh during the same period, this represented a considerable economic loss for France.

The flow-based method makes it possible to take advantage of the interdependence between trades at multiple borders by dedicating physical capacity to trades with higher economic value (i.e. where the price differential is greater). When accepting offers, consideration is given to their impact on the supply lines as well as their price and volume. Based on early simulations, we can predict an estimated annual economic gain of €50 million, thanks to the absence of congestion on the network for 90% of the time, compared with two-thirds of the time at the moment.

Furthermore, unlike the current method, the flow-based method makes it possible to maximise import capacities by matching commercial capacities and admissible physical trades. Maximum use of the network's physical capacities therefore has major benefits in terms of supply security. In fact, the RTE's simulations show that during cold spells, commercial import capacities may have to be saturated in order to maintain the supply-demand balance. Through closer coordination and more effective use of the network, the flow-based method should increase trading capacities and make it easier to get through these peaks. As an illustration, during the consumption peak in February 2012, simulations show that the flow-based method would have made it possible to import 40% more electricity from Belgium and Germany, thus reducing prices in France and achieving more comfortable security margins (in terms of production, load management and interconnection capacity) in the electrical system.

The flow-based method is promising in terms of economics and network security. The CRE is therefore counting on implementing it for winter 2013-2014. However it is a complex method, especially for market players: the CRE remains vigilant about transparency and technical configuration issues, as well as ensuring that the experiment is conducted successfully, which should enable us to become familiar with this system and make the most effective use of it. ■



The CRE's investigation into players' behaviour during intraday capacity allocation at the France-Switzerland interconnection

The CRE investigated the behaviour of players involved in intraday capacity allocation at the France-Switzerland interconnection. Allocation is explicitly carried out on an intraday basis. It is used for OTC trades and balance trades. During the first few months of 2012, the following behaviour was observed:

- *certain players subscribed to all or part of the remaining capacity for a given delivery hour, as soon as it became available;*
- *shortly before the allocation process was due to close, these same players subscribed to a similar volume for the same delivery hour in the other direction, thus cancelling out their initial subscription.*

This behaviour had the consequence of blocking interconnection capacities for the subscribed volume in one direction, then in the other, to the detriment of other players who wanted to acquire interconnection capacities, and preventing the interconnection from being used effectively. This observation raised questions about the individual behaviour of the players involved.

The CRE therefore asked five players who were active at the France-Switzerland interconnection about their technical and economic reasons for such behaviour. The explanations given by all the players related to the fact that they were trying to use the interconnection capacity to take advantage of arbitrage situations (price differentials, re-optimising production assets) or cover themselves in the event of an imbalance. The CRE's analyses of the cases identified did not give reason to believe that this was a market manipulation as defined by REMIT.

Such behaviour was likely to lead to sub-optimal use of interconnection capacity. Therefore, on 9 July 2012, RTE submitted a change to its rules on the explicit allocation of intraday interconnection capacity, in order to prevent behaviour which compromised the effective use of interconnection capacities (gaming). The CRE responded favourably in its deliberation of 19 July 2012, and this capacity is now being used more effectively. ■

whereby a player voluntarily reduces their consumption after making a demand of the power supply ▶ page 114. These are an additional factor that will help match supply and demand, in the long term and the short term alike.

Finally, the CRE contributed[11] to introducing the capacity requirement mechanism set out by the NOME law. The aim of this market mechanism will be to ensure physical balance and supply security in France, in particular by encouraging demand management. The CRE, which will be called upon to play a key role in the scheme, will play an active role in the RTE's consultation aimed at drawing up its operating rules.

11 – Deliberation of 29 March 2012 issuing an opinion on the draft decree to introduce a capacity mechanism

3.3. Gas infrastructures were also in demand

The supply context in Europe weighed heavily on the supply-demand balance

The cold spell in February 2012 affected all the countries in Europe. Despite a 20% to 30% rise in Russian production, Gazprom had to reduce its deliveries to certain European Union countries, because of severe weather conditions in Russia and Eastern Europe. The European Commission indicated on 3 February that deliveries to Italy, Austria, Greece and the central and Eastern European countries amongst others had been reduced by around 10% on average, and in certain cases up to 30%. On 6 February, Italy adopted an emergency plan which included activating fuel oil-powered electricity plants, reducing supply to certain customers and maximising

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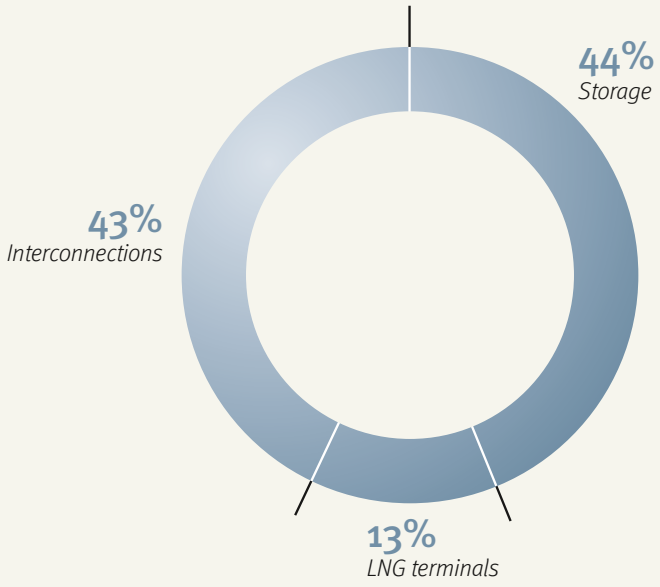


◂ *Supply in the GRTgaz zones on 8 February 2012.*
In the context of the country's low LNG supply, and a sharp increase in exports to Spain and Italy, stored gas helped meet demand to a large extent.

Source: GRTgaz ; analysis: CRE

gas imports to Italy. In Germany, transmission system operators suspended output capacity to the French market, in the light of high national demand for gas, especially for electricity generation.

Moreover, the sharp rise in the demand for gas in Asia, driven mainly by high levels of imports to Japan following the Fukushima catastrophe, led to much higher gas price levels in Asia than in Europe. This price differential led to many cargos of liquefied natural gas (LNG) being diverted towards the Asian market, to the detriment of the European LNG terminals. Thus, LNG imports in France accounted for 411 GWh/day on average during the period from 6 to 10 February, i.e. 29% less than the same period in the previous year. ▶ page 80

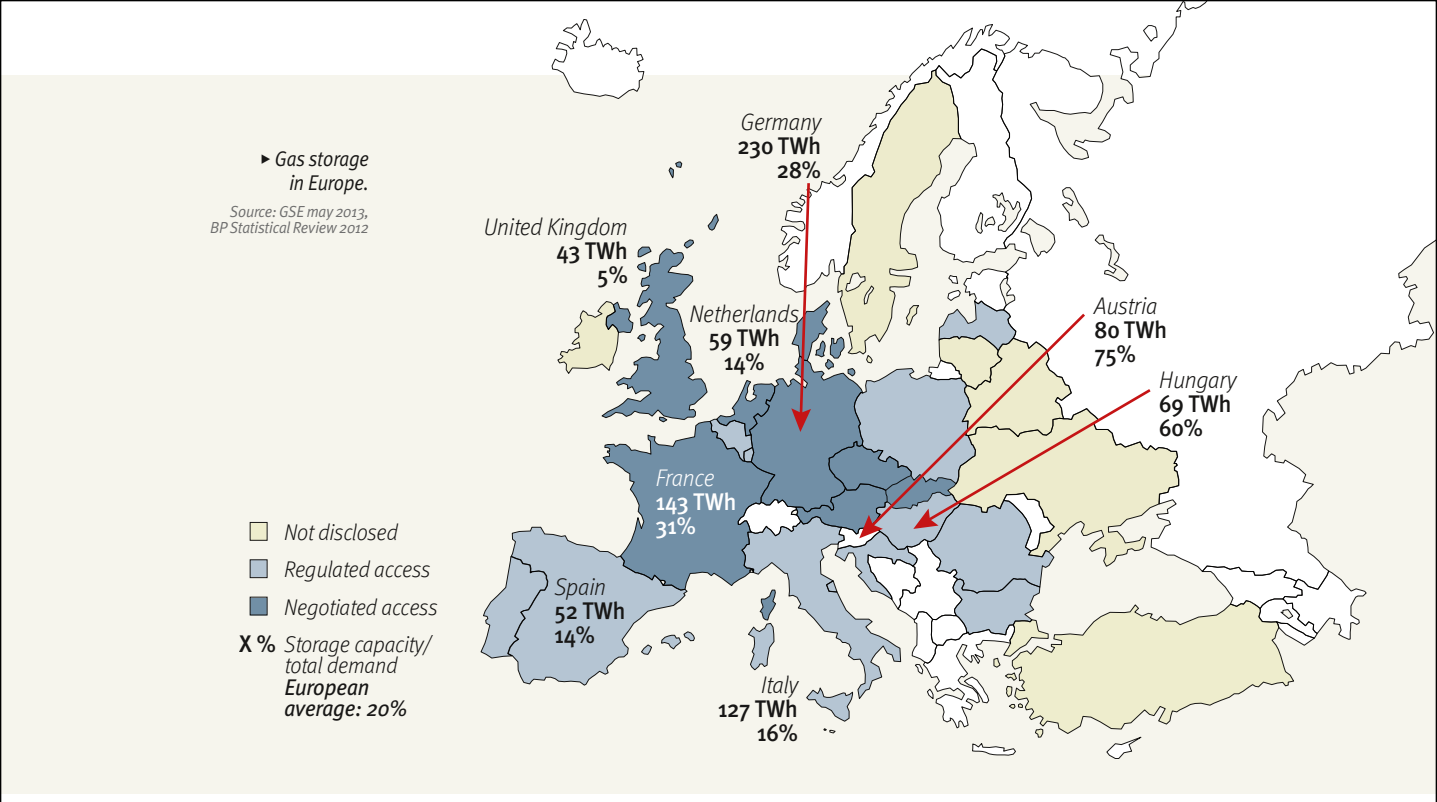
In this European context, France, which is structurally a gas-importing country, had to deal with a very tense physical balance during this period. It had to make use of all flexible resources available to meet the high demand caused by the rise in national consumption and a significant increase in exports to Spain and Italy via Switzerland. Thus, exports rose by 50% compared to January 2012, reaching 348 GWh/day.

Gas storage provided enough additional gas to meet demand

In the context of the country's low LNG supply, and a sharp increase in exports to Spain and Italy, stored gas helped meet demand to a large extent. It accounted for 54% of consumption on the GRTgaz and TIFG networks between 1 and 12 February 2012, providing 1.9 TWh/day on average, versus 0.7 TWh/day during the month of January, for a total of 23 TWh withdrawn over that period.

While stored gas volumes in France were at a slightly lower level than in previous years at the start of winter 2011-2012, at 96 TWh versus 97 TWh, they were used extensively to deal with the increase in consumption, as they are the main source of flexibility in the gas system in France.

Stored gas was used extensively in order to deal with the increase in consumption.



▸ *Gas storage in Europe.*

Source: GSE may 2013, BP Statistical Review 2012

Alongside underground storage, imports from land interconnections also increased sharply. Thus, between 6 and 10 February, land imports rose to 1.6 TWh/day, an increase of 13% compared to January 2012.

▾ *Usage rate for input points on the GRTgaz network on 8 February 2012.*

Source: GRTgaz /Analysis: CRE

GWh/day	Taisnières H	Dunkirk	Obergailbach	Fos terminals	Montoir
Available technical capacity	570	619	648	409	399
Physical flows at inputs in France	483	604	460	328	130
Usage rate	85%	98%	71%	80%	30%

Areas for improvement and CRE recommendations

In its deliberation of 26 June 2012, the CRE identified some areas for improvement and formulated recommendations on how to improve the operation of the gas market.

Although prices increased across all the European hubs during the cold spell, France experienced considerable price differentials with some of its neighbouring markets. However, an analysis of flows in the gas system also showed that during the period in question, input capacities to France from Belgium and Germany remained partly unused, and that transit to Italy and Spain stayed at a high level.

The investigation conducted by the CRE shed light on various technical and economic constraints, such as the absence of daily reference prices in Spain and the suspension of output capacities from Germany, which influenced players' behaviour and modified their response to the price signals given out by the French marketplaces.

In future, some of these constraints could be alleviated thanks to the work being done on the organisation of the European gas market

Dominique Maillard,

President of the Board of Directors at the RTE

The RTE's mission is to operate, maintain and develop the French electricity transmission network. This public service company was mobilised during the cold spell in early 2012 to ensure supply security throughout the country. Dominique Maillard, President of the Board of Directors, gives his assessment of this event, during which all available levers had to be activated, on French territory and at the interconnections, to guarantee the proper operation and security of the electrical system.

How did the European network deal with the consumption peak caused by the cold spell in February?

The Europe of electricity transmission is above all a Europe of solidarity between territories. This exceptional cold spell once more demonstrated this. The capacities to import energy to our country were mobilised extensively, since our consumption increases more than in other European countries when temperatures are cold.

Of course, the RTE made use of all the other levers available in France to ensure supply security, including appeals to the public to use power wisely. We were able to cope with this exceptional situation thanks to a close-knit European network combined with the mobilisation of all players.

What is CORESO's role?

Coreso helps transmission system operators to cooperate by providing them with analyses to help them take effective action if there is a risk of serious disruption in Western Europe. Its action was essential during this cold spell. The considerable energy flows needed to meet demand were able to take place without compromising the security of the Western European network, largely thanks to Coreso, who helped ensure optimal infrastructure use throughout the affected zone.

How did the German situation play out?

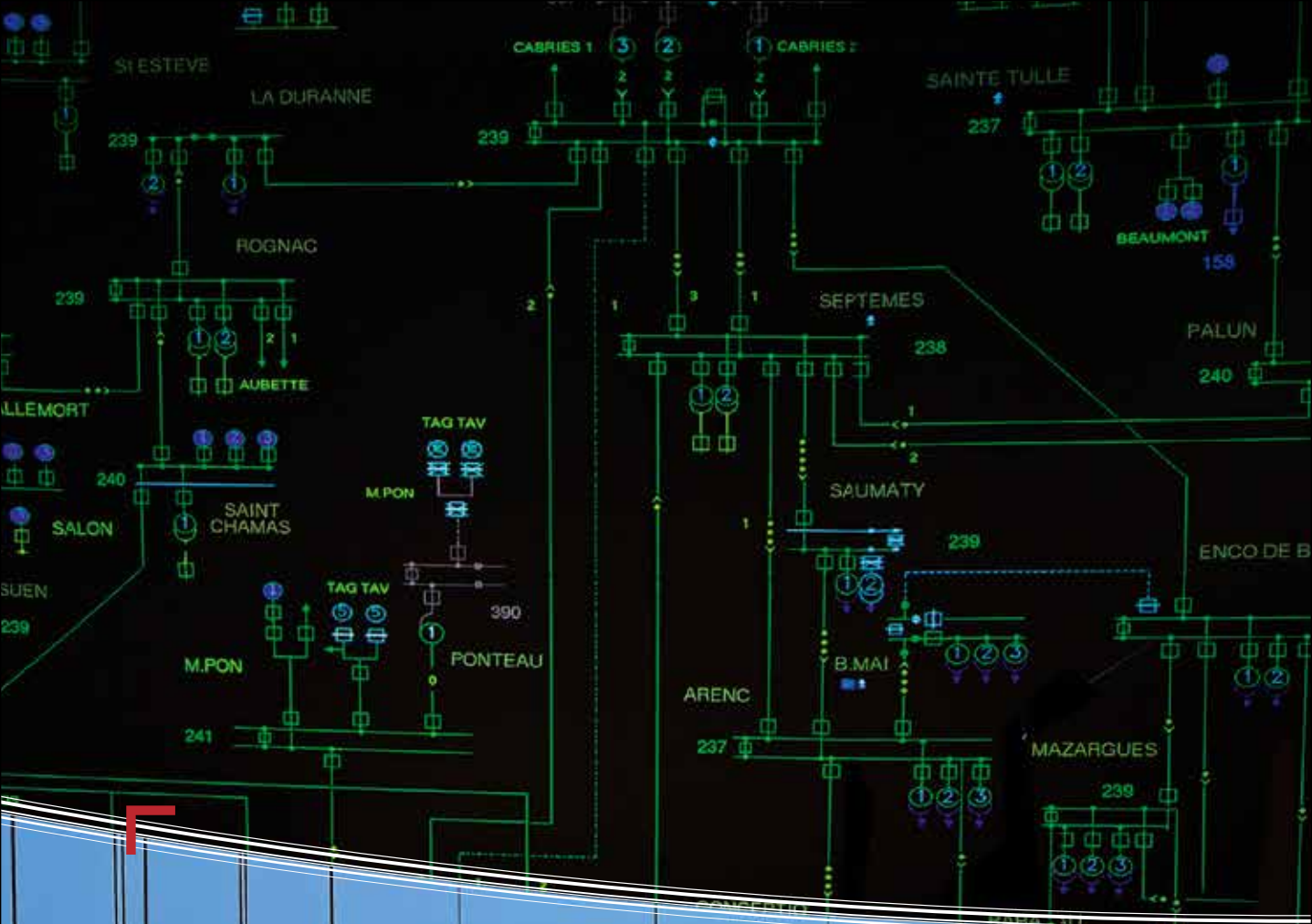
The German power plants helped to supply France. Our neighbours' thermal power stations were used extensively, since wind turbine production across the Rhine was low, and several nuclear power stations were having outages. The price differential, which was favourable to exports from German producers to our country, reflected the less tense situation on the German market. However, we should note that the price difference had been artificially increased by a dysfunction in the European market, which will need to be resolved.

Are the consumption records destined to be broken every year? Is this situation sustainable in the long term? Is there a risk of blackouts?

Consumption records are linked to weather conditions, therefore they are unpredictable by definition. As a general trend, despite our efforts to manage demand, winters will become increasingly difficult, as our lifestyles are making our electrical system more sensitive to these situations. We therefore need to consider combining several courses of action: peak demand management, implementation of the capacity mechanism set out in the Energy Code, and strengthening the national network and our electricity interconnections. This need will become even more pressing with the energy transition, as the location of production zones will change, on a French and European scale, so it will be necessary to adapt the existing network.. ■

and interconnection management. The network codes that are currently being prepared are based on a European target model, according to which the internal market must evolve towards a set of "input-output" market zones with virtual exchange points. The aim is to create liquid, interconnected marketplaces in order to optimise the allocation of gas flows between the different markets. In such a system, price signals must direct gas towards markets where the supply/demand balance is at its most tense. The European network code on capacity allocation and the guidelines on congestion management represent an important step towards this model, by introducing transparent, non-discriminatory rules on access to interconnections, part of which must be dedicated to the short term. These rules must promote optimal use of cross-border interconnection capacities and thus enable market players to respond to price differentials more effectively. With regard to this, in its deliberation of 26 June 2012, the CRE emphasised that the implementation of the European network codes would provide an appropriate response to some of the dysfunctions which occurred during the cold spell. ► page 85

Finally, in tense periods, coordination between Member States must be reinforced in order to prevent unilateral decisions from disrupting flows to the point of compromising supply security in neighbouring countries. Only then will the internal market be able to deliver all its benefits, especially in terms of solidarity. ■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ELECTRICITY NETWORKS AND TERRITORIES

The evolution of the European energy mix means the electricity network needs to be adapted. The territories are concerned by this on all scales. On a local level, experiments with new generation networks called smart grids are promoting the inclusion of renewables and energy management in particular. Strengthening the public transmission network on the regional and national levels will allow us to accommodate new production methods. Finally, the construction of a continental network will improve supply security in Europe and ensure optimal use of the energy produced at all times.

2014

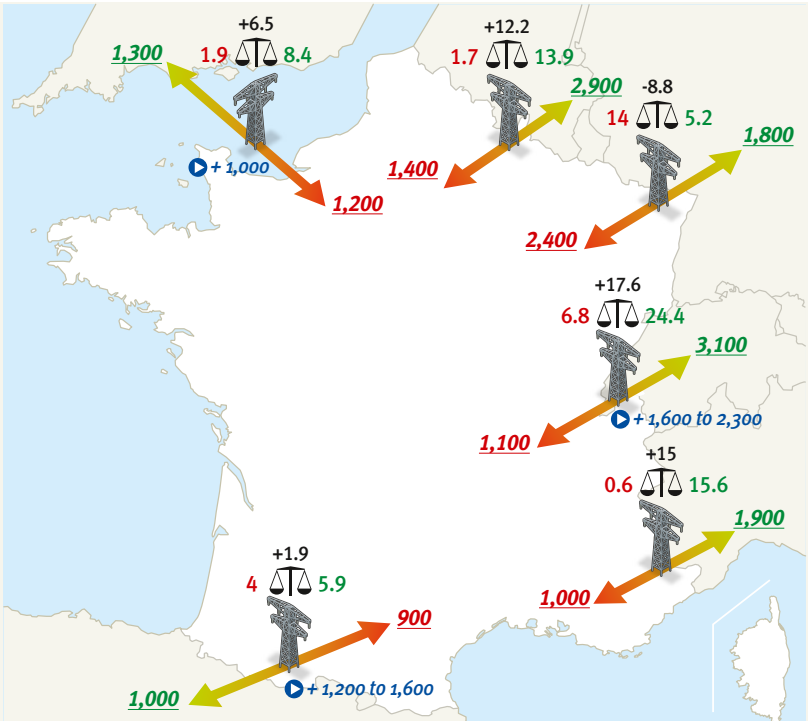
The aim of the European Union is to finish building the internal energy market by 2014 in order to enable the free circulation of gas and electricity.

KEYWORDS

Network modernisation

European network codes

Local authorities



◂ *French cross-border electricity interconnections.*
In 2012, France had a net export balance of 44.4 TWh.

Average trading capacities in 2012 (in MW)
Exports: 12,000
Imports: 8,000
Potential reinforcements by 2020 (in MW)

France's total for 2012 (in TWh)
Exports: 73.4
Imports: 29
Balance: +44.4

1. THE EUROPE OF ENERGY RELIES ON SOLIDARITY AMONG ITS ELECTRICITY NETWORKS

Cross-border electricity trades between countries are limited by the networks' physical capacities. In fact, the interconnections create bottlenecks. Methods for allocating capacities to manage congestion are therefore necessary. In this context, the third energy package makes provision for drafting codes and an investment plan, which form the basis for the construction of the Europe of energy.
During 2012, these founding documents provided a basis for work on the effectiveness of border trades, harmonisation of system operators' practices, and key investments in the European network, in which the CRE took part.

The aim of the target models is to define a capacity allocation mechanism which is harmonised at the European level.

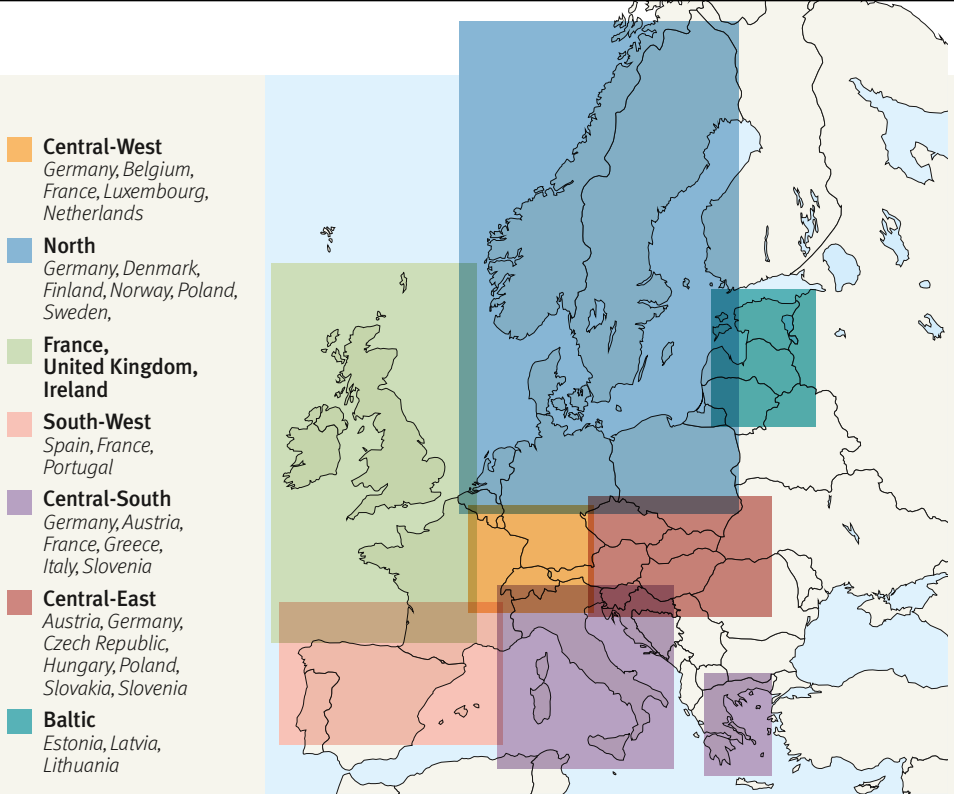
1.1. European cooperation enables a more effective use of interconnections

Regional initiatives

The Europe of energy is divided into seven main territories, the regional initiatives, within which the regulators, the Member States, Commission and interested parties in the bordering countries take concrete, practical action.

Thanks to these regional initiatives, we can anticipate the introduction of the target models for congestion management, as set out in the third energy package, by 2014. Implementation takes the form of interregional roadmaps that set ambitious objectives for each region. The CRE takes part in four of the seven regional initiatives defined by the European Commission: Centre West (Germany, Belgium, France, Luxembourg, the Netherlands), Centre South (Germany, Austria, France, Greece, Italy and Slovenia), South-West (Spain, France, Portugal) and France - United Kingdom - Ireland.

Interconnection capacities may be assigned to different timeframes, and under different terms. The aim of the target models is to define the most relevant allocation mechanism for a



◂ *The regional initiatives for electricity.* *The CRE takes part in four of the seven regional initiatives defined by the European Commission: Central West, Central South, South-West and France - United Kingdom - Ireland.*

given timeframe, harmonised on a European level, with a view to using the interconnection in a competitive and effective way. In this regard, the intraday timeframe should enable players to adjust the positions they took on the previous day for daily trades, according to unforeseen events that may arise as the date approaches in real time.

On the border between France and Italy, significant progress has been made with the introduction of an intraday interconnection capacity allocation mechanism, with two explicit auctions organised on a daily basis by the CASC (Capacity Allocation Service Company) platform. This organisation centralises the buying and selling of transmission capacity by running explicit auctions across multiple borders. In April 2012, the CRE approved this reform, which represents a step forward, since previously there was no process to allocate capacity within this timeframe. However, it reminded the parties involved that the target model for the intraday timeframe is an implicit allocation of interconnection capacity via continuous trades on the electricity exchanges. This more efficient interconnection usage mechanism makes it possible to integrate the intraday markets operated by the electricity exchanges in the various Member States, and group these markets' liquidity together within a shared order book. This way, subject to available interconnection capacity, all market players have access to the cheapest supply. The French and Italian transmission system operators should comply with this model by 2014. To this end, they are expected to provide a detailed action plan and make a number of improvements from spring 2013 onwards.

The CRE's approval of the changes to the rules on the allocation of intraday interconnection capacity at the Swiss border made it possible to introduce a continuous mechanism in January 2012. In July 2012, the CRE approved a modification to these rules for the borders with Germany and Switzerland. These modifications are designed to restrict player behaviours that prevent the interconnections from being used effectively. On this occasion, the CRE reminded everyone of the need to reconsider how priority access to long-term France-Switzerland contracts is handled, in order to optimise trading, and is working with its counterparts to find a solution. Alongside this, the CRE consulted operators who were active at the French interconnections. The latter were mostly in

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favour of setting up explicit access alongside implicit access for the intraday timeframe. In autumn, a regulator-initiated project was launched in order to extend the France-Germany model to Switzerland, in line with the target model.

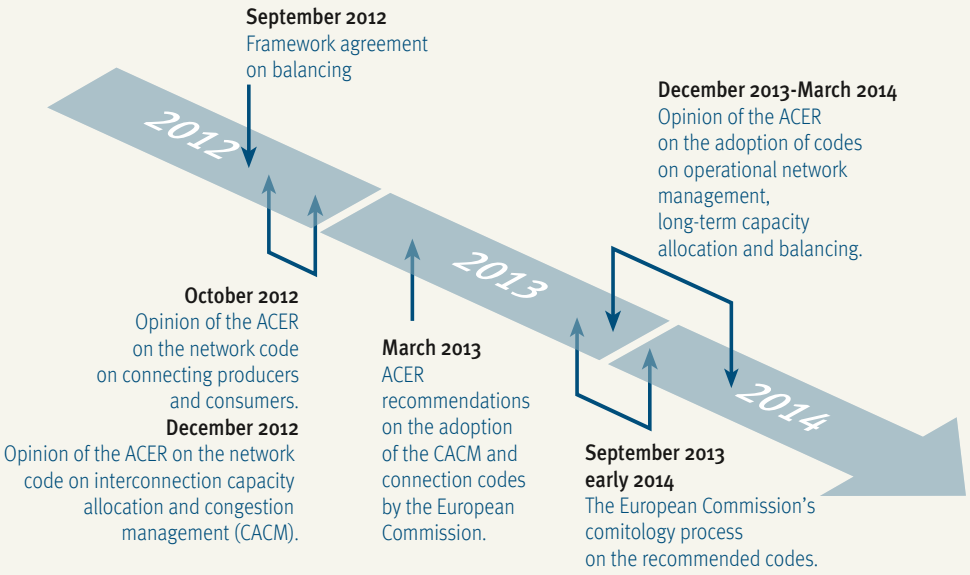
Finally, in 2012 the CRE played an active role in market integration pilot projects, which should be completed in 2013. These projects involve:

- calculating capacity using a new optimisation method in the Centre-West region (flow-based method, *see box p. 51*), for which the CRE helped set the transparency criteria for the test phase and analysed the various parameters in cooperation with its counterparts in the region, to ensure they were effective and non-discriminatory;
- the extension of market coupling to the Nordic countries and Great Britain (which should be followed by an extension to the South-West region), which requires a change to the rules on access to the France-Great Britain interconnection. These rules must be approved by the CRE, and the CRE and Ofgem have formulated clear drafting guidelines for them, in line with the ACER's recommendations.
- and the introduction of a common platform for intraday allocation in the North-West region, for which the ACER may be approached to give its opinion on the choice of platform. The CRE would then join them in drafting this opinion.

Alongside the regional initiatives, the development of the network codes is continuing as part of the establishment of the integrated European electricity market.

The network code on allocation of interconnection capacities and congestion management

En September 2012, ENTSO-E submitted an initial version of the network code on interconnection capacity allocation and congestion management. This deals with calculating interconnection capacity, defining price zones and capacity allocation mechanisms for daily and intraday timeframes. In December, the ACER issued its opinion, along with an explanation: while stressing the efforts made by ENTSO-E, the Agency identified several points that did not meet the requirements of the framework guidelines. It invited ENTSO-E to review the code as a result. The CRE played a central role in the debates and in formulating this opinion, and along with its European counterparts and the ACER, suggested



◂ *Real progress has been made in drafting the network codes.* *The first network codes should be adopted by the European Commission by early 2014 and will form a basis for the construction of an integrated electricity market. We have largely kept to the schedule for drafting the framework guidelines and network codes, thanks to a high level of cooperation between the CRE, ACER and other European regulators.*

targeted, concrete improvements to guarantee the compliance and high quality of the code, without delaying its implementation.

The network code for long-term capacity allocation

Work on drafting the network code for long-term capacity allocation (mainly monthly and annual) began in autumn 2012, at the European Commission's request. The regulators proved very active in suggesting a public consultation in the summer, on the subject of the harmonisation of allocation rules and hedges (instruments that enable capacity holders to cover themselves financially if they anticipate an electricity price differential on either side of the border which would be unfavourable to them). As the leader of the working group concerned, the CRE played a significant role at all stages of this public consultation, and in drawing up a list of recommendations on the harmonisation of auction rules. This work contributed towards the implementation of the target model, ahead of the network code coming into force, in order to reach its aim of a harmonised, integrated market by 2014. The code must be submitted to the ACER by 1 October 2013, and its opinion must be issued by the end of December.

1.2. The harmonisation of system operators' practices reinforces operational security and facilitates the integration of new producers

Among the European network codes currently being prepared, several have the main aim of initiating a harmonisation of European practices, jointly aimed at improving the security of the electrical system and limiting operating costs, in the context of rapid development of new energy sources.

The network codes on connection

Every installation connected to the electricity networks must comply with the technical requirements, which are now defined at a national level, in order to contribute to the reliability of the electrical system.

The European network codes on connection provide a framework for these technical requirements. They make provision for the widespread use of several mechanisms designed to reinforce the security of the European electrical system, such as a wider frequency range for all generation facilities. These codes form the basis for increased harmonisation

◂ *The France-Spain connection will increase electricity trading capacity between the two countries from 1,400 to 2,800 MW. Construction site for the France-Spain interconnection.*

© RTE – J. Cargill

▸ *October 2012: inauguration of the French tunneller "Canigou" and the start of work on the utility tunnel on the French side, at the construction site for the France-Spain interconnection.*

© RTE – J. Cargill

of the European rules, although their immediate impact should remain limited.

There will be three network codes for different user categories. They should come into force between 2017 and 2020. The first code, aimed at producers, was the subject of an opinion issued by ACER in October 2012. In particular, it asked for the rules governing system operators to be clarified. It also asked for more consideration to be given to the specific features of some small installations, as well as some cogeneration installations. A second code, aimed at consumers and distribution system operators, is currently being drafted. The third code, which relates to direct current installations, is scheduled for a later date. In addition, the procedures for processing connection requests will be covered by an additional code.

The network code on balancing

Maintaining the balance between production and consumption at all times is one of the main missions of the transmission system operators. In order to reinforce supply security at the lowest possible cost, the integration of supply-demand balancing mechanisms is a key stage in creating a competitive internal market for electricity. The third energy package makes provision for a European network code specifically dedicated to these mechanisms.

The framework guidelines of the ACER, whose drafting work was co-steered by the CRE, define an essential regulatory framework for gradually developing balance trading based on an ambitious but realistic target model. These framework guidelines set out the main reference points for creating a common platform where the most economical resources will be used to meet adjustment needs. In response to the requirements of the European Commission, these framework guidelines recommend a high level of harmonisation between system operators' practices and balancing mechanism characteristics. To this end, they promote increased coordination between transmission system operators and the introduction of effective incentives for market players.

The network code on operational security

One of the responsibilities of the electricity transmission system operators is to guarantee robust operating conditions at all times and, in the event of any incidents, resolve the situation as quickly as possible. Since the European

transmission networks are largely interdependent, this requires close collaboration between system operators.

The primary aim of the network code on operational security is to harmonise transmission system operators' practices and guarantee an exchange of information between them and with users, including in real time. This code is currently being drafted and will eventually be part of a set of codes dedicated to operational management of the electric system (system operation).

1.3. New investments in major networks meet a Europe-wide need

The ten-year plans (TYNDP)

In order to achieve the aims of European energy policy and the "3x20" objectives, new infrastructures must be built. In response to these objectives, the third energy package introduced a strategy to plan priority investments in electricity transmission infrastructures. This is based on the publication of a European ten-year plan to develop the electricity transmission network by the European network of electricity transmission operators, ENTSO-E. This plan should be published once every two years and is non-binding. After a pilot version of the European ten-year plan was published, ENTSO-E began drafting its first ten-year network development plan in 2011 (Ten-Year Network Development Plan or TYNDP) including European perspectives on the adequacy of production capacities (System Outlook and Adequacy Forecast or SOAF), the European ten-year plan and the six regional plans. After holding ten or so workshops and a public consultation to build up support amongst the players involved, ENTSO-E published the final version of its plan in July 2012.

The plan identifies around one-hundred projects worth 104 billion euros in investment. In fact, the extensive development of means of renewable energy production, which account for up to 38% of demand, stimulates the development needs of large electricity infrastructures in Europe, in particular with the reinforcement of the North/South axes. The projects presented could save 170 million tonnes of CO_2 and reduce production costs by 5% at the European level.

The decision to conduct economic studies of the projects on a European scale is one of

€104 billion

The ten-year development plan for the European transmission network published by ENTSO-E in July 2012 identifies around one-hundred projects worth 104 billion euros in investment.

The decision to conduct economic studies of the projects on a European scale is one of the major advances made by the Ten-Year Network Development Plan. This involves carrying out a multi-criteria analysis of the projects to measure their usefulness for the community.

the major advances made by the TYNDP. This involves carrying out a multi-criteria analysis of the projects to measure their usefulness for the community. It is the first stage in the development of a cost-benefit analysis approach, which will contribute to the process of selecting the Projects of Common Interest set out in the infrastructures package launched in summer 2012 by the European Commission.

Following the analytical work on the TYNDP steered by the CRE and its Austrian counterpart, the ACER issued its opinion on ENTSO-E's plan on 5 September 2012. For the next tax year, the Agency expressed high expectations for greater involvement of players and inclusion of projects owned by third-party operators who are not members of ENTSO-E.

The drafting of the TYNDP is a process which lasts over two years and requires dialogue with numerous stakeholders at each stage of the process. This dialogue is organised around the traditional plan consultation processes (workshops, public consultation). Work on drafting the 2014 edition of the TYNDP began with the organisation of workshops in March and November 2012 to prepare for supply and demand scenarios by 2030. As well as these workshops, and following the regulators' recommendations, ENTSO-E set up a working group in late 2012 (Long Term Development Stakeholder Group) to encourage players in the sector to be involved throughout the process of drafting the TYNDP. Finally, in consultation with third-party operators, the European Commission and a group of regulators steered by the CRE, in late 2012, ENTSO-E reviewed the criteria for including projects run by third-party operators and non-members of ENTSO-E in the TYNDP. In 2014, the latter will become the sole reference and planning tool for the implementation of the infrastructure package.

The regulations on Trans-European energy infrastructures

Beyond the planning approach introduced by the third energy package, the effective creation of the infrastructures identified in the TYNDP within a ten-year period requires the operators to have the necessary technical and financial capacities within the given timeframes. In addition, there are difficulties in terms of social acceptability in Europe, which is one of the main obstacles to the timely creation of large electricity infrastructures and ipso facto

NSCOGI, an initiative on the scale of a particular territory

Installed electrical capacity in the North Seas will reach 38 GW in 2020, and could double or almost triple by 2030 depending on the scenario. In parallel, increasing the share of renewables in the energy mix and the integration of the European market generate an increased need for trading capacities between countries. The delivery of energy produced at sea and the need for cross-border capacities require the development of the existing infrastructures which, until now, only performed one of the two functions.

The North Seas Countries Offshore Grid Initiative or NSCOGI examines the usefulness and possibility of developing a network in the North Sea that would bring the electricity generated offshore to consumption centres as well as cross-border flows. CRE is actively involved in this work.

The first results indicate that such NSCOGI a pooling of needs may reduce the required number of connection points between maritime structures and terrestrial networks, and therefore reduce the impact (visual, environmental, social) on the coast. It could also result in an economic gain: the first simulations show that the network costs would decrease by 5 to 7%. This rate, however, could vary greatly depending on the project.

Clear and effective regulation is a prerequisite for the development of such a network. However, the current regulation does not specify how these innovative structures should be handled. The relationship between the priority given to interconnection flows and that given to renewable energy flows, for example, is one of the questions that NSCOGI analysed in 2012. It also laid down the principles to facilitate the development of these networks, from identifying the need to operating the structures. ■

To find out more:
http://www.benelux.int/NSCOGI/NSCOGI_WG1_OffshoreGridReport.pdf

▾ *The North Seas initiative for an offshore wind farm network is the first step in the European "supergrid" project.*
Offshore wind turbine in Denmark. © Fotolia

▸ *For the main 400 kV infrastructures, the ten-year development plan for the French electricity network provides for an investment of 10 billion euros within the next ten years.*
Pylon being transported by helicopter to the Cotentin-Maine line.
© RTE – A. Aybes

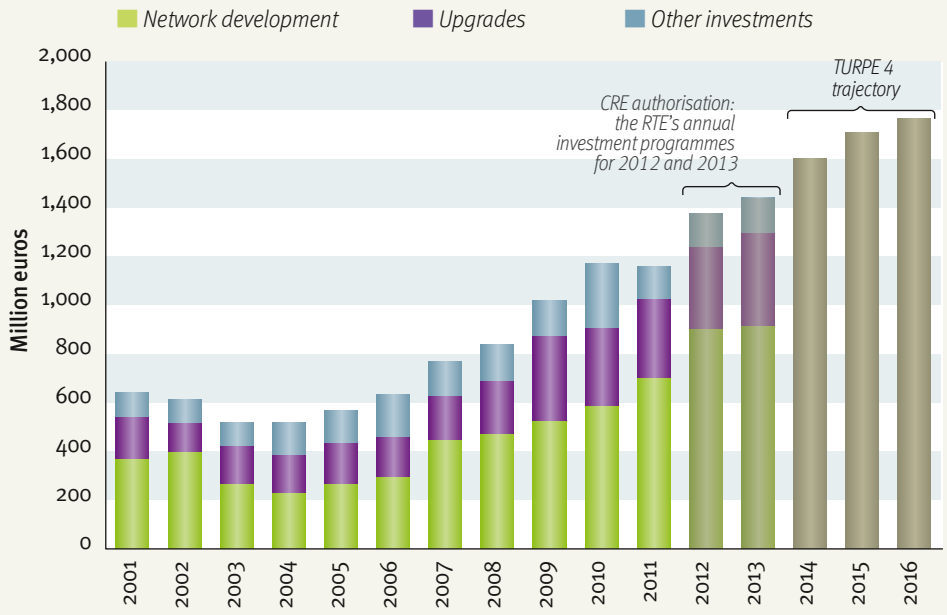
the achievement of European energy policy objectives. The proposal by the European Commission on infrastructure regulation makes provision for measures to facilitate the implementation of a limited selection of TYNDP projects. These are primarily intended to streamline administrative procedures for granting authorisations and foster public support. They also include specific provisions for projects that benefit countries that have not contributed financially (projects with positive externalities). Measures have also been provided for projects that are characterised by a high dispersion of costs and benefits between countries.

To identify which infrastructure measures which were eligible for priority, the European Commission launched a selection process with the participation of Member States, operators and regulators in summer 2012, before the entry into force of regulations on infrastructure. This work will allow the adoption in 2013 of an initial list of Projects of Common Interest in the European Union.

2. THE FRENCH NETWORK IS CHANGING TO MEET NEW NEEDS

2.1. Investment in the national network is combined with planning on a European scale

Since the transposition of the third energy package, transmission system operators have been required to develop national ten-year network development plans. The RTE submitted the first edition of the ten-year development plan for the French electricity transmission network to the CRE in January 2012. For the main 400 kV infrastructures, the plan provides for a total investment of around 10 billion euros within the next ten years. The needs identified at the national level firstly meet European integration issues regarding renewable energy and the development of trading capacity with neighbouring countries. But they also include objectives of a more specifically national nature, such as securing the power supply to some areas like the east of the PACA region or Brittany.



◂ *RTE investments.*
The RTE's authorised investment expenditure for 2013 amounts to €1.44 billion, of which €404.7 million is set aside for the development of the 400 kV network and interconnections.

The RTE's ten-year plan was submitted for review by the CRE. The regulator ensures that it covers the future needs of the electrical system and checks its consistency with the European plan prepared by ENTSO-E. To this end, the CRE conducted a public consultation to gather players' views and made public a summary of players' contributions as well as its opinion on the ten-year plan. While the first ten-year plan appears consistent with the European plan, the CRE has raised some areas for improvement in the next edition: it notes that explanations should be given regarding the production and consumption hypotheses on which it is based, and how they interact with the scenarios of supply and demand proposed for the TYNDP.

This exercise is complemented by a review of the RTE's annual investment programme by the CRE. It should be noted, however, that the scope of these two exercises is not the same. The ten-year plan focuses on key infrastructures to be built or upgraded over the next ten years. As for the annual investment programmes, these include investments for development and upgrades as well as other investments such as logistics. The RTE submitted its investment programme for 2013 to the CRE for approval in late 2012. The RTE's authorised investment expenditure for 2013 amounts to €1.44 billion, of which €404.7 million is set aside for the development of the 400 kV network and interconnections.

When setting tariffs for the TURPE 4 period, the RTE set out its investment trajectory for the 2013-2016 period. According to the CRE's analysis, the proposed increase in investments appears to be in line with the latest forecasts for supply and demand as set out in the provisional assessment published by the system operator in September 2012.

2.2. Innovative regulation meets the need for an increase in cross-border trading capacities

The development of electrical interconnections is a prerequisite for the emergence of an integrated European energy market. They enable more effective operation of European power plants in a context of strong growth in intermittent renewable energy. Finally, they are a key factor in ensuring supply security.

As part of the coming tariffs for the use of the public electricity grids (TURPE 4) which will come into force in August 2013, the CRE intends to introduce a regulatory framework designed to encourage the RTE to build interconnections which will be useful to the electrical system, and encourage it to perform to a high standard.

Delivering interconnection projects requires special efforts from the transmission system operator. They must overcome many difficulties: dealing with natural obstacles which are often present at the borders, coordination with their European counterparts, obtaining administrative permissions and the challenge of securing acceptance of the project at the local level.

As part of the coming tariffs for the use of the public electricity grids (TURPE 4) which will come into force in August 2013, the CRE therefore intends to introduce a regulatory framework designed to encourage the RTE to build interconnections which will be useful to the electrical system, and encourage it to perform to a high standard, whether in the implementation phase or during operation of the newly created interconnection.

The proposed mechanism, which was submitted to the players in June and November 2012 so they could give their opinion on it, would consist of allocating bonuses: one fixed and the other three variable. The amount of the fixed bonus would be determined case by case, depending on the estimated benefits of the interconnection. The variable bonuses could be positive or negative. The amount would depend on achieving objectives of cost, time and additional flows provided by the structure.

The total bonus attributed to the RTE would be spread over a decade after the commissioning of the interconnection. The amount would be capped, taking into account the economic contribution of the structure and the cost of investment. Finally, to provide a real incentive, the fixed bonus and variable bonuses would be positive in all cases. The RTE would therefore receive compensation at least equivalent to what they could receive for other investments.

Exemption for new interconnections

Although French law appoints the RTE as manager of the electrical interconnections, European regulations allow other players to develop and manage an interconnection, if an exemption from certain sections of the applicable regulations is granted by the relevant regulators. These new interconnections can, like regulated interconnections, generate benefits for the company. But they are also likely to generate costs for network users. Indeed, if connecting to the new interconnection requires the network to be reinforced, the cost of this work is shared by all of its users, as is the case for any reinforcement *(excluding S3REnR, see part 3.2.)*.

◂ *The CRE ensures that the RTE's ten-year plan covers the future needs of the electrical system and checks its consistency with the European plan prepared by ENTSO-E.* *Pylon under construction on the Cotentin-Maine line. This line makes it possible to incorporate the Flamanville 3 power plant project, which uses EPR technology, into the electricity transmission network.*

© RTE– A. Aybes

In 2012, the CRE updated the regulatory framework for new interconnections. This gives the interconnection project owner the visibility needed to make such an investment. To obtain exemption, the operator must satisfy several criteria. The CRE may refuse to grant exemption if it considers that the new interconnection leads to negative consequences for network users which are disproportionate to the expected gains. If exemption is granted, the framework will help the new interconnection to function as effectively as possible.

The regulatory framework was updated following a public consultation. The section on the conditions of connection and access was presented to the Supreme Council of Energy on 2 May 2012. It introduces several new features compared to the 2010 version. For instance, the CRE could require the investor to keep their transmission business separate from their other energy-related activities. In addition, operators of new interconnections will be involved in the possible development of coordinated methods for calculating interconnection capacity. Finally, network codes should generally be applied.

3. TAKING ACCOUNT OF THE REGIONAL AND LOCAL DIMENSIONS IN THE DEVELOPMENT OF THE ELECTRICITY NETWORKS

The work of the CRE on intelligent networks began in 2010, with an initial conference on the technical, social and economic challenges of smart grids. While these issues are still on the agenda, a new milestone has been reached: it is now in the field, through practical experiments, that the technical feasibility and economic benefit of developing these networks are being proven. These local initiatives raise new questions about regulation, which has to adapt to the new French energy landscape.

3.1. Competences of the local authorities in the area of distribution network development: updated methods of practice

The concession system

The operation of the public electricity distribution networks is a local public service. As stated in article L. 2224-3 of the General Code of Local Authorities (code général des collectivités territoriales - CGCT), *"the organising authority*

€1.44 billion

The RTE's authorised investment expenditure for 2013 amounts to €1.44 billion, of which €404.7 million is set aside for the development of the 400 kV network and interconnections.

▸ *The provisional programme of investment planned for the distribution network, which sets out the cost and location of the work, is drawn up at a departmental conference chaired by the prefect, and sent to each of the contracting authorities. .*
Inspection of the 20 kV overhead high voltage electricity network, by helicopter, between Drap and Peïra-Cava (Alpes-Maritimes).
© ERDF-M. Colin

▸ *Aims of the SRCAE on 1 September 2012 (in MWh).*
The regional climate, air and energy plans (schémas régionaux du climat, de l'air et de l'énergie - SRCAE) define the qualitative and quantitative goals to be achieved in terms of managing demand for energy, fighting climate change and air pollution, and fulfilling our potential in the field of renewable energy.
Source: RTE

The rights and obligations of the authority in charge of organising distribution are set out in a list of specifications or service regulations.

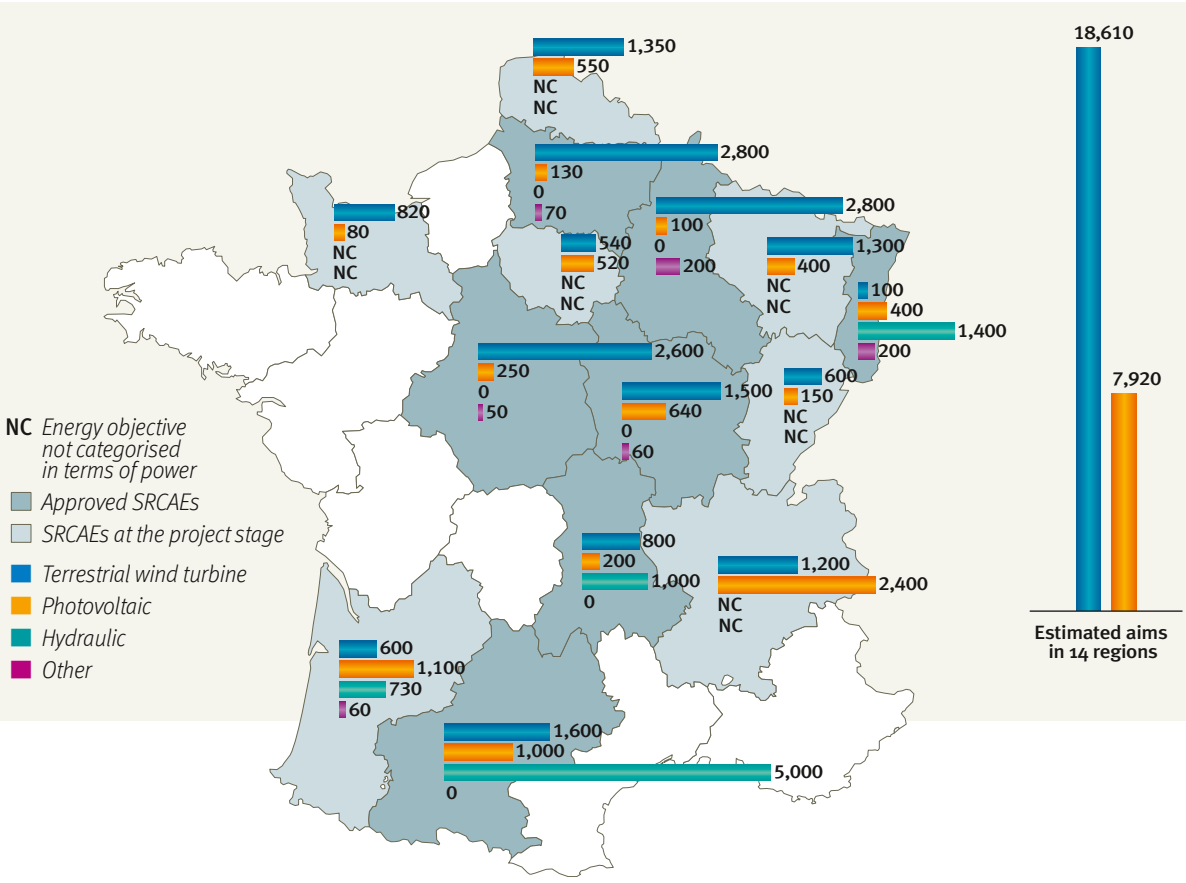
in charge of a public distribution network, operated by the authority or as a concession, is the commune or public cooperation establishment to which it has transferred this competence, or the department if it exercised this competence on the date of publication of law 2004-803 of 9 August 2004 relating to the public electricity and gas service, and the electricity and gas companies".

Under the nationalisation law of 1946 (reproduced in article L.111-52 of the Energy Code), management of the electricity distribution networks was transferred to the ERDF and local distribution companies, which and are, to the extent that they have a monopoly on the distribution of electricity, the "compulsory" contractors. The rights and obligations of the organising authority are set out in the list of specifications or service regulations, depending on whether the system is operated under concession or centrally, that is to say, directly by the local authority (Article L. 432-2 of the Energy Code).

While network development work is normally paid for by the contractor, the organising authority, in the case of work to establish, extend, reinforce or improve distribution facilities, has the option to have them carried out wholly or partly at their expense (article L.322-6 of the Energy Code). Contracted public distribution facilities are considered to belong to the contracting authority from the outset (article 2 of the model list of specifications for electricity distribution).

Departmental conferences as planning exercises

Article 21 of law no. 2010-1488 of 7 December 2010 on the reorganisation of the electricity market was an amendment to article L. 2224-31 of the CGCT.



Thus, in accordance with the new provisions of article L. 2224-31 of the CGCT, every electricity and gas distribution organisation sends each of the contracting authorities a report on their investment and network development policy. Based on this report, the organising authorities draft a detailed assessment of the implementation of the provisional programme of all planned investments on the distribution network. This provisional programme, which sets out the cost and location of the work, is drawn up at a departmental conference chaired by the prefect, and sent to each of the contracting authorities.

By setting out the programmes of investment in the distribution network on a departmental scale, these conferences help ensure better coordination of investments between the various project owners.

3.2. Taking regional specificities into account when planning the electricity networks to include renewable energy

The regional plans for connection to the renewable energy network (S3REnR)

The Grenelle 2 law introduced local targets for renewable power generation to be achieved by 2020 and 2050. In this perspective, the regions have drawn up regional climate, air and energy plans (SRCAE), which are jointly developed by the regional prefects and presidents of regional councils, in consultation with local authorities. The SRCAEs define the qualitative and quantitative objectives in terms of managing demand for energy, the fight against climate change and air pollution, and fulfilment of our potential in terms of renewable energy.

Specific features of non-interconnected zones

The five overseas departments, the overseas collectivities of Saint-Barthélemy, Saint-Martin and Saint-Pierre-et-Miquelon, as well as three Breton islands (Molène, Ouessant, Sein) are not connected to the continental mainland electricity network. Although it has a limited interconnection with Sardinia and Continental Italy, Corsica is also classified as a non-interconnected zone (zone non interconnectée - ZNI). In these zones, the electricity sales tariffs for private individuals are the same as those on the continental mainland, whereas the average cost of producing a kWh y is higher. This is the tariff equalisation principle. The application of this principle makes operators liable for costs, which are part of the public service charges that are reimbursed by the national solidarity fund through a tax paid by all electricity consumers, the contribution to the public electricity service (contribution au service public de l'électricité - CSPE).

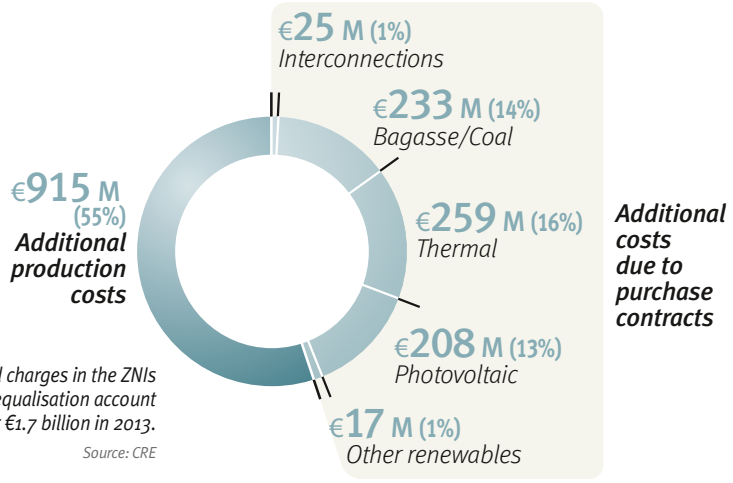
Each year N, the CRE calculates the total charges for the year N-1 and their estimated total for the year N+1. The charges linked to tariff equalisation in the ZNIs account for €1.7 billion, i.e. 32% of the total sum of estimated CSPE charges (€5.1 billion) for the year 2013.

The charges linked to tariff equalisation can be subdivided into two groups:

*– **additional production costs linked to operating the EDF and Électricité de Mayotte (EDM)** power plants. In the ZNIs, the EDF's generating capacity mainly consists of thermal power stations (diesel groups, combustion turbines) and, in some areas like Guiana, hydraulic power stations. EDM's generating capacity consists of two thermal installations. Consequently, fuel purchases are their main expenditure and additional production costs depend heavily on raw material prices;*

*– **additional production costs due to contracts signed by EDF (respectively EDM) and independent producer**s, either as part of a call for tenders or purchase tariff (articles L. 314-1 and L. 311-10 of the Energy Code), or under a negotiated contract that contributes to maintaining the supply/demand balance (mainly for thermal or bagasse/coal power stations).*

Worryingly, non-interconnected areas are experiencing much higher annual growth in electricity consumption in comparison with the mainland, linked in particular to rising living standards, increasing equipment-to-household ratios and more widespread use of air conditioning. These areas are an ideal place to develop renewable energy competitively. Indeed, the costs of electricity generation are high there, mainly due to the smaller size of the means of production and the price of fuels and their delivery. However, their networks, which are by their very nature isolated, are still limited in their ability to integrate variable energies such as solar and wind. ■



▸ *Estimated charges in the ZNIs due to tariff equalisation account for €1.7 billion in 2013.*

Source: CRE

◂ *Non-interconnected areas are an ideal place to develop renewable energy competitively.*
View of the wind farm at Sainte-Rose in Réunion.
© J.-L. Petit

Based on these objectives, the Grenelle 2 law provides a tool for local planning of the development of public electricity networks to accommodate the production of electricity from renewable sources: regional plans for connection to the renewable energy networks (S3REnR). These plans are prepared by the public transmission system operator in accordance with the public distribution system operators. They are approved by the regional prefects. They may include sub-regional components, which may involve several administrative regions. In this case, these components are approved jointly by the prefects of the regions concerned.

The terms of implementation of the regional connection plans have been specified by a decree (No. 2012-533 of 20 April 2012), on which the CRE issued an opinion on 21 February 2012. The regional plans for connection to the renewable energy network define, on a regional or sub-regional level, which public electricity structures (source substations and structures in the public transmission network) need to be created or reinforced in order to accommodate the production of electricity from renewable sources as set out under the regional climate, air and energy plans. In these existing or soon-to-be-built structures, capacity is then reserved for facilities generating electricity from renewable sources, for a period of ten years.

The approval of plans by the regional prefects does not imply that all the planned structures have to be built immediately: the start of work is determined by criteria set by the public electricity system operators. However, upon approval of the plans, they must carry out the technical and financial studies necessary for the execution of works and commence administrative authorisation procedures. These administrative procedures (planning permissions, approval of works, etc.) can sometimes take a long time. The pre-emptive approach permitted by the regional connection plans therefore helps to provide faster network access for renewable electricity producers. The regional plans for connection to the renewable energy network also raise important questions about the pooling and sharing of network development costs to accommodate renewable energy production.

"Énergies et territoires : une régulation, des regulations" symposium, 11 October 2012

On the eve of two major discussions in France, one on energy transition and the other on decentralisation, the CRE held a symposium in Paris, "Énergies et territoires : une régulation, des regulations" ("Energies and territories: regulation and regulations"). Round tables were attended by local officials (Jean-Luc Dupont, Mayor of Île-Bouchard; Jacques Bucki, Mayor of Lambesc in Bouches-du-Rhône and Martin Haag, Deputy Mayor of Freiburg-im-Brisgau) and energy operators (Michèle Bellon, President of the Board at ERDF; Laurence Hézard, Director General at GrDF; Olivier Sala, Director General at GEG). The discussions covered issues such as local governance, the energy policies of tomorrow and possible regulatory changes, on a local, national and European scale.

To summarise:

Beyond their traditional missions relating to the planning and organisation of gas, electricity and heat distribution, local authorities are seeing their role expand in areas including renewable energy and energy efficiency. They are increasingly taking initiatives to experiment with new energy technologies.

The opening up of the energy markets has strengthened the role of the authorities in charge of organising distribution, which is to ensure the proper performance of the duties of public service in local distribution. For their part, public distribution system operators emphasise the complexity of the management and running of distribution networks.

The regulator, for their part, has a role to play in governing the energy policies of tomorrow, by contributing their skills to local initiatives.

All these players will need to work together to form a bond of trust if the energy transition is to be a success. This enhanced collaboration on local projects will lead to national solutions. ■

3.3. Local experiments with smart grids help prepare for the electricity networks of tomorrow

The current electricity networks must be adapted and modernised to deal with the increase in consumption, the need to emit less carbon into the environment, and the increase in decentralised electricity generation from renewable sources. They are evolving thanks to the addition of new information and communication technologies (NICT) on the existing electricity networks. They are being turned into smart grids, which are more active and flexible. Smart grid technologies will help deliver electricity in a more efficient, sustainable, economically viable and safe way thanks to improved interaction between the various players in the power system. The current system, where real-time balance is maintained by adjusting production to reflect consumption, will evolve towards a system where balancing will take place more on the demand side, thus making the consumer a real player in the power system.

The islands, ideal territories to experiment with smart grids

The islands are fragile territories in terms of energy. In the case of France, Corsica and the overseas collectivities and departments are small, isolated power systems which have several specific features that make them different from the mainland:

- they have few or no interconnections with the continental electricity network;
- growth in electricity consumption is far higher there than in mainland France. It stands at an average of + 3.8% per year for all the overseas departments (versus + 1% per year on the mainland);

◂ *The research platform for the development of solar power and energy storage using hydrogen technologies, named MYRTE (Mission hYdrogène Renouvelable pour l'inTégration au réseau Electrique - Hydrogen & Renewable Mission for Integration into the Electricity Network) was inaugurated in January 2012.*

© Université de Corse

– the electricity consumed in non-interconnected zones must be produced on site. Basic production is carbon-heavy (oil and coal), even though renewables account for an increasing proportion of the islands' electricity mix. EDF's power plants deliver around 25% of renewables, of which 20% is made up of hydraulic energy.

These particularities make the islands unusual territories in terms of power system management. Faced with the need to guarantee supply security in this particular context, the island zones have naturally become a laboratory for experimenting with smart grids. This is why many research programmes and smart grid demonstration programmes have been launched in the island territories, for instance electric cars (VERT projects in Réunion and Driveco in Corsica), demand management and demand steering (Millener projects in Réunion, Corsica and Guadeloupe, and Address projects in Houat and Hoëdic) and storage development (Pégase projects in Réunion and Myrte projects in Corsica). These achievements could serve as economic and technological models for projects on the mainland territory.

The island zones have naturally become a laboratory for experimenting with smart grids. This is why many research programmes and smart grid demonstration programmes have been launched there.

Storage, a decisive turning point for the French power system

The Pégase and Myrte projects under way in the island territories combine renewable electricity generation facilities with means of storage (batteries, energy transfer pumping stations used in mountainous areas, hydrogen, etc.) to correct any discrepancies between the forecast for renewables and actual production.

These two projects are among the many experiments with storage technologies currently being conducted in France (Nice Grid and EnR'Stock) and other countries (InGrid in Italy).

The Linky meter, a central part of the GreenLys local smart grid demonstrator

Renewable energy, electric cars, positive energy buildings: our towns are full of the energy challenges of tomorrow, and are becoming sites for innovation and experimentation with smart grid technologies. This is why Grenoble and Lyon, cities at the cutting edge of research into the energy transition, have teamed up to create an urban smart grid demonstrator: GreenLys.

This project, selected from the Ademe's first call for expressions of interest in the field of smart grids in 2009, experiments with intelligent power grid technologies under real-life conditions: storage, charge management for electric cars, and optimised demand management. The aim of GreenLys is to make distribution network management more intelligent and more responsive, to incorporate a large number of photovoltaic electricity generation facilities in the network and encourage end consumers to be more involved in balancing the system.

The Linky smart meter, deployed among 1,000 residential customers and 40 tertiary sites, plays a key role in this experiment. Thanks to its advanced functionality, it will give the end consumer improved service quality, and enable them to manage their consumption more effectively. Electricity distribution system operators will be able to optimise the integration of decentralised renewables. They will build up a more in-depth knowledge of their networks, which will make it easier to detect and reduce losses and manage peak periods.

The project is steered by ERDF and includes Schneider Electric, the INP-Grenoble, GDF SUEZ, GEG, RTE, Atos and Alstom. It will last for three years.

© ERDF – A. Sargos

Moreover, the list of specifications in calls for tender implemented by the CRE for the development of renewable energy may expressly require bidders to make provision for storage in their projects (call for tenders for the construction of terrestrial wind turbines in the overseas departments and Corsica in 2011, and ground or building-mounted solar plants in 2012). This is helping to develop technologies to reduce the impact of intermittent energy on the electricity network.

Storage technologies will add flexibility to the power system and will be useful in various ways:
- optimising generating capacity by staggering consumption and promoting the integration of renewables;
- making the system more secure by improving frequency and voltage regulation, and by making it easier to manage congestion;
- and improving the service provided to consumers in terms of supply quality.

The accelerated pace and increasing quantity of research and demonstration work in this area are the result of recent changes in the energy and environmental context. Because of the development of variable renewables like wind power and photovoltaic power, the power systems are now dealing with an increased need for flexibility. Yet the existing solutions, such as thermal production, interconnections and load management, which are subject to social and environmental constraints and limits on the pooling of renewables between countries, do not meet these needs adequately.

While the technological prospects are promising, economic and regulatory obstacles are severely hampering attempts to develop storage on a

Jean-Jack Queyranne,

President of the Regional Council of Rhône-Alpes and President of the Commission for Sustainable Development and the Environment of the Association of the Regions of France.

As a large producer and consumer of energy, the Rhône-Alpes region is involved very actively in the debate on energy transition. Its president strongly advocates the establishment of a highly decentralised model, but also a clear and stable regulatory and fiscal framework to enable the development of renewable energy. He spoke to us about the various practical implications of changes in the energy mix at the local level.

What do you think are the main consequences of the integration of renewables into the networks, on a local level?

The French electricity network was built in a centralised, pyramidal way to deliver energy from the major production centres to consumption areas which were often remote. Today, it is therefore ill-equipped to accommodate local production of renewable energy. Considerable investment is required to adapt the network, especially as the distribution network has suffered from under-investment over many years.

Until now, system operators have sorely lacked visibility with regard to the volume and location of local projects. This will change with the regional climate, air and energy plans (SRCAE) which set targets for the development of renewable energy. The resulting regional plans for connection to the renewable energy network (S3REnR) will allow for better planning of network investments and rationalise project implementation.

I am sorry that the regions are not automatically involved in developing these plans. I am convinced that in the future, relationships between regions and operators will become much stronger.

Should the development of smart grids be encouraged more on a local level?

Smart grids are one of the main levers to control energy demand. The Linky meter experiment which was conducted in Lyon was a real success, very encouraging for the future. But the deployment of smart meters is only a first step. At the local level, public policy should take over from technology to encourage and assist citizens in reducing consumption.

The field of smart grids is also central to innovation. French companies are well positioned in this segment. It will of course help them in their development, particularly through the public investment bank but also through a dynamic domestic market.

In your region, what initiatives have you encouraged and what form have they taken?

Rhône-Alpes has a special position in France on renewable energy. We produce 40% of hydraulic power in France. Our situation is also special with regard to wood energy, with 67% of regional heat production coming from this source. The region has already 20% renewable energy in its energy mix. Finally, many of the iconic renewable energy companies have their headquarters in Rhône-Alpes: CNR, BOSH, Photowatt.

Since 2004, the region has been highly committed to developing renewable energy, using the lever of public procurement, and equipping schools with photovoltaic power. We have also made significant investments in research, particularly through the Tenerrdis cluster, the INES at Le Bourget du Lac, and the CEA in Grenoble. We have also launched several calls for projects, especially with the ADEME, to develop positive energy buildings and anaerobic digestion. We will also be launching an investment fund for the development of renewable energy in the near future. ■

large scale. In fact, storage technologies require major investment and their business model still needs to be fine-tuned. Moreover, the status of "storage provider" remains uncertain. In France, the regulations make no distinction between production sites, storage sites and consumption sites. All storage units are therefore subject to the tariff for the use of the public electricity grid, whether they are withdrawing electricity from the network, or injecting it.

The Zones insulaires et Stockage (Island Zones and Storage) information packs available on the CRE's smart grid website, www.smartgrids-cre.fr, offer an in-depth view of the issues relating to these subjects, for today and tomorrow. ■

GAS INFRASTRUCTURES, THE CORNERSTONE OF A PROPERLY FUNCTIONING FRENCH MARKET AND INTEGRATION OF THE EUROPEAN ENERGY MARKET

By 2018, France should only have one natural gas marketplace, instead of three as is the case today. With a single wholesale price, this change will improve the way the gas market operates. It will require investments to alleviate the main causes of congestion that remain in the French gas transmission networks, alongside the significant investments that have already been implemented or decided upon since the market opened up to competition. These guidelines adopted by the CRE in 2012 are part of a European framework to harmonise national regulations and thereby create one large, integrated market which will enjoy better supply security within an ever-changing global context.

1 single "France" marketplace

The CRE has set itself the goal of a single "France" marketplace by 2018, with an intermediate stage which will see a merger between the GRTgaz South and TIGF PEGs on 1 April 2015.

KEYWORDS

Congestion management

ATRT5 tariffs for the use of the natural gas transmission networks

Incentive regulation

1. THE GLOBAL GAS MARKET IN 2012

At the present time, there is no real global gas market. In reality, there are three separate markets which operate in different ways: the Asian market, the European market and the North American market. These markets have been affected by a series of events which were hard to predict, and which led to strong growth in Asian demand for liquefied natural gas (LNG), persistently low demand for gas in Europe and a boom in non-conventional gas production in North America.

Consequently, in late 2012, gas prices were very high in Asia ($15-20/MMBtu[1] i.e. €40 to €50/MWh) and very low in North America ($3-4/MMBtu i.e. around €10/MWh), with Europe lying somewhere between the two ($10/MMBtu i.e. around €25/MWh).

1 – British Thermal Unit (abbreviated to Btu): thermal unit used commonly in the Anglo-Saxon world, defined by the quantity of energy needed to raise the temperature of a British pound of water to one degree Fahrenheit at normal atmospheric pressure. 1 MMBtu is approximately equivalent to 0.293 MWh.

In Asia, the Fukushima accident led Japan to considerably increase its imports of LNG by boat, to replace its lost nuclear production. To secure its supply, Japan is supplied on the basis of long-term contracts indexed to oil products, whose prices are significantly higher than European prices (the differential between Europe and South Asia stood at around €10/MWh on the spot market in early September 2012). High Japanese demand is supported by demand in other Asian countries such as Korea, China and India. Price conditions in Asia led European LNG supplies to redirect many cargos towards this part of the world.

Consequently, LNG arrivals in Europe dropped by 17 billion m3 between January and August 2012. In the first half, the Fluxys LNG terminal in Zeebrugge saw four times fewer cargos unloaded (10 cargos) than in 2011 (41 cargos). The same phenomenon can be seen in France, in particular in Montoir and at the other European terminals, with gas flows in Europe being reorganised in favour of gas transported by gas pipes.

◂ *The reserves of the Gjøa field, estimated at 40 billion cubic metres of gas and 82 million barrels of oil, are part of the GDF SUEZ portfolio. Gjøa platform located 60 km off the coast of Norway.*

© GDF SUEZ – Haga Jan lige

▸ *GRTgaz's French network and the German transmission network are interconnected at Obergailbach in Moselle. Obergailbach compressor station.*

© GRTgaz – Circusprod /R. Mouron

In addition, weak economic growth and measures taken to achieve the «3x20» objectives, especially for the control of demand, are factors in the lower demand for gas in Europe, which decreased 10% between 2010 and 2011 and again by 2.2% in 2012. The evolution of gas consumption in Europe is now uncertain. The wholesale gas markets in Europe are expanding, favoured by differences between spot gas prices and oil-indexed prices, which make long-term contracts less attractive and lead major European suppliers to negotiate lower volumes and gas purchase prices with the producers.

Meanwhile, in North America, the massive expansion of shale gas production is causing a sharp drop in prices. The price of gas was approximately €10/MWh at the end of 2012. On average, the price gap between North America and the United Kingdom was about €17/MWh in the first half of 2012. The United States and Canada are exploring the possibility of becoming a net exporter of non-conventional gas, which could have a substantial effect on the European and Asian markets.

2. THE EUROPEAN REGULATORS HAVE DEFINED A TARGET MODEL FOR THE GAS MARKET

2.1. Why a Gas target model?

The third package requires a common vision of market organisation

The third legislative package for the "internal energy market" sets out an efficient organisational structure for market integration in Europe. This involves increased harmonisation of the rules on infrastructure access. To build the internal market, which should be complete by 2014, the European regulation (EC) 715/2009 of 13 July 2009 identified eleven areas which will be the subject of new network codes.

LNG arrivals in Europe dropped by 17 billion m^3 between January and August 2012.

◂ *There must be continuity in the gas transmission networks between countries if the expected benefits of European market integration are to translate into greater solidarity between Member States in the event of a supply crisis, for instance the cold spell in February 2012. GRTgaz terminal in Wasquehal (Nord department).*

© GRTgaz – D. Coulier

The work schedule is ambitious, although it is recognised that most of the codes will not be completed in 2014. A first step was to clarify the technical guidelines to focus on during harmonisation work. This is the role of the framework guidelines set by regulators grouped together in the ACER, the Agency for the Cooperation of Energy Regulators.

This work, however, shows that the states lacked a common vision of what a single market would look like when completed, each adopting a regulatory framework specific to the characteristics of its domestic market. This is why the Council of European Energy Regulators (CEER) formalised, in December 2011, a target market model to allow states to align their practices towards a common goal. Approved by the European Commission at the Madrid Forum in March 2012, this Gas target model is not binding, unlike the network codes.

The integrated market and the chosen model promote supply security and the emergence of credible, attractive European gas price references

The discussions on the target market consisted of establishing a vision combining all aspects of the European gas market, from the end consumer to the supply sources, many of which are outside the European Union. Influenced by the model for the electricity market, the chosen gas model gives a central place to hubs. The aim is to promote liquidity and interconnection among the gas marketplaces in Europe. This will stimulate competition by facilitating access to gas for new entrants and establish new price references as an alternative to oil-indexed prices. It is therefore necessary to ascertain the state of tension between supply and demand using price signals which, where appropriate, will optimise the allocation of flows on a European scale. The Gas target model sees the European market as a set of efficient competitive markets, defined on the basis of critical consumption thresholds (more than 20 billion m^3 per year) and supply sources (more than three different gas supply sources).

In addition, it is essential to formalise the rules of access to interconnections, which reduce the risk of congestion and offer the best guarantees of fluidity in gas trading. There must be continuity in the gas transmission networks between

Balancing zones and marketplaces

*In the natural gas sector, a **marketplace** is usually associated with a balancing zone for a pipeline system where different network users have the ability to trade gases.*

*The **balancing zone** is a physical consumption zone supplied by a network of pipelines for which the system operator (or transporter) and the users of their network agree to equalise all gas inputs (injections) and outputs (withdrawals). The contracts between the transporter and network users relate to the transmission of gas within the balancing zone, not the transmission of gas from one specific place to another within the network. Network users then pay the transporter to provide a gas transmission service in the zone, regardless of the distance travelled by the gas. The principle is similar to that of a postage stamp (the price is the same regardless of the distance travelled by a letter in France).*

*A **gas exchange point (point d'échange de gaz - PEG)** usually refers to a virtual point in a balancing zone where the players in this zone can trade gas regardless of its origin or destination. These PEGs are the basis for developing marketplaces. It is possible, but less common, to have a PEG with two balancing zones.*

France currently has three balancing zones for gas with three PEGs, which constitute three marketplaces: one in the north (annual consumption of 30 Gm3), one in the south (annual consumption of 15 Gm3) and one in the south-west (annual consumption of 3 Gm3). GRTgaz, which is 75% owned by GDF SUEZ and 25% by SIG[1], is the gas transporter for the first two. TIGF, 100% owned by Total, is the transporter for the third. A relatively large size and a sufficient number of entry points give a marketplace greater liquidity and attractiveness (due to economies of scale), and tend to favour a decrease in prices to the consumer. ■

1 – Société d'Infrastructures Gazières, public consortium made up of CNP Assurances, CDC Infrastructure and the Caisse des Dépôts.

countries if the expected benefits of European market integration are to translate into greater solidarity between Member States (which will then be more likely to share their sources of flexibility in the event of a supply crisis, *see p. 52*), and the development of synergies between their wholesale markets in favour of lower prices and therefore supply costs. It is with this in mind that the first European network code on transmission capacity allocations was drafted.

2.2. Large marketplaces promote market liquidity, supply security and attractive prices

Reducing the number of marketplaces allows us to increase the size and improve the liquidity and attractiveness of the wholesale market, and tends to favour, all things being equal, a decrease in prices for consumers.

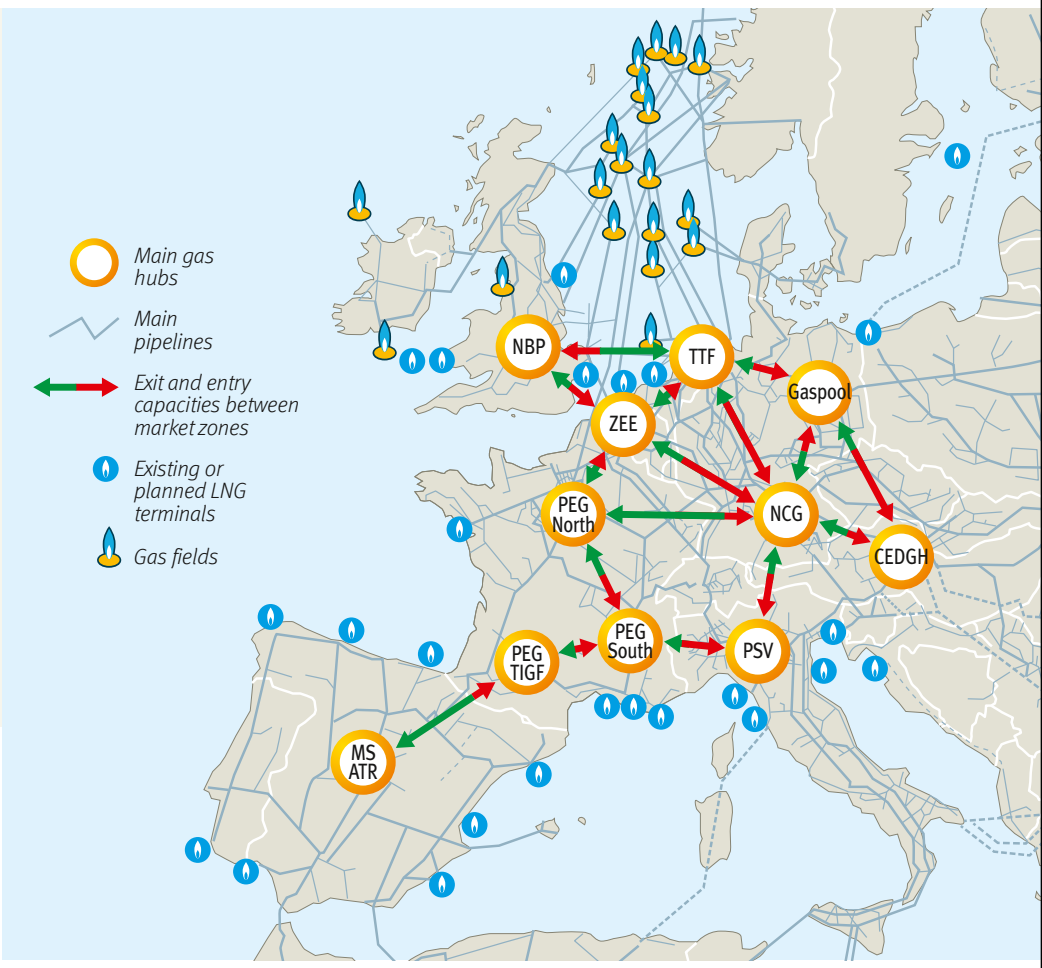
The European model promotes "entry-exit" market zones with virtual exchange points

The principle of reserving separate entry and exit points within a market zone has been clearly established by regulation (EC) 715/2009. Thus, to deliver to a customer, a shipper pays a tariff to enter the market area where the customer is located, then an exit tariff to deliver to their customer, regardless of the location of the customer in the zone. This approach, which eliminates any link between cost and distance covered, was adopted by France in 2003. It facilitates the development of competition between suppliers and between gas supply sources. The principle of non-restriction of gas flow inside the zone thereby creates virtual wholesale markets, in which market players can carry out trades without being constrained by the geographical location of their supplies or their customers. Once the gas has entered the area, it can be traded and delivered freely at the point selected by the buyer, which promotes the development of liquidity and the emergence of competitive prices.

Entry-exit market zones with virtual exchange points (the hubs) thus form the basis of the model for the European market. The three gas exchange points (PEG) French, PEG North, PEG South and PEG TIGF, are based on this model.

▸ *Current organisation of the European gas market:*
– Marketplaces are fragmented.
– To carry gas from zone A to zone B, shippers have to buy entry transmission capacity in zone A, and exit transmission capacity in zone B.

Source: CRE



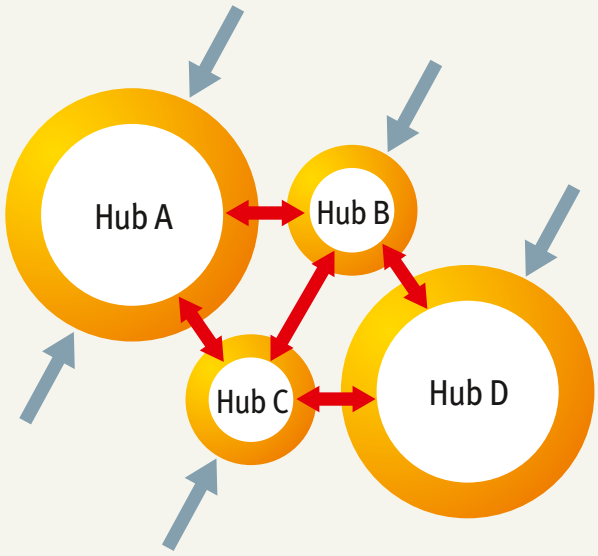
A reduction in the number of marketplaces will make it possible to reach the critical size needed for the development of an effective market

In the case of France, the current market structure, divided into three, only allows us to reach the critical thresholds in the target model in the GRTgaz North zone, which accounts for around two thirds of French consumption. Discussions are under way to enable the southern half of France, which is currently split in two (GRTgaz South and TIGF), to benefit from a single marketplace by 2015, in order to achieve a satisfactory level of liquidity.

The network code on balancing sets out market-based balancing rules

The European model also establishes the principle of market-based transmission network balancing. This guideline is set out in the network code on balancing, which must be definitively adopted in 2013. It is about encouraging gas transporters to compensate for imbalances between gas inputs (imports, withdrawals from underground storage facilities, etc.) and outputs (consumption of end customers, injections into storage facilities, transits to adjacent countries etc.) on their networks by purchasing or selling gas on organised short-term markets. This will lead them to reveal the daily cost of balancing. It will also serve to ensure that providers balance their portfolios by using the gas markets.

This guideline is currently being implemented in France, with moves being made in this direction by GRTgaz in 2006 and TIGF in 2010.



◂ *Projected organisation of the European gas market:*
– *Marketplaces are consolidated to become larger in size.*
– *Gas transmission capacities upon entry into a zone, and capacities upon exiting a neighbouring zone, are sold together.*

Source: CRE

Gas supply at the European border

Grouped transmission capacities

2.3. Measures are being taken to facilitate gas circulation from one market zone to another

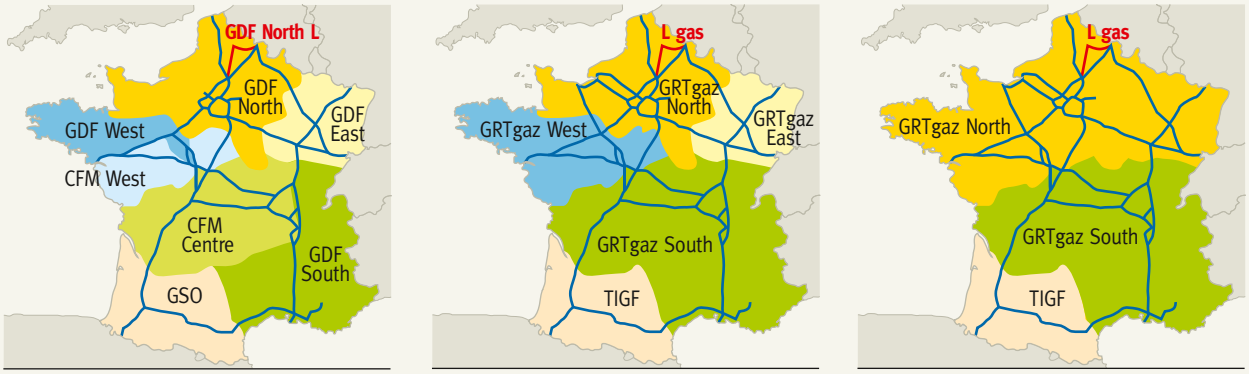
Interconnection capacities to be grouped and allocated by auction

One of the main proposals of the target model for the European market concerns products relating to transmission capacity at interconnections. The idea is to develop a model called «hub to hub» that sees the European market as a set of entry-exit zones joined together by interconnections which are simple to access. The capacities should come grouped together (bundling), which means offering products that have exit capacity in one zone and the corresponding entry capacity in the neighbouring zone.

Historically, the allocation rules could be very different on either side of the border points, causing inconsistencies in the allocation rules and a lack of clarity which hampered the development of cross-border trade. The network code on capacity allocation, which should be adopted in the first half of 2013, therefore plans to make transmission capacity bundling compulsory at the borders, as well as creating standardised allocation rules (capacity products marketed, marketing timetables, etc.). These products will be sold at auction under terms which are the same throughout Europe. The CRE and system operators are preparing for the application of these changes in France, through a close dialogue with market players and regulators and operators in neighbouring countries.

Discussions are under way to enable the southern half of France, which is currently split in two (GRTgaz South and TIGF), to benefit from a single marketplace by 2015.

▾ *A gradual merging of the French balancing zones.*
On 1 January 2009, the merging of the three West, North and East zones of GRTgaz into one big zone called GRTgaz North simplified market access and improved players' ability to choose between various gas sources.



On 1 January 2003 | On 1 January 2005 | On 1 January 2009

Pilot projects are also planned in order to anticipate the implementation of the network code. Among the initiatives launched in 2012, transporters in North-West Europe, including GRTgaz, have come together to create a platform for capacity allocation, PRISMA. This platform will manage the auctions for all interconnections operated by its members. Ultimately, it aims to become the single allocation platform for the European Union. The priority of the CRE is for PRISMA to quickly become the allocation platform for all capacities at interconnections in France, especially the interconnection with Spain.

Further work is under way on the interoperability of networks, management of contractual congestion at interconnections, and tariff structures applying to the transmission networks. The main concern of these texts is to promote the integration of national markets by facilitating access to interconnections.

The CRE has been very busy with this task in 2012, including co-editing the framework guidelines on capacity allocation and gas transmission tariffs.

3. THE FRENCH MARKET IS EVOLVING IN LINE WITH THE EUROPEAN TARGET MODEL

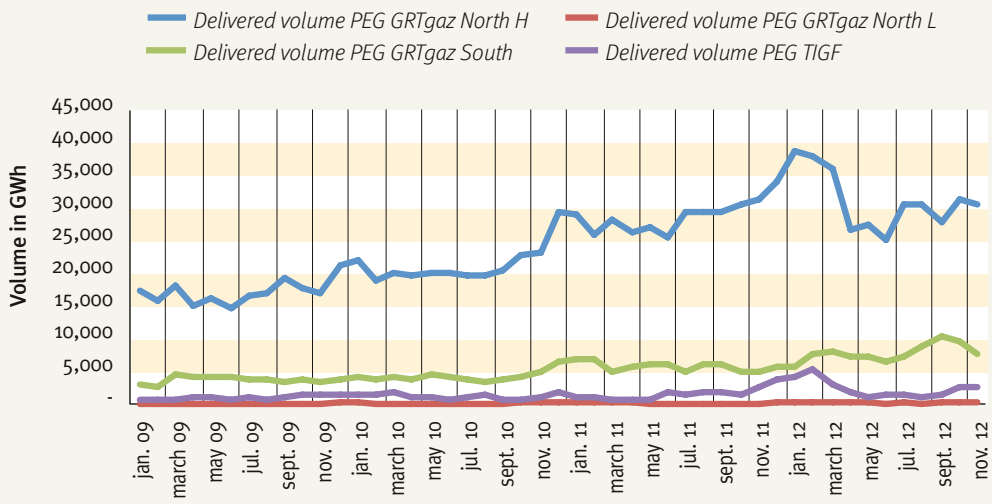
3.1. The creation of the big North zone in 2009 marked an important first step in simplifying market access

The French market now has three balancing zones, after having successively had eight until 2003 and then five in 2005. On 1 January 2009, the merging of the three West, North and East zones of GRTgaz into one big zone called GRTgaz North simplified market access and improved players' ability to choose between various gas sources. This merger brought the PEG North to a size that now gives it greater attractiveness

Changes in the number of active shippers on the French gas transmission networks

	2009	2010	2011	S1 2012
Total number of active shippers	*50*	*70*	*82*	*80*
Including traders-financial players	*8*	*10*	*16*	*15*

Source: GRTgaz, TIGF - Analyse CRE



◂ *Change in negotiated delivered gas volumes, in GWh, from January 2009 to November 2012 (monthly data).*

Source: Brokers, Powernext Analysis: CRE

and an increased level of liquidity, thus helping improve supply security. In addition, the wholesale and retail markets and competition have expanded considerably in this area, allowing consumers, including those in industry, to benefit from competitive prices.

3.2. The French market is not as well organised as it could be

Market conditions in the south of France must be improved

The French gas market now has three wholesale marketplaces, called gas exchange points (point d'échange de gas - PEG): the PEG North and South on the GRTgaz network, and the PEG TIGF.

PEGs are essential for suppliers to the retail market. They enable them to choose between different sources of gas so their customers can benefit from the competitive ones. They are a supplement to the supply contracts signed directly with producers to supply their customers. With this system, suppliers can also balance their portfolio in the short term by buying or selling gas according to their needs.

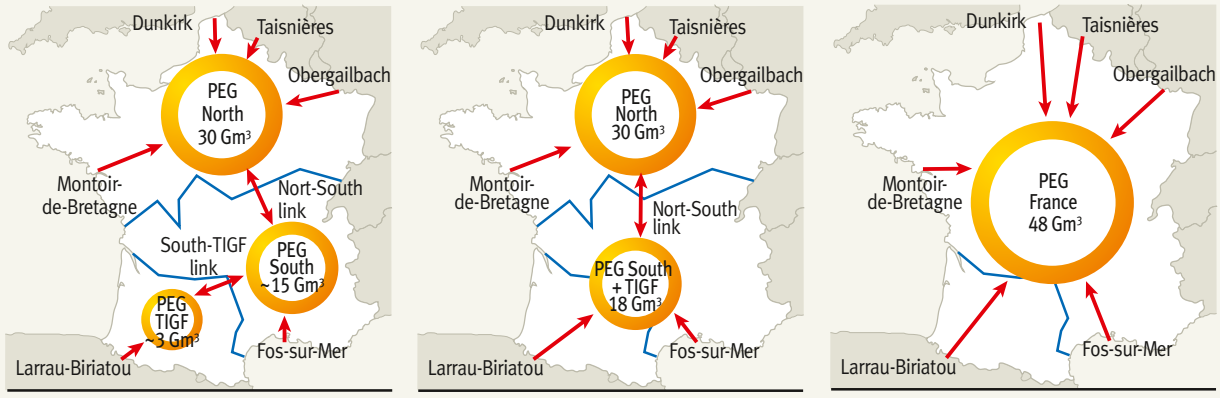
While the PEG North enjoys an adequate level of liquidity and competition in both the wholesale and retail markets, the GRTgaz South and TIGF PEGs remain illiquid. Therefore, consumers, including those in industry, do not benefit from such attractive market conditions as those at PEG North. The structuring of the French market into several marketplaces is linked to the existence of physical congestion in the gas transmission networks. Thus, significant investments were made by GRTgaz to create the North Zone on 1 January 2009 and streamline the trade in this part of the country. The considerable investments made by GRTgaz and TIGF to develop interconnections with Spain removed the congestion between their networks. However, significant physical constraints still exist between the North and South zones of GRTgaz.

€6/MWh

In 2012, a significant price difference was noted between the North zone of GRTgaz and the South zones of GRTgaz and TIGF. It exceeded the €6/MWh threshold several times during the 1st half of 2012 (versus €0.16/MWh on average in 2011).

▾ *In 2013, the CRE will carry out a cost-benefit study to define the optimal level of investment needed to create the PEG France.*

Source: CRE

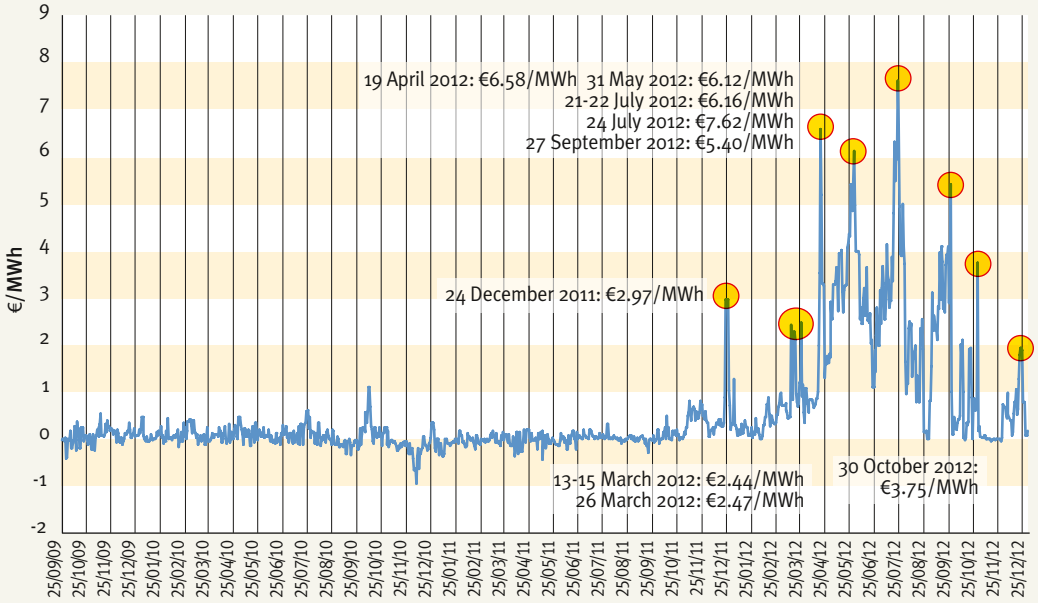


In July 2012, the CRE launched an investigation into the conditions of price formation on the gas market in the south of France.

This congestion is mainly evident from north to south, when the price of LNG, which is an important part of the supply in the south of France, is higher than that of imported gas from land entry points located to the north of the territory. These constraints sometimes lead to significantly higher prices in the south of France in comparison to the north. Thus, in 2012, a significant price differential was found between the North zone of GRTgaz and the South zones of GRTgaz and TIGF. This gap increased from €0.16/MWh on average in 2011 to €3/MWh during the second quarter on Powernext Gas. It even exceeded the €6/MWh threshold on several occasions during the first half of 2012 *(see Graphic p. 87)*.

Temporary measures should improve the operation of the gas market in the south of France

Parallel to this investigation, the CRE is working on measures to improve the operation of the gas market in the south of France. Thus, in its deliberation of 15 November 2012, it defined the rules on marketing transmission capacity between the North and South zones of GRTgaz, taking into account the physical delivery commitments of shippers in the south of France, starting from 1 April 2013. These rules have been established on a temporary basis, in order to limit the exposure of suppliers with delivery commitments in the GRTgaz South and TIGF zones to considerable and unpredictable economic uncertainty, pending the implementation of auctions in 2014. Finally, in its deliberation of 19 July 2012, the CRE asked GRTgaz to study measures or contractual tools that could be tested from 2013 onwards as part of the Concertation Gaz, in order to relieve the pressure in the south of the territory.



▸ *A spot price disconnect between the PEG North and PEG South since mid-April, reaching historical levels.*

Source: Indices EOD de Powernext Analysis: CRE

3.3. The CRE has set the goal of a single marketplace in France in 2018

The CRE wishes to continue with marketplace integration in order to improve the operation of the gas market, especially in the south of France.

Guidelines set out by the CRE in its deliberation of 19 July 2012

The work of the CRE in 2012 was supported by dialogue with market players at two workshops, a round table and a public consultation. They reached a broad consensus in favour of consolidating the PEGs, with the main aim being to create a single PEG France by 2018 and an intermediate step of merging the GRTgaz South and TIGF PEGs on 1 April 2015.

The creation of a single PEG South will improve the operation of the gas market in the south of France for the benefit of end consumers, through pooling and competition between gas sources and tools of flexibility in this region. The new gas transmission tariffs called «ATRT5», set by the CRE in its deliberation of 13 December 2012, provide for the implementation of this change on 1 April 2015. Studies and additional work will be required in 2013 to define the operational modalities and tariff adjustments that will help the single marketplace function as effectively as possible.

Creating a single marketplace in 2018 will require additional investment, in addition to that already set aside for the doubling of the Rhône artery (Eridan project) and the Arc de Dierrey. The Val de Saône project (doubling of the Burgundy artery), estimated by GRTgaz at about 600 M€, will significantly reduce physical congestion between the north and south of its network. This investment will be complemented by market mechanisms, to provide gas at certain points of the network, in order to reduce the residual congestion. In 2013, the CRE will carry out a cost-benefit study to define the optimal level of investment needed to create the PEG France.

◂ *LNG carrier at the terminal in Fos Cavaou.*

© GDF SUEZ G. Leimdorfer

▸ *Aerial view of the LNG carrier in Montoir-de-Bretagne..*

© GDF SUEZ A.Bocquel

4. NEW TARIFFS FOR THE USE OF THE NATURAL GAS TRANSMISSION NETWORKS OVER THE NEXT FOUR YEARS

In its deliberation of 13 December 2012, the CRE set the new ATRT5 tariffs, in accordance with the provisions of article L. 452-1 and the following articles of the Energy code, which give it the power to rule on tariff changes after consultation with the Supreme Council of Energy. These tariffs will come into force on 1 April 2013, for a period of around four years.

To establish these new tariffs, the CRE considered legislative and regulatory developments related to the third energy package, that is to say, the independence requirements placed upon the transmission system operators (TSO) relating to the implementation of the ITO model, the Gas target model adopted by the European regulators and the future network code on capacity allocation (CAM), as well as the guidelines on congestion management (CMP) that French transmission system operators will be required to follow.

To prepare for the ATRT5 tariffs, the CRE conducted an extensive consultation involving all players. To this end, it organised operator hearings, as well as two round tables, one on the development of the marketplaces, and the other on the system operators' tariff lists. It also held five public consultations about:

– the creation of a single GRTgaz North balancing zone for H and L gases;
– the development of gas marketplaces in France;
– the intraday flexibility service on the GRTgaz transmission network;
– guidelines on the regulatory framework, tariff structure and TSO services;
– guidelines on the TSOs' tariff levels and lists.

Finally, the CRE has taken account of the energy policy guidelines set by the Minister of Ecology, Sustainable Development and Energy on the economic efficiency of the tariff framework, consistency with the future European network codes, the integration of national natural gas marketplaces, supply security and the role of underground storage, the development of biomethane injection in the natural gas networks and promoting the use of natural gas.

New tariffs to access the regulated LNG terminals

LNG terminals are port infrastructures that perform regasification of liquefied natural gas (LNG) brought by ship from production sites, and inject the gas into the transmission networks for delivery to the consumption areas.

In 2012, the CRE set new tariffs for access to regulated French LNG terminals, called ATTM4, which come into force on 1 April 2013 for a period of four years.

The new rates have been set in an unfavourable context for European LNG terminals. Indeed, strong Asian demand for LNG since the Fukushima accident in March 2011 led shippers to export more to that part of the world. This resulted in a significant decrease in the use of French terminals, particularly in Montoir-de-Bretagne, which saw a 56% decrease in emissions in the first half of 2012 compared to the same period in the previous year. However, this did not impact on operators' income because of the clause requiring payment for subscribed capacity, whether used or not (ship-or-pay). In contrast, fewer capacity subscriptions partly explain the increase in tariffs set by the CRE.

The ATTM4 sets the tariff lists for the next four years, with a 4% increase for the Montoir terminal and a 12% increase for the Fos Cavaou terminal. The tariff list for the Fos Tonkin terminal, fixed for two years, is increasing by 10%. This list will be updated halfway through the period, to take account of any decisions to carry out upgrades at the Fos Tonkin terminal after 2020. These tariff increases are lower than those requested by operators, respectively 13%, 24% and 15% for the Montoir, Fos Cavaou and Fos Tonkin terminals.

Furthermore, the ATTM4 introduces a decrease in the average weighted cost of capital, set at 6.5% instead of 7.25% as in the ATTM3 tariff, while maintaining the 2% premium specific to LNG activities. It introduces an incentive mechanism to regulate the cost of investments, and an increase in the clause requiring payment for subscribed capacity, set at 100% versus 95% in the previous ATTM3 tariff. ■

4.1. The CRE has strengthened the incentive-based regulatory framework for transmission tariffs

Article L.452-3 of the Energy Code states that the deliberations of the CRE on usage rates for the natural gas transmission networks *«[…] may provide a multi-year framework for tariff changes as well as appropriate short and long-term incentive measures to encourage operators to improve their performance, in particular in the areas of service quality, integration of the internal gas market, supply security and research into ways to improve productivity.»*

In accordance with these provisions and in the light of all the preparatory work mentioned above, the CRE decided to renew the existing regulatory framework, making some changes and additions, to encourage transmission system operators to improve their efficiency over a period of four years, both in terms of cost control and the quality of the service provided to users.

Incentive regulation in the area of operating charges

The CRE has defined an annual charge development path for each transmission system operator over the 2013-2016 period. Starting from the level chosen for 2013, this trajectory is based on inflation and an annual change coefficient that includes a productivity target relating to a constant scope of activity during the tariff period covered by the ATRT4 tariffs.

Work continues in the area of gas distribution

New tariffs for the LDCs

As with the tariffs for the use of the GrDF's public natural gas transmission networks in 2012, the CRE is working on new ATRD4 tariffs, applicable as of 1 July 2013, for local distribution companies (LDCs).

This decision planned for March 2013 will set eight specific tariffs for LDCs that have separate accounts, and a common tariff for the other fourteen.

The main aims of these tariffs will be to:

- *ensure operators' costs are controlled, in order to limit the increase in tariffs for the use of the LDC networks, which account for around 25% of the final price of gas paid by a given customer with gas heating who consumes 17 MWh;*
- *develop the tariff framework in accordance with the one defined in the GrDF's ATRD4 tariff, to reinforce performance incentives and consistency among distribution system operators' practices.*

On 13 December 2012, the CRE launched a public consultation with market players, concerning in particular the assessment of current tariffs (ATRD3) and the LDCs' requests for future tariffs (ATRD4). After a second public consultation on tariff levels, the CRE forwarded its draft deliberation to the Supreme Council of Energy for comments on 5 April 2013.

Changes to the DSOs' ancillary service catalogues

The energy code has extended the powers of the CRE in the area of tariff-setting for ancillary services by gas distribution system operators. These ancillary services, separate from the basic services that are covered by the ATRD, are listed in a catalogue and are billed on an individual basis. In its deliberation of 28 June 2012, following a public consultation, the CRE defined the principles for designing and pricing these services, as well as changes in the level and structure of the service catalogues which will be applicable from 1 September 2012. It therefore worked on homogenising these catalogues:

- *by defining a single structure for all the natural gas DSOs' service catalogues;*
- *by harmonising the services essential to the correct operation of the market (new connections, chasing unpaid bills, special readings excluding supplier changes, supplier changes and disconnections);*
- *by reconciling the terms governing changes to service prices with those of GrDF or ERDF (price indexation formulas and dates of changes).*

The CRE is continuing with this approach. It thus intends to deliberate in April 2013, following the public consultation launched in December 2012, on the upcoming changes to the service catalogues, which should be applicable from 1 July 2013 or at the same time as the changes made to the electricity service catalogues. ■

The additional productivity gains that could be achieved by each transmission system operator over and above their trajectory will be retained entirely by them, whereas they could only keep 50% under the ATRT4 tariff. Symmetrically, any additional costs will be borne in full by the operators. This way, the CRE hopes to strengthen the incentive for operators to control their costs. The CRE has also introduced a rendezvous clause at the end of two years, to adjust the trajectory of GRTgaz and TIGF's net operating charges for the years 2015 and 2016, upwards or downwards, when certain conditions are met.

Incentive regulation in the area of service quality

The CRE monitors the operators' performance in terms of quality of service to network users by analysing quantitative indicators. Important indicators for the correct operation of the market are subject to financial incentives, bonuses or penalties, depending on whether or not operators achieve the objectives set by the CRE.

In gas, the CRE has seen a significant improvement in service quality since the establishment of the mechanism in 2008, which is all the more significant since the objectives have been gradually strengthened. Under the ATRT5, the CRE decided to strengthen the system by introducing new indicators for the data necessary for balancing the network, provided to the suppliers by the system operators data[2].

2 – The CRE's third report on incentive regulation of service quality among natural gas and ERDF system operators was published in May 2012 (see Appendices p. 138).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The Gazpar project

In 2007, GrDF began to work on defining the features and technical specifications of its smart metering project aimed at its 11 million customers, whose consumption is recorded every six months. In a European context (Directive on Energy Efficiency 25 October 2012) and a national context (debate on energy transition and the Brottes law), where control of energy demand is a major challenge, the smart metering project could be an efficient tool which may be useful in the schemes which are currently being defined. After an initial phase of testing and techno-economic analysis conducted by the CRE and GrDF, in consultation with market players, this project called GAZPAR entered a new phase in mid-2011: the design and preparation of a possible decision to deploy these meters will take place in 2013.

In accordance with article L.453-7 of the Energy Code, the start of the general deployment phase, planned for late 2014, will require a favourable decision from the relevant ministers, who will need to intervene in mid-2013 in response to a CRE proposal. ■

Gazpar

Incentive regulation in the area of investment

An incentive to control the costs of investment programmes is also introduced in the ATRT5. It includes, firstly, an incentive to make the necessary investments to improve the operation of the French market and its integration into the European market and, secondly, an incentive to control the costs of investment projects.

Incentives for investment

In ATRT4, an additional payment of 3% over ten years was applied to investments that helped in creating new transport capabilities on the main network or reducing the number of balancing zones. For ATRT5, CRE has decided to maintain the investment incentive scheme, but will only grant this premium for the two major projects which have yet to be decided upon.

The first project, the doubling of the Burgundy artery, is necessary in order to achieve the merging of the PEG North and South zones of GRTgaz.

The second, the decentralised odorisation of natural gas, will allow a physical flow from France to Germany of about 100 GWh per day. Indeed, the current differences in practice in the area of odorisation between France and the other countries of north-western Europe are an obstacle to physical gas flows from France to its neighbours. This project will enable France to comply with European Regulation (EU) No 994/2010 of 20 October 2010 relating to supply security and the ACER draft framework guideline on the interoperability of gas transmission networks.

Incentives for controlling investment costs

The transmission system operators must control the costs of their investments. A bonus/penalty system encourages them to keep to the budget estimates approved by the CRE. This mechanism, initially used for the connection to the Dunkirk terminal, has been extended through the ATRT5 to all major TSO projects.

For other investment projects, quantitative indicators are put in place to monitor and analyse developments in costs.

▸ Construction site for the Béarn artery. Opened in March 2013 by TIGF, this new underground gas pipeline connects the gas well in Lacq (64) to the storage station in Lussagnet (40). 57 km long, with a capacity of 14 million m^3 per day, it will double up with the existing pipeline and enable the TIGF to increase capacity along the west corridor between France and Spain. The costs of implementing this project are covered by TIGF's transmission tariff.

© TIGF, L. Hautecœur

4.2. The CRE has set tariffs in a context characterised by the pursuit of sustained investments and implementation of the third package

The ATRT5 amount initially requested by GRTgaz resulted in an average tariff increase of 17.4% in 2013 and then an average annual increase of 4.5% between 2014 and 2016 in current euros. TIGF requested an average tariff increase of 18.6% in 2013 and an average annual increase of 7.8% between 2014 and 2016 in current euros.

For the ATRT5, the CRE has set smaller tariff increases than those requested by the operators

Audits by the CRE on operators' estimated charges operators allowed it to appreciate the level of operating expenses required to cover the costs of an efficient operator and set productivity targets for a scope of activities similar to that defined in the previous tariff period.

Consequently, the CRE set the following rate increases for ATRT5:

– For GRTgaz, an increase of 8.3% in 2013 and then an increase, in current euros, of 3.8% per year[3] from 2014;
– for TIGF, an increase of 8.1% in 2013 and then an increase, in current euros, of 3.6% per year[4], from 2014.

The tariff increases set by the CRE are mainly explained by:

– rising capital charges linked to the implementation of significant investments (doubling the Hauts de France artery, Arc de Dierrey and ERIDAN project for GRTgaz, and GIRLAND and Euskadour projects linked to the development of interconnections with Spain for TIGF);
– rising energy costs due to the rising price of gas and electricity and the increase in drive power consumption in a context of lower LNG supplies;
– the transposition of Directive 2009/73/EC, which requires that transmission system operators have access to the means necessary for their activities and implement the European network codes, and sets new safety regulations, including those relating to the multi-fluid decree;
– higher taxes and social contributions, especially with the entry into force of the flat-rate tax on network companies, the increase in the rate of social contributions and the broadening of the basis on which these are calculated.

3 – With a 2% per year inflation hypothesis

4 – With a 2% per year inflation hypothesis

Claude Conrad,

President of the Oil and Gas Commission of the Union of Energy-using Industries (Union des industries utilisatrices d'énergie - UNIDEN)

The UNIDEN defends the interests of energy-consuming industries in France. Its 41 members represent more than 70% of industrial energy consumption in the country. It has regular contact with the CRE within the Concertation Gaz, chaired by GRTgaz and TIGF, which has examined the rules on access to the natural gas transmission networks since 2008. Here, the President of its Oil and Gas Commission, Claude Conrad, gives his analysis of the situation of the gas market in France and Europe.

What is your view of European policy in the gas sector? What action does the UNIDEN take at this level?

European gas policy has taken a positive step forward with the third package. Ensuring that Member States' regulations are consistent with network codes is a fundamental stage of the process. It's always good to remember that the main aim is competitiveness among energy-consuming businesses in Europe. Europe must now collectively think about how to make its supply sources more competitive (special contracts with Russia? Shale gas?).

Our work within IFIEC Europe, which represents the interests of industrial energy-consuming companies in Europe, has enabled us to regularly reflect upon the content of the network codes. Therefore, we are sorry that the choice has been made to allocate interconnection capacity at auctions, which can only result in increased costs to consumers. Apart from that, some supply issues need to be improved. For example, giving the same level of priority to transit capacity within a country (for the benefit of another country) and delivery capacity will soon cause problems in supplying industrial sites in "corridor countries" like France, unless we make transit capacity conditional and therefore interruptible (like in Germany).

What is your assessment of the opening up of the French gas market to competition?

Simplifying the conditions of access to infrastructure has enabled many industrial companies to choose their own mode of transport and develop flexibility in their sourcing and consumption, in short, to gain some independence. There is still room for progress, particularly in terms of access to storage (is its high cost related to the negotiated access regime?) and LNG terminals (services ill-suited to industrial consumers).

The CRE's efforts played a structuring role in allowing the market to gradually open up to competition and to cope with changes in EU rules. Dialogue between the players, through the Concertation Gaz which it put in place, was generally successful. Although industrial consumers will sometimes feel a bit isolated amongst all the suppliers/traders. However, we note that the CRE is concerned about ensuring that everyone's interests are taken into account.

In your opinion, what are the future challenges for the French gas market, and what do you expect from the regulator?

The problem of high gas prices in the south of France is at the heart of our concerns. This is related to the diversion of many cargoes of LNG to the Asian market, where gas is more highly valued, since the Fukushima accident. It will prove extremely damaging to industrial sites in the south of France if this continues. It is not normal for industrial companies to suffer the consequences of structural LNG sourcing in the southern territory.

The CRE and governments must act with pragmatism and voluntarism so that the priority rightly given to industrial consumer sites is taken into account as soon as possible. As such, we are particularly interested in the results of the investigation by the CRE on price formation in the south. We will also ensure that the cost-benefit study on doubling the Val de Saône artery demonstrates the value of this investment for industrial consumers. ■

These increases were partially offset by the following factors:

- increased capacity subscriptions, mainly due to improved interconnection capacity;
- the productivity targets for both system operators, increasing during the ATRT5 (+0.25% per year from 2014) which make it possible to influence changes in prices.

Insofar as transmission tariffs represent about 6% of their total gas bill, these increases would lead to an increase of about €0.36/MWh including tax, or about 0.5% of the final bill of an average consumer with gas heating. ■

DEVELOPING RENEWABLE ENERGY

The climate and energy package, adopted in 2008, set France the target of deriving 23% of its final energy consumption from renewable sources by 2020. The contribution of the electricity sector to the achievement of this objective is detailed in the multi-year plan for investment in electricity generation (PPI).

While decision-making power - setting conditions and prices, launching calls for tenders, adopting the list of specifications and selecting winners - belongs to the Minister for Energy, the CRE's role is restricted to implementing calls for tenders in the field of renewable energy and issuing an opinion on the planned tariff levels. It is also committed to ensuring that the development of electricity networks helps prepare for the integration of a massive increase in decentralised renewable energy production.

As part of its mission to monitor the wholesale markets, the CRE is attentive to the impact of the development of renewable energy on electricity prices.

1,657 bids

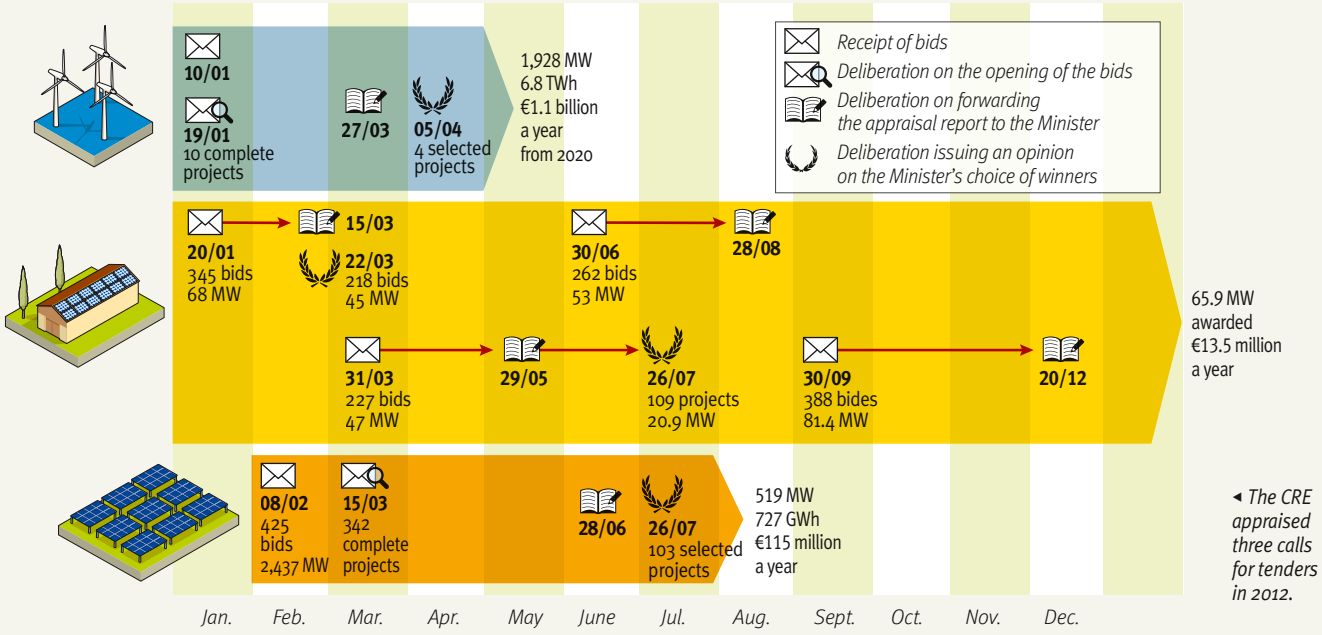
The CRE examined 1,657 bids in 2012 in response to calls for tenders relating to photovoltaic installations and offshore wind turbines.

KEYWORDS

Support mechanisms for renewable energy sources

Integration of renewables into the electricity networks

Price of green energy



◂ *The CRE appraised three calls for tenders in 2012.*

1. THE CRE IMPLEMENTS CALLS FOR TENDERS AND ISSUES OPINIONS ON RENEWABLE ENERGY TARIFFS

To promote the development of electricity generation from renewables, the French public authorities can use two economic instruments.

– The obligation to purchase, requiring the incumbent suppliers to buy energy obtained from renewable sources at a purchase price guaranteed for fifteen to twenty years, higher than the market price. Tariffs are set for each sector by ministerial decree after consultation with the CRE.

– Calls for tenders, after which the owners of the chosen projects benefit from a contract to purchase their product over a period of fifteen to twenty years at the price stated in their tender. Article 311-10 of the Energy Code states that the government can take this measure when production capacity is unable to meet the PPI targets. Calls for tenders can set the amount of renewable energy that will benefit from public support ex ante, and prices can be adjusted to the specific features of each installation, if the conditions of healthy competition are met.

1.1 Three calls for tender were appraised by the CRE in 2012

In 2012, the CRE appraised bids submitted in response to three calls for tenders, with the aim of procuring a total of 3,660 MW of power:

– call for tenders for offshore wind farms to produce electricity in mainland France (EEM call for tenders), for 3,000 MW;

– call for tenders to build and operate photovoltaic installations on top of buildings with a peak power level between 100 and 250 kWp (PV 100-250 call for tenders), for 210 MW;

– call for tenders to build and operate installations to produce electricity from solar energy, over 250 kWp of power (PV 250+ call for tenders), for 450 MW.

These calls for tender aim to secure at least twice as much installed power as the eight calls for tenders organised between 2000 and 2011.

In one month (between 10 January and 8 February 2012), the CRE received 789 bids. After checking they were all complete, the CRE assessed the bids according to a set of criteria defined in the list of specifications:

Calls for tenders for electricity generation facilities

Article 8 of Directive 2009/72 of 13 July 2009 on the electricity markets requires that in organising calls for tenders for new capacity, Member States shall designate an authority or a public or private body which is independent from the activities of production, transmission, distribution and supply - this may be a regulatory authority such as the CRE, or another organisation - to be responsible for the organisation, monitoring and control of the tender procedure.

The respective roles of the CRE and the Minister of Energy in the process of tendering for electricity generation facilities are defined by Decree No. 2002-1434 of 4 December 2002. First, the Minister of Energy decides on the organisational principles of each call for tenders: it defines the conditions in principle, and then contacts the CRE on the basis of these. The CRE prepares a list of specifications and sends it to him within the specified timeframe. The Minister decrees the final list of specifications. Since Decree No. 2011-757 of 28 June 2011 amending the Decree of 4 December 2002 on the procedure for tendering for electricity generation facilities, the Minister may amend the specifications proposed by the CRE without having to contact it again. The call for tenders is published in the Official Journal of the European Union. The CRE also publishes it on its website.

During the bid preparation phase, the CRE formulates and publishes answers to questions asked by the candidates, which must be put in writing.

The CRE receives the bids and checks that those which are received before the deadline set in the list of specifications are complete. Incomplete applications are not appraised. The CRE notifies bidders in this case. The CRE appraises the complete bids. It sends the Minister an appraisal sheet for each of them, stating the score obtained according to the criteria defined in the list of specifications, as well as a summary report containing the bid rankings.

Finally, the Minister contacts the CRE for advice on choosing a bidder. This notice is published in the Official Journal together with the Minister's decision on the list of selected bidders. ■

– the price criterion alone for the PV 100-250 call for tenders, an "automatic" one;
– criteria such as price, environmental impact, innovation and investment in research and development (R&D) for the other two calls for tenders.

1.2. Appraising the calls for tenders enabled the CRE to gather information about the renewables sector

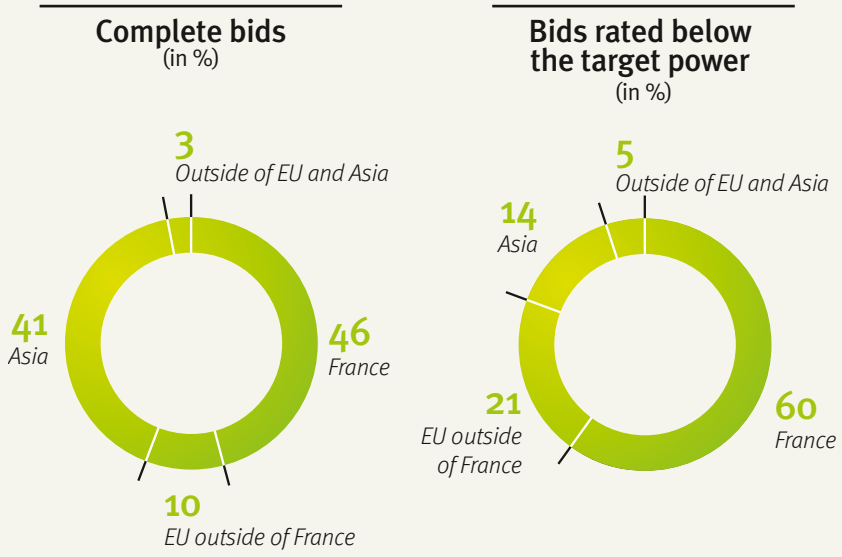
The solar sector

The high number of bids received in response to the different photovoltaic calls for tenders provided the CRE with some useful lessons, some of which go against the received wisdom on the subject.

Calls for tenders do not favour non "European" solar panels

The graphics on page 100 show the geographical origin of the photovoltaic solar panels in 85% of the bids received in response to the PV 250+ call for tenders. These are bids in which the manufacturing of the calls (which make up the modules) and the modules themselves, i.e. the photovoltaic panels, have taken place in the same geographical area. In this call for tenders, the choice of modules had an impact on the "price" criteria score, which counted for 12 points out of 30, and the "carbon footprint", which counted for 3 points. An analysis of the bids did not reveal any significant difference between the price offered by the bidders who chose modules produced in France, and bidders who chose modules produced abroad. The electricity purchase prices offered by bidders who used modules produced in Asia were in many cases higher than those offered by bidders who used modules produced in France.

The calls for tenders held in 2012 aim to secure at least twice as much installed power as the eight calls for tenders organised between 2000 and 2011.



◀ *Geographical origin of photovoltaic solar panels for 85% of bids received in response to the PV 250+ call for tenders.*
Source: CRE

The CRE also analysed data on investment costs provided by bidders during the third and fourth periods of the PV 100-250 call for tenders. This data revealed no significant difference in investment costs between facilities where the photovoltaic cells and modules had been manufactured within the European Economic Area (37% of projects) and the others.

Call for tenders relating to photovoltaic installations from 100 to 250 kWp	***3rd period***	***4th period***
Investment cost for installations whose cells and/or modules were made outside the EEA (€/Wp)	*2.36*	*2.14*
Number of projects	***124***	***177***
Investment cost for installations whose cells and modules were made inside the EEA (€/Wp)	*2.45*	*2.04*
Number of projects	***73***	***143***
Additional investment cost for installations whose cells and modules were made inside the EEA (installations meeting the conditions for increases set out in the decree of 7 January 2013)	*+ 3.7%*	*- 4.9%*

Tracker technology is already competitive

Part of the PV 250 + call for tenders focused on the use of ground-mounted photovoltaic solar installations equipped with devices called trackers for tracking the path of the sun *(see box, p. 102)*. This technology improves the efficiency of the plant and therefore limits the floor area used for an equivalent amount of electricity produced. The competition was significant since complete bids accounted for 617 MWp for every 100 MWp of power sought. The weighted average cost of the electricity produced in the selected bids is €173/MWh. This is about 15% higher than the weighted average price of ground-mounted power plant projects selected using mature technologies (around €151/MWh), but 10% lower than the winners' weighted average price for roof-mounted installations. It is also much lower than that of all other innovative technologies proposed in response to this call for tenders.

Storage facilities for managing intermittence are still very expensive

In areas which are not interconnected with the continental network, high levels of intermittent power can endanger the balance of the system in the event of a rapid change in output (e.g. during the passage of a cloud). The decree

◂ *Tracker technology offers a far lower cost price for the electricity produced than all the other innovative technologies proposed in response to the PV 250+ call for tenders.*
Solar farm on the Challenger site in Bouygues. Photovoltaic panels which turn towards the sun.
© J.-L. Dias

of 23 April 2008 set an acceptable limit for intermittent power of 30% of total active power flowing on the network. This limit had already been reached or was about to be reached in several areas as the terms and conditions of the PV 250 + call for tenders were being drafted. This is why the list of specifications for the PV 250 + call for tenders required the photovoltaic installation to be coupled with a storage facility in these zones.

With a weighted average price of €414/MWh, the electricity produced by installations with storage proves almost three times more expensive than electricity produced by ground-mounted plants with mature technologies. Although these two prices are not directly comparable (because the cost of electricity generation, using equivalent technology, is higher in non-interconnected areas than on the mainland, mainly because of transport costs and labour), it appears that managing intermittency by using storage facilities still incurs a significant additional cost.

The procedure for calls for tenders in successive periods lacks efficiency from a price disclosure point of view

The PV 100-250 call for tenders is organised following the "accelerated" procedure as defined in decree no. 2002-1434 of 4 December 2002. Consequently, the only scoring criterion is the electricity sale price proposed by the bidder. This call for tenders is divided into seven bidding periods.

The quarterly timeframe of this call for tenders does not make it possible to ascertain the correct purchase price. The bidders are, in fact, encouraged to offer a higher price than the price allowing them to reach a normal return on the capital invested. If their offer is not accepted at this price, they have the opportunity to resubmit the same project at a later time at a different price. The stability of prices offered during the first three periods, while costs fell, illustrates this bias. The average price of projects ranked during the fourth period stood at €194/MWh, down from the average prices of the previous three periods, which remained stable at around €230/MWh.

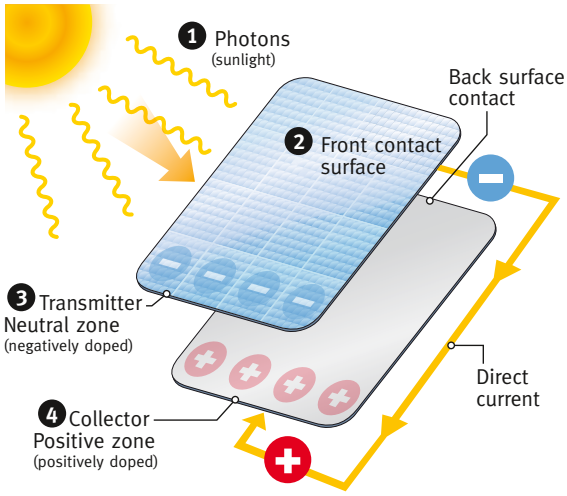
Various electricity generation technologies using radiant solar energy

*Electrical energy is generated by a **photovoltaic cell** as a result of the photoelectric effect, that is to say, the direct conversion of the energy carried by the sunlight into electricity. Photovoltaic cells are the basic components of solar panels. They consist of a semiconductor material, usually silicon. When the sun's rays hit the cell's surface, they transfer their energy to the electrons in the cell. These are then set in motion and create an electric current. The current thus obtained is proportional to the amount of light received. The direct current must be converted into alternating current by an inverter so it can be subsequently injected into the public electricity network. The cells are connected in a row to form modules which are themselves interconnected (in the form panels) in order to achieve sufficiently high voltages. The voltage provided by a crystalline silicon cell is in the order of 0.5 volts.*

Photovoltaic solar energy undergoes strong variations depending on sunlight and panel location, which has consequences on the economic and energy efficiency of the installations. The variable nature of this energy source requires it to be combined with other sources or coupled with efficient storage technologies.

*A **concentrated solar power plant** (or concentrated solar thermal plant) is a power plant that concentrates sunlight using mirrors to warm up a heat transfer fluid that then transports this heat. The heat is then transmitted to a thermal fluid. Under the effect of changes in temperature, and therefore in pressure, this fluid will activate a turbine connected to an alternator which converts this energy into electricity. This technology requires strong direct sunlight.*

*A **solar tracker** is a solar power installation based on the heliostat principle, i.e. a device to track the sun's path using mobile solar panels. This device can significantly increase the plant's production. In theory, a tracker may carry solar modules of any type (conventional photovoltaic, concentrated photovoltaic, etc.).*



The CRE also notes that the T5 purchase tariff applicable in the 4th quarter of 2012 for building-mounted photovoltaic installations with a peak power between 100 and 250 kW stood at €102.4/MWh, after six half-yearly adjustments, in application of the decree of 4 March 2011, a level far lower than the prices asked by the bidders who responded to the call for tenders.

PV 100-250 call for tenders	1st period	2nd period	3rd period	4th period
Power sought	120 MW	30 MW	30 MW	30 MW
Number of bids submitted Combined power	345 68 MWp	227 47 MWp	262 53 MWp	388 81 MWp
Number of bids ranked Combined power Weighted average price	218 45 MWp €228.80/MWh	138 27 MWp €231.50/MWh	148 30.2 MWp €231/MWh	143 30.9 MWp €194/MWh
Number of bids selected- Combined power Weighted average price	218 45 MWp €228.80/MWh	109 21.3 MWp €219.80/MWh	88 18.9 MWp €220.4/MWh	143 30.9 MWp €194/MWh

◂ *Electricity consumed in non-interconnected zones must be produced on site. Base production remains carbon-heavy (oil and coal), although renewables are making up an increasingly large proportion of the islands' electricity mix. Aerial view of the bagasse (biomass) and coal thermal plant at Bois-Rouge in Réunion.*

© J.-L. Petit

The offshore sector

Bids in response to the call for tenders for offshore wind farms were forwarded to the CRE on 8 February 2012. With only three different bidders involved, and only ten bids for the five open zones, the level of competition turned out to be very low. This was partly due to the very short six-month deadline for bidders to put together their tenders, in accordance with the list of specifications. The tenders submitted were appraised by the CRE using a scorecard that took account of the price before connection, worth up to 40%. This scoring criterion, however, was offset by the application of a price ceiling for each zone, although exceeding this ceiling did not lead to elimination. An alignment of the prices offered by the bidders just below or above the ceiling value was enough to make this selection criterion ineffective.

The weighted average price of the winning projects selected by the Minister of Energy illustrates this. This price is €202.3/MWh, representing an average price before connection of €187.4/MWh, while the weighted average ceiling price set by the list of specifications is €187.7/MWh. On 8 January 2013, the CRE was contacted by the Minister of Ecology, Sustainable Development and Energy and apprised of the terms of a new call for tenders for offshore wind farms. Despite the very tight deadline it was given to draft a list of specifications, it considered it necessary to conduct a consultation with players involved in this project, to help improve the scheme. The CRE submitted a draft list of specifications to the Minister on 14 February 2013. The call for tenders was published in the Official Journal of the European Union on 16 March.

The biomass sector

The development of the biomass sector is a result of the four calls for tenders issued in 2003, 2006, 2008 and 2010. Indeed, installations operating under the purchase obligation scheme only accounted for 9.4 MW at the end of 2011, while 192.3 MW obtained through a call for tenders were in service on 1 July 2012 (24% of the power obtained through the first three calls for tenders).

More than seven years after the winners of the first call for tenders were selected, only 36% of the power obtained was installed. The completion rate of the second call for tenders should be similar. The low completion rate was mainly due to the loss of markets originally envisaged for heat, and the difficulties encountered by

applicants in securing a supply of biomass that met the constraints set by the list of specifications. It is still too early to judge the success of the third and fourth calls for tenders.

1.3. The CRE issued five opinions on draft decrees setting purchase tariffs in 2012

In 2012, the CRE was contacted about several draft decrees on tariffs, some of which were not published:

- deliberation of 17 January 2012 issuing an opinion on the draft decree setting the terms of purchase for electricity generated by superimposed photovoltaic installations in cyclone risk zones (decree of 3 April 2013);
- deliberation of 10 May 2012 issuing an opinion on the draft decree relating to a 10% increase in the terms of purchase for electricity generated by installations using radiant solar energy, of European origin, in relation to the tariff set by the decree of 4 March 2011 (text not published);
- deliberation of 27 September 2012 issuing an opinion on the texts providing a framework for the dual use of biogas (injected biogas and biomethane) (decrees and order of 27 February 2013);
- deliberation of 20 December 2012 issuing an opinion on the draft decree relating to the 10% increase in the tariffs for electricity generated by installations using radiant solar energy, of European origin (decree of 7 January 2013);
- deliberation of 20 December 2012 issuing an opinion on the draft decree amending the decree on photovoltaic tariffs of 4 March 2011 (decree of 7 January 2013).

Given the development of the photovoltaic sector since the entry into force of the decree of 4 March 2011, and after calculating the rates of return generated by the current tariffs, the CRE did not deem it necessary to raise the tariff level, or to award a bonus to installations using photovoltaic components of European origin. The opinions of the CRE are based on a thorough study of the development of the sector, which was published[1].

In its deliberation of 20 December 2012 issuing an opinion on the amendment of the decree of

1 – The two deliberations of 20 December 2012 are available on the CRE's website.

◂ *Given the development of the photovoltaic sector since the entry into force of the decree of 4 March 2011, and after calculating the rates of return generated by the current tariffs, the CRE did not deem it necessary to raise the tariff level, or to award a bonus to installations using photovoltaic components of European origin.*
Connecting a photovoltaic installation in Venu (Alpes-Maritimes).

4 March 2011, referring to its deliberation of 9 October 2012 on the proposal for public electricity service charges and the contribution per unit for 2013, the CRE noted that *"it is clear from the analysis of photovoltaic contracts submitted for compensation for the year 2011 that 98.5% of the contracts benefit from a building integration bonus, which enables them to obtain a more advantageous tariff of up to €580/MWh against €420/MWh for simplified building integration. Given the demands of building integration, it cannot be ruled out that some of these contracts may be fraudulent. Bidders need only make a simple statement on their honour to benefit from the building integration bonus."* Instances of fraud have in fact been reported to the CRE, which has informed the Directorate General for Energy and the Climate. Moreover, a study of declared purchase volumes suggests that some installations' declared photovoltaic power does not always correspond to the power actually installed, the operating hours calculated on the basis of the theoretical data being much higher than those observed for installations located in the same production zone.

Support mechanisms for renewables in the United Kingdom and Germany

The development of green energy in Europe relies on government support policies that create a framework either for the price of energy from renewable sources, or for the volumes injected into the network and then consumed. While the majority of European countries, such as France, have established a purchase obligation mechanism for electricity generated from renewable sources under mandatory pricing and technical conditions, other incentive mechanisms have also been introduced.

Instead of acting on prices, the main mechanism for the promotion of electricity from renewable sources implemented in the United Kingdom is based on a volume requirement: electricity suppliers are obliged to prove that an increasing proportion of the electricity supplied to their customers comes from renewable energy sources. To do this, providers must acquire green certificates from renewables producers of who receive a certificate for each megawatt hour of renewable electricity generated from Ofgem, the UK regulator. If they do not reach their annual allowance, suppliers face financial penalties. These go towards a fund which is distributed to providers who have reached their goal. These two factors play a key role in the formation of the certificate price, which is an additional payment for companies who generate electricity from renewable sources. Introduced in 2002, this system enabled the United Kingdom to reach an installed capacity of 9.2 GW in 2010[1].

With an installed capacity of 51.3 GW in 2010[2], Germany introduced a new scheme to encourage producers to sell electricity from renewable sources directly on the market. The level of remuneration for producers of electricity from renewable sources who choose this option is guaranteed thanks to a management bonus that allows them to cover the cost of their direct participation in the market, and they receive compensation if the market price turns out to be lower than the guaranteed tariff they would have received under the purchase obligation scheme.

In 2010, the weighted average cost of support for electricity generation from renewable sources stood at €115.60/MWh in Germany, versus €65.63/MWh in the United Kingdom.

Whatever mechanism is chosen, the year 2012 was marked by a decline in support for electricity from photovoltaic energy in Europe. This trend is expected to continue. For example, German law now makes provision for withdrawing support for the sector, beyond a threshold of 52 GW of installed capacity. ■

1 – Department of Energy and Climate Change.
2 – EEG Statistikbericht 2010, August 2012.

Frequent changes made to operating methods to accommodate fluctuations in net demand, after unavoidable renewable generation has been taken into account, lead to additional operating costs.

2. THE DEVELOPMENT OF RENEWABLES IS INFLUENCING ELECTRICITY PRICES ON THE WHOLESALE MARKETS

In the European Union, renewable products enjoy a right of priority access to the power system. The producers of energy from renewable sources therefore sell their electricity at the purchase tariff to transmission system operators or incumbent suppliers, who then inject it into the market, regardless of supply and demand conditions that will determine the price level[2].

2.1. The development of renewables is bringing down wholesale prices

The French average spot price declined in 2012 to €46.9/MWh base rate, a decrease of 4% compared to 2011. In countries where renewable energy generation has high penetration, such as Germany, the drop in the spot price was greater, reaching nearly 17% in 2012. The inverse correlation between the injection of additional megawatts of renewable origin into the power system and lower spot prices has already been identified as one of the factors explaining the price trend in 2012. This is the case of the German market, where the drop in the spot price is estimated at €1.34/MWh for an additional supply of 1,000 MW of wind power, and €0.82/MWh for photovoltaic power[3]. Given the outlook for renewable energy generation capacity in France and energy trading with neighbouring markets with a large share of green energy in their energy mix, the effects of these price reductions could be accentuated.

To deal with the demand, electricity generation installations are mobilised by merit order, according to their marginal operating cost. The market prioritises power plants with the lowest marginal operating costs. Then, when these are running at maximum power, more expensive power plants are used, and the plants with the highest marginal operating costs are only called upon as a last resort.

2 – In the case of the green certificate which is compulsory for suppliers, green electricity which is bought by suppliers from producers is also injected into the market as soon as it is generated.

3 – BDEW, Erneuerbare Energien und das EEG: Zahlen, Fakten, Grafiken (2013).

◂ *Given the variability of renewable power generation throughout the day (depending on the wind or the sun), the production-consumption balance must be achieved using conventional technologies which are more or less flexible.*
Row of wind turbines near Ally, Haute-Loire.

© ERDF – F. Chevreau

Because the production of renewable energy does not consume fuel and operating and maintenance costs are low, the marginal operating cost is very low. For this reason, and because of the priority network access given to renewable energy[4], the increasing integration of production from renewable sources in the energy mix shifts the other means of production down in the ranking.

Wind and solar energy production can even exclude technologies with a higher marginal production cost from the merit order. This exclusion, which is generally only partial, may be total if the guaranteed renewable production capacity is higher than available production capacity at all flexible facilities. It brings spot prices down for some hours in the year.

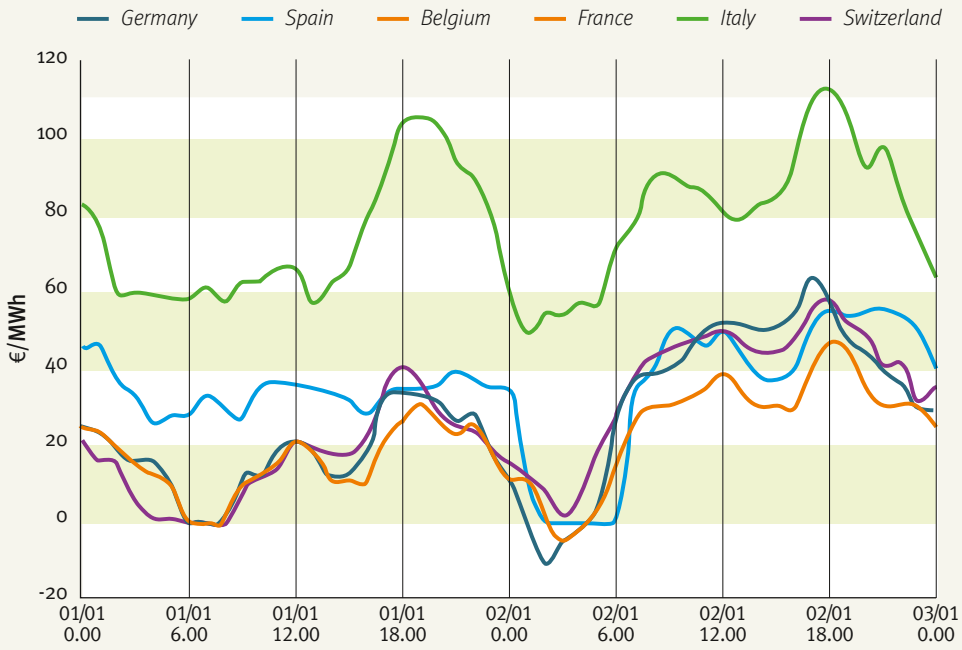
Although it does not compensate for this decrease in annual prices, an increase in prices can also be observed at certain times. Given the variability of renewable power generation throughout the day (depending on the wind or the sun), the production-consumption balance must be achieved using conventional technologies which are more or less flexible. Frequent changes made to operating methods to accommodate fluctuations in net demand, after unavoidable renewable generation has been taken into account, lead to additional operating costs. The operating costs of power plants with flexible technologies, which start and stop frequently, are spread over shorter periods of operation. To cover these costs, the operators of these plants are therefore forced to offer higher hourly tariffs. Some of these production facilities are therefore excluded from the merit order. In a scenario where there is no energy from renewable sources, for the same hour of demand, they could have offered their product at lower prices than those they are forced to charge in order to remain profitable, during certain times.

2.2. Support systems for renewables lead to the appearance of negative prices

The negative price phenomenon

Because it modifies the usual merit order for electricity generation installations, the increasing introduction of renewable power generation into the system creates difficulties for facilities

4 – Directive 2009/28/EC of 23 April 2009 (art. 16.2.b).



◂ *Hourly day-ahead prices in Europe on 1 and 2 January 2012.*
The increasing introduction of renewable power generation into the system creates difficulties for facilities with a low variable cost and rigid operating constraints, like coal-powered plants. This rigidity influences the formation of hourly prices for electricity, with increasingly frequent instances of zero or even negative prices during the year..

Sources: EPEX SPOT, Belpex, IPex, OMEL, Swissix

with a low variable cost and rigid operating constraints, like coal-powered plants. This rigidity influences the formation of hourly prices for electricity, with increasingly frequent instances of zero or even negative prices during the year, which result from two types of quotation strategies.

The first quotation strategy is implemented when demand is very low or is lower than expected. Since electricity cannot be stored on a large scale, it may be advantageous for a thermal power producer to provide their product at a negative price for a few hours (that is to say, they pay in order to continue operating) rather than bear the costs incurred by shutting down and restarting the plant. This is for example the case of fuel oil or gas-powered plants that can operate in load following mode, that is to say, in a flexible way according to daily, seasonal or other changes in energy demand. We can hypothesise that episodes of negative prices are most common in situations where a high demand, interspersed with periods of sudden load drops (weekends, nights), combines with high levels of renewable power generation. During the load drops, the thermal plant operators are willing to pay to sell their products and avoid stopping their plant, in anticipation of the high demand they will need to meet shortly afterwards.

A second quotation strategy may be for a producer to keep some flexible facilities in limited operating mode, as this generation capacity is paid for by the transmission system operator as a means of achieving technical control of the system, at a price fixed in the reserve contracts which is higher than its market price.

The non-storable nature of electricity plays a central role in the appearance of negative prices. Indeed, in the event of a drop in demand, unlike other capital-intensive, less flexible industries (steel, mining), electricity producers cannot rely on storage to sell their products at a better price later.

Negative prices reflect the costs incurred by the shortfall which thermal power producers need to make up for, caused by the lack of storage. It is down to the operators to assign, by default, a market value for electricity storage. Frequent episodes of negative prices could therefore encourage more producers to equip themselves

▾ *France experienced strictly negative hourly day-ahead prices for the first time in early 2012.*

Date	Heure	Prix (€/MWh)
01/01/2012	6 h 00	-0.01
	7 h 00	-0.08
	8 h 00	-0.03
02/01/2012	3 h 00	-5.03
	4 h 00	-1.48
25/12/2012	5 h 00	-0.01
	7 h 00	-50.06
	8 h 00	-0.09
26/12/2012	3 h 00	-5.06
	4 h 00	-5.07

Prices strictly lower than	Number of occurrences
€0/MWh	169
-€1/MWh	115
-€2/MWh	103
-€5/MWh	95
-€10/MWh	80
-€20/MWh	62
-€50/MWh	46
-€100/MWh	33
-€200/MWh	3
-€500/MWh	1

Source: EPEX SPOT

◂ *Level of negative prices in Germany between 2001 and 2012. The German power exchange EEX was the first European stock exchange to allow negative quotations, starting from 1 September 2008.*

with storage facilities and use prices as a disincentive to thermal power generation, thus giving priority to renewable energy.

Negative prices observed in France in January 2012

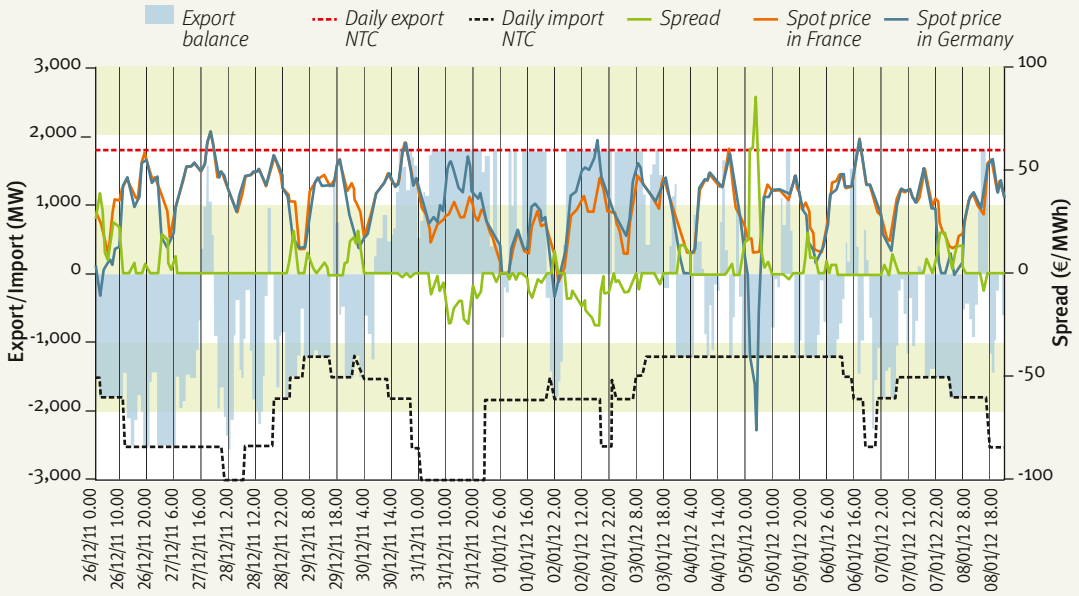
France experienced strictly negative hourly day-ahead prices for the first time in early 2012. There were not always allowed under market rules. The German power exchange EEX was the first European stock exchange to allow negative quotations, starting from 1 September 2008. Before the introduction of this system, the market responded with quotations below marginal costs due to low demand and high wind generation, and reserve capacity was called upon to ensure the security of the power system. Overproduction was thus suspended, without necessarily stopping renewable power generation units.

In France, negative prices were permitted with the expansion of the trilateral coupling (France, Belgium, and Netherlands) to include Germany (becoming the market coupling for the Central West Europe region) in November 2010. The phenomenon occurred ten times in 2012 *(see tables above)*.

The weather at the beginning of the month of January 2012 was particularly mild. Combined with weak economic activity on 1 and 2 January, this led to very low electricity consumption in France over these two days. At the same time, German consumption was relatively low, while there was relatively high production of wind and photovoltaic energy.

The German situation led to Germany exporting power to France during the off-peak hours of the night of 1 and 2 January 2012, while France had been exporting to Germany since 30 December 2011. We also observed a decoupling of day-ahead prices and saturation of German exports to France during the off-peak hours of the night of 2 January 2012.

French power generation facilities therefore had to greatly reduce their production during these hours to accommodate the low level of domestic demand. During the hours of negative prices, in the morning of 2 January 2012 in particular, almost all of the power was generated by free surface hydraulic and nuclear power plants.



◂ *Day-ahead prices and trades between France and Germany.*

Sources: EPEX SPOT, RTE

In summary, the market fundamentals in Germany (high unavoidable generation and a low level of consumption) and low French consumption at a time of reduced economic activity and mild climatic conditions explain the occurrence of negative prices of 1 and 2 January 2012. The lack of flexibility of production facilities in operation on both sides of the border led to the formation of these negative prices. It should be noted that this market episode took place just over a month before the price spikes occurred in early February 2012. Increased sources of uncertainties in the power systems of the centre-west region, due to the high penetration of unavoidable energy and increasing temperature sensitivity in France, could lead to extreme phenomena occurring more frequently in the future.

3. THE DEVELOPMENT OF RENEWABLES MAKES UPGRADES TO THE ELECTRICITY NETWORKS A NECESSITY

3.1. The CRE sets out the timeframes and costs of connection to new production facilities

Connecting new production facilities may require improvements to be made to the public electricity network. The work involved leads to varying connection times depending on the characteristics of projects, the state of the network and other connection requests. They also entail costs for the companies that requested the connection and for users, through the tariffs for the use of the public electricity grids (TURPE).

Connection times and costs are governed by a legislative, regulatory and procedural framework established by the CRE, with the particular aim of guaranteeing producers access to a transparent and non-discriminatory network, while ensuring the sustainable development of public electricity networks and taking players' interests into account.

◂ *Connecting new production facilities may require improvements to be made to the public electricity network. . View of "Les Mées" photovoltaic farm in Alpes-du-Sud.*

© ERDF – F. Chevreau , B. Fontana

ERDF's connection cost audit

The connection operations performed by the electricity distribution system operator ERDF are invoiced according to a scale which is revised regularly. The most recent scale, approved on 28 June 2011, was the subject of an audit by the CRE in June 2012. This audit showed that the prices set in the connection price scale were sufficient to cover costs, and that the prices charged by ERDF were consistent with the prices charged by other European system operators. The information gathered will also help the CRE when it comes to approve future versions of the scale.

The CRE proposes a new framework for the connection scales

In November 2012, after a public consultation launched in October, for the first time, the CRE made a proposal to the Ministers of the Economy and Energy, suggesting changes to the principles for calculating contributions due to public distribution and transmission system operators with regard to connection operations for which they are the project owners. In June 2013, this decree had still not been passed.

Opinion on the text of the regional network connection plans for renewables

The Grenelle 2 law introduced regional pooling of the cost of network structures to accommodate renewables, by establishing regional plans for connection to the renewable energy network (S3REnR, *see. p. 71*). The CRE was asked for its opinion on 24 January 2012 on a draft decree specifying how these schemes would be implemented. In its opinion of 21 February 2012, the CRE found that the producers connected to low and medium voltage were liable to contribute to the costs of the structures required for them to be connected on a wider scale.

New framework for procedures to process connection requests

The CRE has overseen procedures for processing connection requests since 2009[5], with the aim of enabling public network operators to guarantee access to these networks under objective, transparent and non-discriminatory conditions.

This subject is particularly important since the criteria used to determine the terms of the obligation to purchase generated electricity may be linked through regulation to specific steps in the connection process. As a consequence,

5 – Decision and communication of the CRE of 11 June 2009

▸ Most renewable energy production facilities are connected to the distribution networks. The issue of balancing production and consumption therefore applies at the local level, too. Connecting photovoltaic panels on a building in Paris.

© RTE – S. Brandstrom

€1,5 billion

Cost of investment in the distribution networks needed to accommodate photovoltaic production by 2020 (CRE estimate for 2011).

disputes arose during this process even though they originated from the acquisition of a purchase obligation tariff.

In December 2012, the CRE launched a public consultation on a new project to provide a framework for the drafting and content of procedures for processing requests for connection to the public distribution networks, after consulting the players involved in April 2012. The new project aims to meet players' expectations identified during the consultation, with regard to the timeliness and provision of information to applicants throughout the connection request process.

3.2. The new map of production sites requires the network to be strengthened

In the case of renewable energy, the new means of production are set up in a decentralised way. This redefinition of the map of production sites requires the electricity networks to be adapted in order to ensure that producers can connect and the generated energy can be supplied to the end consumers, in accordance with the safety rules of the power system and the quality targets in the area of user supply.

This adaptation involves strengthening the networks by increasing their ability to get through the local peak. This local peak may be due to a consumption surplus, as well as a production surplus, especially when local production is not synchronised with local consumption.

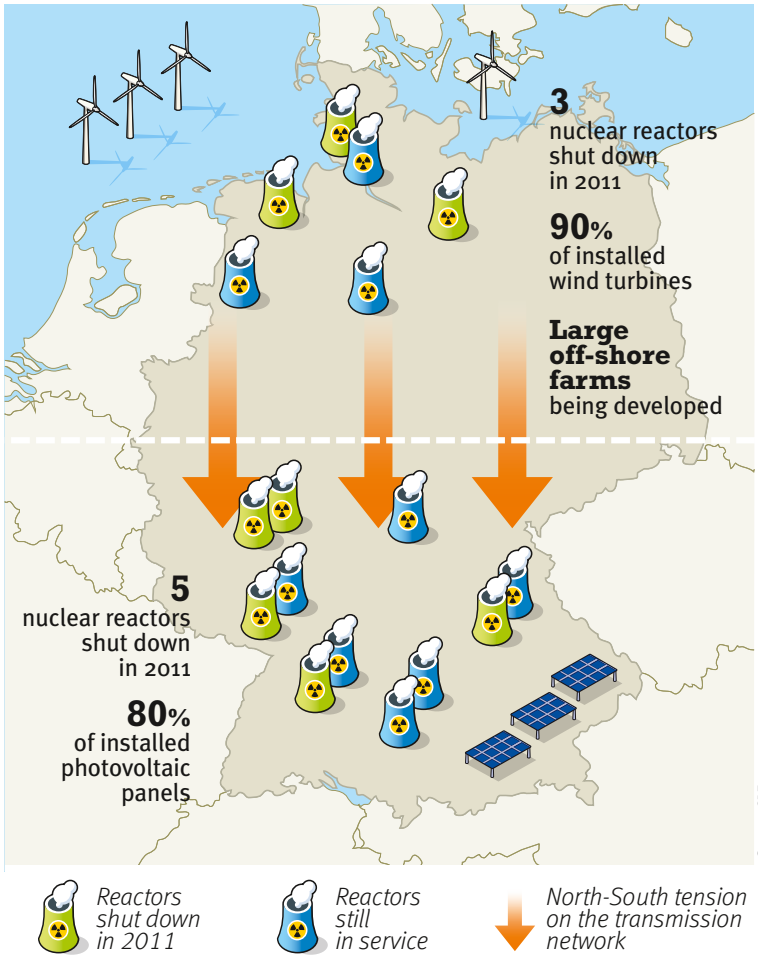
Renewable power generation facilities are mainly connected to the distribution networks. The issue of the balance between production and consumption therefore also applies to the local level: the design of distribution networks must anticipate situations of overproduction at the local level and the likelihood of a reflux of energy produced locally on the upstream networks.

As part of its public consultation of 6 March 2012 on the structure of the TURPE, the conclusions of a study conducted in 2011 into the challenges of introducing photovoltaic production into the distribution networks. This study estimated the investment needed to ensure the distribution networks are ready for photovoltaic production by 2020 at €1.5 billion, based on a target installed power of 6 GW, of which 402 MF would be covered by the TURPE.

The German network deals with the challenge of the energy transition

Germany's move away from nuclear power began in 1999 as part of a global energy transition strategy, and accelerated following the nuclear disaster in Fukushima in March 2011. Germany plans to shut down its last nuclear reactor in 2022. Alongside this, the targets power generated from renewable energy have been revised upwards, with 50% of power to come from green electricity in 2030. While the total installed generation capacity in the country is sufficient to meet the demand for electricity, even during peak periods, the ongoing energy transition process still raises technical difficulties, taking account of the improvements which will need to be made to the electricity transmission network in order to integrate intermittent, decentralised energy sources on a large scale.

The distribution of production capacity in Germany is indeed unbalanced. System operators must intervene frequently to take costly and burdensome operational measures to channel electricity from the north to the south of the country. Indeed, the vast majority of wind turbines were installed in the north of the country, and the development of large wind farms in the North Sea will further enhance wind farm concentration in this part of Germany. In contrast, large pools of activity and power consumption are concentrated in the south of the country, while installed production capacities are less numerous. The country's considerable photovoltaic capacity is not available all day, and the shutdown of five nuclear reactors in this part of the country in 2011 as a result of the moratorium (out of eight shutdowns in the whole of Germany) has significantly reduced production capacity. This geographical concentration of the means of production and high variation in wind and solar generation put increasing pressure on the transmission network when supplying electricity to consumers. ■



This public consultation was an opportunity to canvas players' opinions on integrating these costs into the network tariff. The 20 players who expressed an opinion on this matter were greatly divided as to whether it was appropriate to adjust producers' contribution to the costs of strengthening the distribution networks.

Many believe that we need to hear the feedback from the regional plans for connection to the renewable energy network (S3REnR) before considering making any changes to the structure of the tariff for injection into the distribution networks.

Load management: an additional tool to help maintain balance on the electricity network

In a historical context of abundant and inexpensive energy, electricity consumption tended to be satisfied by providing an equivalent level of production. Load management offers another paradigm to balance the power system: consume one less megawatt rather than produce one more. Load management involves a consumer being able to adjust their level of consumption (by waiving some of their consumption or by shifting it in time) according to the external signals they receive. These signals can be automatic (remote control of the consumption devices) or economic (modulating prices as an incentive for the consumer to change their behaviour). For industrial consumers as well as individuals, load management adds flexibility to the demand for electricity, allowing consumers to adapt their level of consumption according to the needs of the system or price levels.

In a context of developing green energy and research into demand management, developing load management has two benefits: firstly, it increases the power system's flexibility in managing intermittence in renewables, and secondly, it reduces the demand for electricity during peak periods.

The CRE is working with players in the sector to develop this type of solution, by setting up schemes to promote load management capacity within the system.

The recent emergence of new load management businesses is proof of the sector's interest in this area. While load management is not yet widely used, in the long term it should make an effective contribution to all the links in the power system chain, constituting an additional, even essential tool, to help with the energy transition.

Article 14 of the law of 15 April 2013, aimed at preparing for the transition towards a frugal energy system, sets out the legislative framework needed to implement a long-term load management system. ■

3.3. Can tariff signals diminish the costs of the energy transition?

In a situation where various players do not have an overview of the projects, sometimes there is a lack of coordination between the development of new means of production and investment in the electricity networks. This raises the issue of whether producers should be supplied with tariff signals which could help guide their decisions in moving towards economically effective solutions for the power system as a whole.

The issue of whether tariff signals are an appropriate way of cutting the cost of the energy transition remains an open question.

This issue was first addressed during the CRE's public consultation on 6 March 2012 on the structure of the TURPE. The CRE wanted to canvas players' opinions on whether it was appropriate to send producers connected to the transmission network a geographically differentiated economic signal reflecting the costs and benefits of their location. While many players expressed opinions on this issue, which is proof of their interest in the matter, their opinions varied greatly as to the most suitable solution.

When they directly supply a consumption site, decentralised production units can also help cut network costs, as long as they produce when the need arises. From this perspective, the tariff signals that reflect the benefits of auto-consumption could encourage its development, and the development of diffuse storage, which are emerging as tools for achieving a successful, economically controlled energy transition.

Annegret Groebel,

Head of the Department of International Relations, Bundesnetzagentur

Often cited as an example for its well-developed green energy sector, Germany is under the same pressures as its European neighbours: to provide its inhabitants with a reliable supply and relatively stable energy prices, while maintaining the country's industrial competitiveness and respecting the climate targets set by the European Union. Annegret Groebel sheds light on the political choices made and their consequences for Germany.

Germany is ahead of the pack when it comes to developing renewables, how do you explain that?

The guaranteed electricity purchase tariff model, which is degressive, as set out in the law on renewable energy (EEG), offers investors stable conditions for a period of twenty years. As well as this obligation to buy the electricity produced, transport system operators are also required to connect renewable production facilities to their network as a priority, without delay. They must also agree to inject all the electricity produced from renewables, to transport it and to distribute it as a priority, without delay.

Germany wants renewables to make up 80% of final energy consumption by 2050. What difficulties does this radical transition raise?

Germany has set long-term, concrete targets for developing the renewable sector. The aim of the "energy concept" for 2010 is to derive 35% of total electricity consumption from renewables by 2030, 65% by 2040 and 80% by 2050. Renewables accounted for a 17% share of total production in 2010, which rose to 23% in 2012. The significant development of renewables, especially in the photovoltaic sector, and the drop in wholesale prices, have had the consequence of increasing the subsidy for renewables, which rose from ct. €3.53/kWh in 2011 to ct. €5.277/kWh in 2013. For a residential consumer who consumes 3 500 kWh annually, this incurs an additional cost of €18.70 per year (exc. VAT). On the basis of this data, the discussion on the integration of renewables into the German networks and markets is very animated. The development and integration of renewables remains a very important challenge for the electricity networks.

How have the powers of the German regulator changed over time?

In order to enable a fast, large-scale development of the electricity networks, several recent legal provisions conferred numerous powers on the regulator in this area. These powers are set out in the law on accelerating power line construction: the "Netzausbaubeschleinigungsgesetz" (NABEG), which came into force in 2011. This law was passed following the energy shift (away from nuclear power) decided upon by the government, and should make it possible to reinforce or construct power lines in order to facilitate the integration of renewable power generation.

From now on, the Bundesnetzagentur is responsible for procedures in the field of the environment and permission for the construction of power lines. It defines the architecture of the network development plan in collaboration with operators. In order to successfully complete this new task, the Bundesnetzagentur employs around 240 people (lawyers, engineers, urban planners, biologists, etc.).

Despite the nuclear shutdown, will Germany manage to maintain its CO_2 emission reduction targets?

Germany plans to reduce greenhouse gas emissions by 40% between 1990 and 2020, and from 80 to 95% by 2050, and will achieve its targets.

In 2011, a total reduction of 26.4% in greenhouse gas emissions had already been achieved. In the energy sector, which is one of the main sources of gas emissions in Germany (around 80%), new renewable sources have made a very positive contribution to reducing emissions.

However, we should bear in mind that greenhouse gas emissions increased by 2% between 2011 and 2012 due to coal-based electricity production. ■

At all events, the issue of whether tariff signals are an appropriate way of cutting the cost of the energy transition remains an open question, on which the CRE will continue to work in the years to come. ■

THE COST OF ENERGY, DEMAND MANAGEMENT AND THE FIGHT AGAINST FUEL POVERTY

Due to the development of renewable energy, the necessary massive investment in the power networks and the cost of the work involved in developing and maintaining nuclear power plants, we can foresee a long-term rise in energy prices. This is a major concern for French people. 3.8 million households spend over 10% of their budget on energy bills and are in a situation of fuel poverty. The implementation of demand management and energy efficiency is the main lever for reducing consumers' bills.

11%

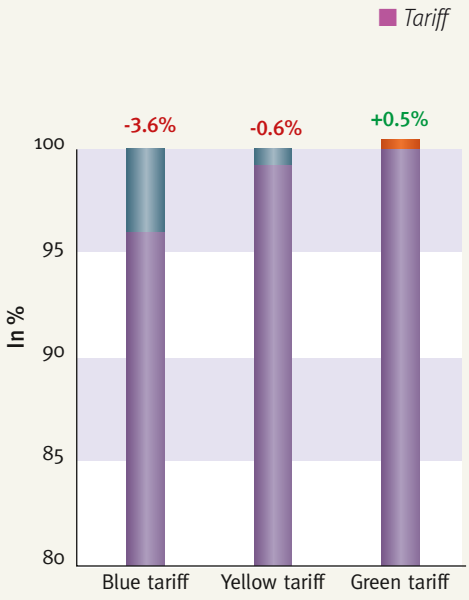
On the gas market in 2012, the cheapest supply was 11% cheaper than the regulated sales tariff for a customer using gas for heating, i.e. a saving of €125 per year).

KEYWORDS

Smart meter

Energy conservation

Social tariffs

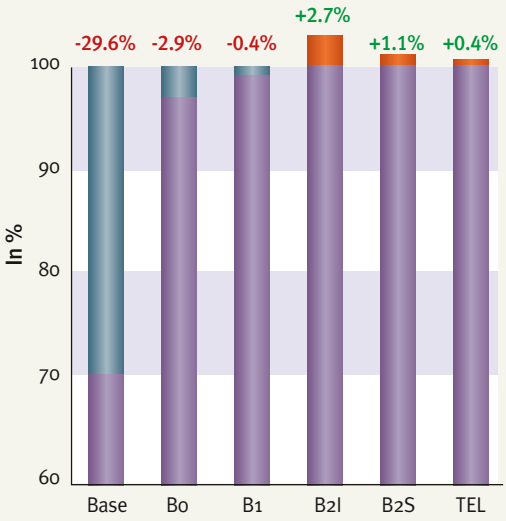


▸ *Coverage of costs under the regulated natural gas tariffs, by tariff, on January 2013.*

Source: GDF SUEZ Analysis: CRE

◂ *Coverage of costs under the regulated electricity tariff - blue, yellow and green - on 1 August 2012.*

Source: EDF – Analysis: CRE



1. THE REGULATED SALES TARIFFS FOR HOUSEHOLD ELECTRICITY COULD INCREASE BY 30% BY 2017

In its first report on the operation of the energy retail markets, the CRE made provision for a significant increase in electricity prices for all consumers over the next five years, all things being equal. According to its projections, the increase between 2012 and 2017 in the average bill of a customer on a blue tariff (reserved for individuals and small business), with consumption being equal, will reach 28.2% in current euros, including 10.4% inflation and the contribution to the public service electricity (CSPE), which accounts for approximately 5.1% per year. This exercise is based on the cost stacking principle as set out by the law, and hypotheses on the development of costs to be covered over time.

In evaluating the additional cost for supplying electricity on the wholesale market, the CRE bases its calculations on the weighted average price of the volumes listed on the stock exchanges for the 2013 calendar product, and on OTC from 2010 to 2012. For the following years, it assumes 1% inflation (i.e. an annual increase of 3%). The CRE also assumes that marketing costs will increase by less than 1% of the 28.2% overall increase, and assumes additional costs[1] of around €2/MWh for small consumers. Inflation is taken into account at a rate of 2% a year.

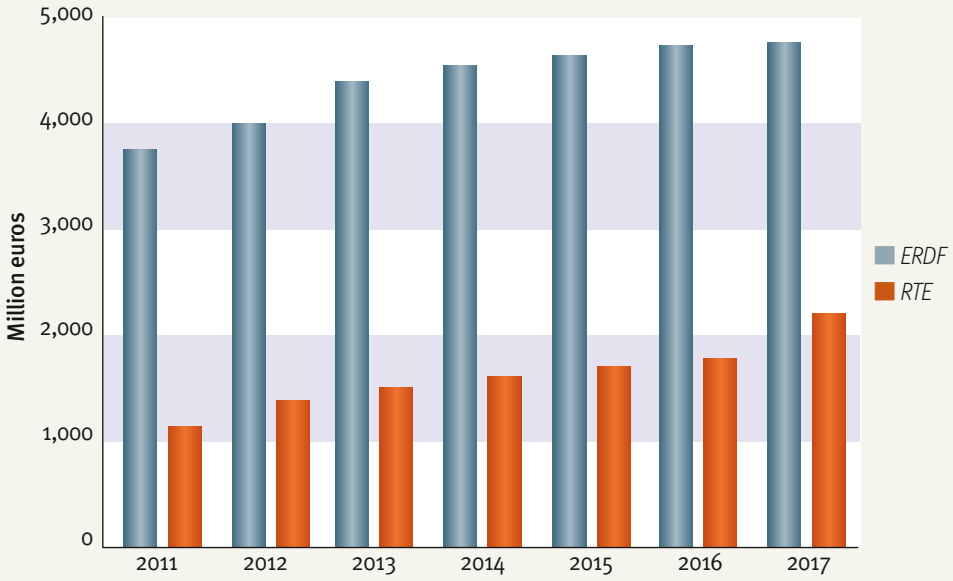
The main hypotheses on the development of costs to be covered (TURPE, ARENH and CSPE) are detailed below.

1.1. System operators will have to deal with continued growth in investment

The networks are entering a period of high investment

The public electricity transmission and distribution networks require significant work to successfully integrate the markets, connect new generation facilities, strengthen weak areas in the electricity supply, and upgrade the network. The increase in investment amounts, which began

1 – Additional costs mainly correspond to the costs of discrepancies (which a supplier has to pay to offset consumption uncertainties in their portfolio, which place a burden on the supply-demand balance) and the various costs involved in accessing the market.



◂ *Projected investments by RTE and ERDF (including delivery of work).*

Source: CRE

in the mid-2000s, is expected to continue in the coming years.

Investments will have a growing impact on tariffs over the years

Tariffs for the use of the public electricity grids cover the system operators' capital costs, which include depreciation on investments on the one hand, and remuneration of fixed assets (which form the regulated asset base) on the other. These capital costs are spread over the entire life of the structures, so the user pays a tariff for the existing network rather than just the investments made in that year. That is why the impact of rising investments on tariffs is not immediately obvious, but is felt cumulatively over time.

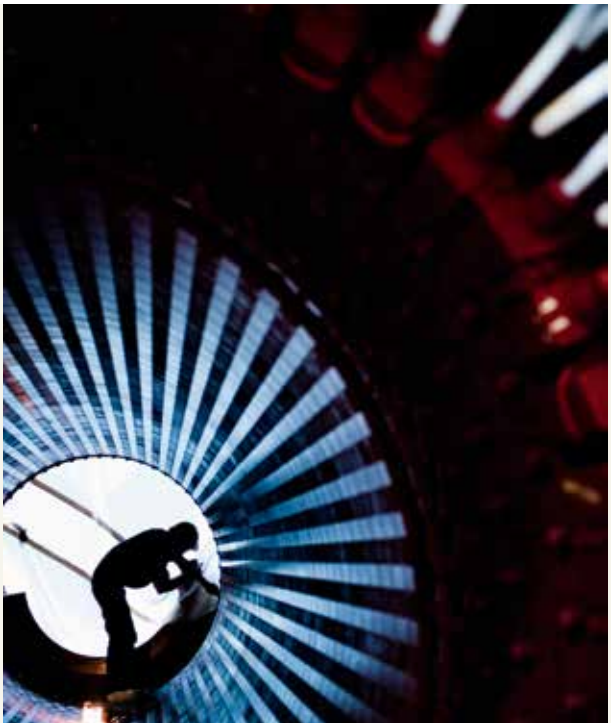
As the regulated asset base grows, capital charges are experiencing strong growth, corresponding to the development of new infrastructure on the one hand, and the replacement of old structures on the other. These are most often depreciated by more expensive structures because of the increase in commodity prices, changes in technology such as landfill, or additional integration costs linked to the social acceptability of the structures.

Moreover, development investments are by necessity accompanied by an increase in operating and maintenance charges for the newly created structures.

The stabilisation of electricity demand, if it continues, will lead to growth in the TURPE per unit in constant euros

During the last major wave of investment in the electricity sector in the 1970s-1980s, unit tariffs did not change much in constant currency, as the growth in demand offset the increase in charges to be covered.

Currently, growth in withdrawals is very limited due to the effects of the economic crisis on industrial demand, which is not offset by the increase in consumption of the domestic and tertiary sectors. Furthermore, the diversification of energy for heating and energy efficiency measures will contribute towards moderating the increase in electricity demand. This should result in a pincer effect: in the coming years, the system operators' rising capital costs will, in all probability, be higher than the growth in user withdrawals. The TURPE per unit is therefore destined to increase in constant euros.



Investments in maintenance and extension of the term of the operating license will be included in the ARENH price as they are incurred by EDF, based on a forecast and its correction ex post.

◂ *Work on the stator of nuclear unit 1 at the nuclear power plant at Tricastin during the ten-yearly inspection in June 2009.*

© EDF – C. Helsly

▸ *Teams from the SIR (Service inspection réglementation - Inspection and Regulation Department) at work on pressure equipment, including the steam ring (shown here) at the nuclear power plant at Penly.*

© EDF – P. Eranian

€42/MWh

The CRE took a stable ARENH price of €42/MWh until 2013 inclusive as a working hypothesis, along with an increase at the rate of inflation from 2014 onwards.

1.2. The price of ARENH will be a decisive factor in tariff development

Created by the NOME law, regulated access to historic nuclear power (accès régulé à l'électricité nucléaire historique - ARENH) entitles suppliers to buy electricity from EDF, in volumes determined by the CRE, at a regulated price. During a transitional period ending on 7 December 2013, the price of ARENH is decreed by the Ministers of Energy and the Economy, after the CRE has issued its reasoned opinion. After that date, ministers must decree a new price based on a proposal by the CRE.

The Energy Code states that in order to ensure fair remuneration for EDF, the price of ARENH must be representative of the economic conditions of electricity generation at its historic nuclear power plants, for the duration of the mechanism. A decree by the Conseil d'État must specify the conditions under which the price of ARENH is fixed.

As this text had not yet been published on the date of the CRE's deliberation, in order to give its opinion of 5 May 2011 on the price of €42/MWh planned for 1 January 2012, the CRE had to establish an appropriate method of identifying and accounting for costs that reflected the economic conditions of historic nuclear power generation.

This calculation method is based on consideration of the following:

– the **capital invested in EDF's nuclear plants**, which will be reimbursed through an asset base amortised over the life of the ARENH mechanism at the weighted average cost of EDF company's capital. This asset base will include amounts initially invested in the historic nuclear plants which have not yet been amortised, as well as all or part of the capital that EDF invested and still has to invest in order to cover its long-term nuclear costs (dismantling, deconstruction, waste management, etc.) in application of law no. 2006-739 of 28 June 2006;
– **operating costs relating to the nuclear plants**, which will be reimbursed as and when they are recorded, based on a forecast and its correction ex post;
– **investments in maintenance and extension of the term of the operating** license that will be included in the ARENH price as they are incurred by EDF, based on a forecast and its correction ex post.

This method, which was applied at the time to data forwarded by EDF, had led the CRE to set the price of ARENH within a bracket of €36/MWh to €39/MWh. The difference from the €42/MWh price is justified by the government by anticipated consideration of the investment required to improve the safety of nuclear plants - as a consequence of the Fukushima accident - which the CRE is not able to decide upon, and which the CRE stated should be taken into consideration as they are incurred.

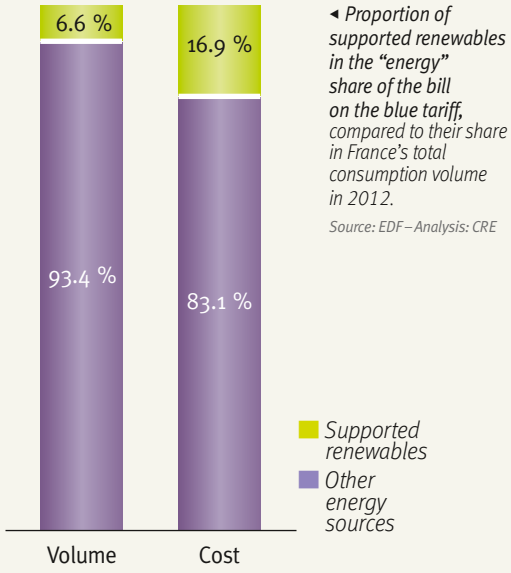
The Cour des Comptes' (Court of Auditors) report on the costs of the nuclear power industry, published on 31 January 2012, and the Autorité de sûreté nucléaire (French Nuclear Safety Authority) report, published on 3 January in the same year, provide insights into these issues. They will be taken into account in the next ARENH price and in the upcoming decree. While we await the publication of this text, in order to be able to calculate the prospective development of electricity prices in France, the CRE worked on the hypothesis of a stable ARENH price of €42/MWH until 2013 inclusive, and an increase in line with inflation from 2014 onwards.

Variations in the ARENH price influence the level of the energy share in supply offers made to end customers. The effect is, however, significantly different for different categories of consumers. Indeed, the theoretical right to ARENH available to a supplier depends on the consumption[2] of its customers during certain specified hours in the year. With the electricity purchased from EDF at the ARENH price, providers must be able to cover a share of their customers' consumption equivalent to the share of nuclear production in total French consumption. For example, for the year 2013, the energy share of a residential customer's bill will be approximately 80% ARENH[3], and that of an industrial customer will be about 90% ARENH.

Variations in the ARENH price influence the level of the energy share in supply offers to end customers.

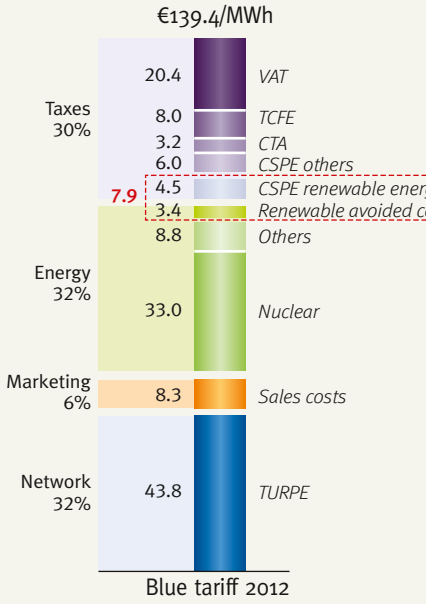
2 – Terms of calculation defined by the decree of 17 May 2011 on the calculation of rights to regulated access to historic nuclear power.

3 – ARENH rate defined as the volume ratio of ARENH obtained by the looking at the customer's load curve, determined following the method defined by the regulatory texts and the customer's total consumption. It is used to define the volume of electricity supplied under ARENH for a given consumption profile.



◂ *Proportion of supported renewables in the "energy" share of the bill on the blue tariff, compared to their share in France's total consumption volume in 2012.*

Source: EDF – Analysis: CRE



◂ *Components of an electricity bill inc. tax on the blue tariff in 2012: the cost of green energy appears in the consumer's bill on two levels.*

Source: EDF Analysis: CRE

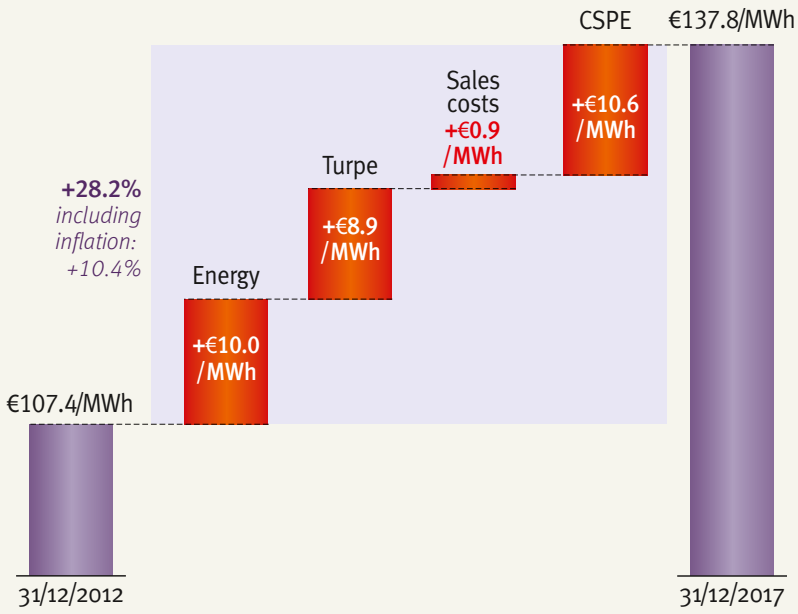
1.3. More intense efforts will be made to develop renewable energy

The additional cost linked to renewables in mainland France could be multiplied by 1.5 by 2017

Renewable energy sources that benefit from a financial support mechanism correspond to power generation sectors which are not yet mature enough to reach the economic profitability threshold reflected in wholesale market prices for electricity. Support for these energy sources primarily consists of a mechanism that places a purchase obligation on incumbent suppliers (EDF, local distribution companies and Electricité de Mayotte, see p. 98). This purchase obligation results in charges for these operators, offset through contributions to the public service electricity service (CSPE). Indeed, the required purchase prices are higher than the price on the wholesale market (weighted market price) on which suppliers could have bought their supply had they not been subject to the obligation to purchase. The calculation of CSPE charges, based on the difference between the purchase obligation tariffs and wholesale market prices, is very sensitive to changes in market prices.

The calculations performed in October 2012 by the CRE showed that projected renewable energy costs in mainland France totalled €2.8 billion in 2013, more than twice the costs actually recorded in 2011 (€1.3 billion). Furthermore, the CRE has produced a forecast of renewable energy costs in mainland France in 2017. The development scenario for green power generation plants takes account of the industries' current rate of growth and the CRE's experience in the field of calls for tenders. With today's highly uncertain oil and gas prices, which affect the wholesale market price of electricity, the assumption is that market prices will grow by 3% per year. The weighted average market price would therefore reach a value of €60.89/MWh in 2017.

In total, in the scenario studied, the annual costs for renewables would reach €4.1 billion in 2017, i.e. €1.5 time higher than the planned costs for 2013. This additional cost is mainly down to the significant growth in the photovoltaic sector (55% of charges), where there is a greater discrepancy between purchase tariffs and the market price (the average purchase tariff is estimated at €378/MWh in 2017) and, to a lesser extent, the wind (17%) and biomass sectors (20%).



◂ *Projected development of the blue tariff to 2017, CSPE included, in current euros.*
The estimated increase in the TURPE of +€8.9/MWh shown in this graphic took place before the decree of the Conseil d'État of 28 November 2012 cancelling the TURPE 3. For the TURPE 4, the method for calculating capital costs is liable to change.

Analysis: CRE

Renewables benefiting from a support mechanism made up 17% of the energy share of the bill for 2012

The cost of green energy appears in the consumer's bill on two levels. Firstly, they pay the tariff for the volumes of electricity generated by renewables and bought by EDF, at the wholesale market price (these are the "avoided costs", as buying this energy means EDF does not have to buy an equivalent volume of electricity on the wholesale market), and secondly, the CSPE, a fraction of which finances the additional cost of supported renewables.

For industrial consumers, the impact of CSPE is often reduced, because they benefit from partial exemptions under certain conditions (CSPE capped at €569.418 per site or 0.5% of the added value for industrial companies consuming more than 7 GWh per year). The cost of renewable energy accounted for 13% of the energy share of the bill of an average customer on the blue tariff (for residential and small business customers) in 2011 even though the volume produced by supported renewable energy sources is only 5.2% of total consumption in France. In 2012, this figure reached 17% of the energy share for 6.6% of total consumption in France.

From late 2012 to 2017, for an average customer on the blue tariff, the increase in CSPE will account for 35% of the total increase in the bill before tax (CSPE included).

2. GAS SALE PRICES SHOULD BENEFIT FROM A FAVOURABLE MARKET ENVIRONMENT

2.1. The GDF SUEZ tariff formula has been modified

The GDF SUEZ formula for setting regulated sales tariffs based on a cost estimate was once more modified on 21 December 2012. This change was made following an order of the judge of Conseil d'État referrals on 29 November 2012, requiring the Minister of the Economy and Finance and the Minister of Ecology, Sustainable Development and Energy to come to a new decision on the setting of regulated retail tariffs for public gas distribution by GDF SUEZ, within one month of receiving notification of the order. The ministerial order incorporated the increase in the share indexed to the price on the wholesale natural gas markets into the long-term contracts of GDF SUEZ. It has now been raised to 35.6%

◂ *To compare offers from different energy suppliers, consumers can consult the www.energie-info.fr website developed by the CRE and the National Energy Ombudsman, in collaboration with the DGCCRF and the DGEC.*

The share indexed to the wholesale natural gas markets in GDF SUEZ's long-term contracts has been increased to 35.6%.

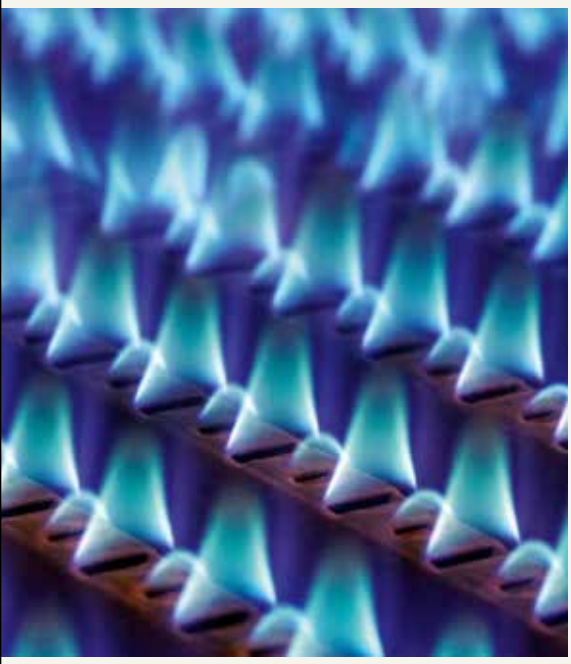
against 25.9% in the formula which had been in force since 1 January 2012. In issuing its opinion of 20 December 2012 on the draft order setting regulated sales tariffs for GDF SUEZ, which came into force on 1 January 2013, the CRE, in the short time allotted, found no reason to believe that the proposed formula from 1 January 2013 onwards would not provide a correct approximation of GDF SUEZ's supply costs. It also announced that it would conduct a comprehensive review of the formula in the first quarter of 2013, to verify its adequacy with regard to the costs of GDF SUEZ's European supply portfolio.

The new formula allows the consumer to benefit more from prices on the natural gas markets, which remained significantly lower in 2012 than those of contracts indexed to oil products only. However, the CRE reiterated that the increase in the share indexed to the gas market will lead to greater upwards and downwards fluctuations in the regulated sales tariffs, because of price volatility on the wholesale gas market.

2.2. Certain market deals offer prices much lower than the regulated tariffs

On the natural gas market, thanks to favourable market conditions, alternative suppliers offer deals where the price is substantially lower than the regulated sales tariff.

In addition, any residential consumer who chooses a market offer retains the right to return to regulated tariffs at any time. Over the year 2012, the lowest offer was 11% less on average (approximately €125 per year) than the regulated sales tariff for B1 type customer (using gas for heating). We should also note that some alternative providers are marketing fixed price offers that give consumers a better view of the price of their energy. Until recently, these were only available from the incumbent supplier GDF SUEZ.



▲ *The increases in gas infrastructure usage tariffs are still contained by the incentive-based regulatory mechanisms for costs and productivity targets set by the CRE for operators. Gas storage facility at Lussagnet.*
© TIGF – É. Follet

2.3. Despite tariff increases, structural changes and investments in gas infrastructures will help to optimise supply costs

The tariffs set by the CRE in 2012 for the use of gas infrastructures are rising due to more stringent regulatory developments at the national level (building safety requirements, increased taxation and social security contributions, etc.) and the European level (implementation of the third package). Lower capacity subscriptions and gas consumption due to the economic crisis and consumption management mechanisms, as well as continued investment in the transmission networks, also weighed on prices. The GrDF tariff thus increased by 8% on 1 July 2012. The GRTgaz and TIGF tariffs increased by 8.3% and 8.1% on 1 April 2013. These increases are still contained by the incentive-based regulatory mechanisms for costs and productivity targets set by the CRE for operators.

On the transmission networks, the tariffs make provision for major investments and changes in the structure that will lead to the emergence in the medium term of a liquid gas market in France, supplied by six different access points: four land points (interconnections with Spain at Larrau and Biriatou, Belgium at Taisnières, Norway at Dunkirk and Germany at Obergailbach) and two sea points (the two LNG terminals at Fos in the south of France and the Montoir terminal on the Atlantic coast). Comparing several different sources of gas, transported either by pipeline (from Norway, the Netherlands, the UK and Russia) or by LNG carriers (from Algeria, Nigeria, Qatar, etc.), will improve supply security in France, and consumers will benefit from better gas prices.

Regarding distribution, the GrDF tariff covers an action plan to promote the use of gas. By helping to bring new customers to the existing distribution networks, these actions will help reduce the cost of transport for all consumers in the medium term. The CRE has established a strong financial incentive to ensure the effectiveness of the GrDF's actions. Finally, these tariffs include enhanced incentive-based regulatory mechanisms to encourage operators to improve their quality of service.

42% of households restricted their heating use during winter 2011-2012

To offset the high energy expenditure in their budgets, 42% of households said they restricted their use of home heating last winter to avoid excessively high bills, with people aged 65 and over (49%) being particularly affected by this problem. In addition, 11% of respondents said they had encountered difficulties in paying some electricity or natural gas bills.

Source: 6th Energie-Info annual barometer on the opening of the markets, conducted by the National Energy Ombudsman and the French Energy Regulatory Commission. Survey conducted by the CSA institute from 5 to 12 September 2012 among a representative sample of 1,503 French households interviewed by telephone. Sample based on the quota method (age and occupation of the main householder) after stratification by region and size of town.

3. AGAINST A BACKDROP OF INCREASING UNIT COSTS, ENERGY DEMAND MANAGEMENT AND THE FIGHT AGAINST FUEL POVERTY ARE ESSENTIAL

3.1. The number of social tariff beneficiaries should increase considerably

The term social tariff refers to the priority need tariff (TPN - tarif de première nécessité) for electricity customers, and the special solidarity tariff (tarif spécial de solidarité - TSS) for natural gas customers. The mechanism for identifying potential beneficiaries was amended by the decree of 6 March 2012. These special tariffs are reserved for households with an annual income below or equal to the threshold of entitlement to supplementary universal health coverage (Couverture maladie universelle complémentaire - CMU-C, threshold amended by the decree of 20 December 2012, see below). Persons eligible for these tariffs used to have to apply for them by completing the certificate that was sent to them by suppliers or the body acting on their behalf. Under the new procedure, these tariffs shall apply automatically to all recipients of the CMU-C. In addition, to avoid disruptions to the allocation of social tariffs to people who have failed to apply to renew their entitlement to CMU-C, these tariffs may be extended by a further six months.

The current system for allocating social tariffs generates significant additional management costs in terms of the amount of discounts granted. The forecast additional management costs amount to 8% of the projected costs associated with the TPN and TSS for 2012, which amount to €120 million. Annual discounts are granted, in the region of €95 inc. tax for the TPN and €95 inc. tax for the TSS. In its opinion of 2 February 2012, the CRE recommended that thought be given to developing a simpler and more effective mechanism to assist clients suffering from fuel poverty. To simplify the TPN allocation procedure, improve the accessibility of this tariff and help open up the markets, the CRE considers that the implementation of the TPN must be open to alternative suppliers, as is the case for the TSS *(see law of April 15, below)*.

The new mechanism for the allocation of social tariffs increases the number of customers who will benefit from this tariff. According to forecasts by suppliers, based on their initial experience of

Fuel poverty: understanding it and taking action
Symposium of 22 March 2012

The cost of energy has become a major concern for citizens. For those on the lowest incomes, the share of the budget devoted to energy expenditure can sometimes become an insurmountable burden. The first unpaid electricity bill or gas often marks the beginning of their slide into fuel poverty, which is difficult to get out of, despite existing aid schemes. The National Energy Ombudsman and the CRE wanted to compare views and solutions put forward by players from diverse backgrounds in order to deal with this worrying phenomenon at a symposium at the National Assembly, in partnership with the University of Paris - Dauphine and the Association of Energy Economists.

In practice, fuel poverty results from a combination of three main factors: vulnerable households on low incomes, poor thermal performance of housing and the cost of energy. INSEE estimated that 3.8 million households are in this situation[1], or about 8 million people. The announced increase in energy prices coupled with the impoverishment of part of the population due to the economic crisis, however, raises fears of an explosion in fuel poverty. While 25% of the poorest households are twice as likely to be in fuel poverty, it is increasingly affecting the middle classes (from the elderly, often homeowners, to double-income couples who have moved away from urban centres to find accommodation).

A consensus has emerged from these debates: fuel poverty is now a topic that requires priority treatment. The opening up of the liberalised energy market cannot be achieved without taking the most vulnerable people into account.

However, the regulated sales tariffs must cover costs which are set to increase significantly in the coming years. These are not social tariffs. We must therefore provide specific solutions for households in fuel poverty, which requires a segmented approach.

Yet while the aid schemes are a step in the right direction, they are nevertheless proving inadequate. Social aid (to help pay bills) has a palliative effect, but is not a long-term solution. Housing renovation aid (to help reduce bills) is unsuitable for the most vulnerable households, who do not have the means to top up the aid with their own money to finance the work. Moreover, even where aid schemes exist, they are not always used optimally: as they are too narrowly targeted, based on lists of "fuel poor" households, the most vulnerable households can be deterred from taking advantage of them, due to the stigma attached. These people develop strategies to avoid being identified by social services. They go without heating or draught-proof their homes, putting their health and safety at risk. If aid is allocated too extensively, it may create a windfall effect. There is also the problem of landlords who have no incentive to invest large amounts of money to reduce their tenants' bills.

There are two priorities when it comes to improving the effectiveness of the existing schemes: coordinating local players around an emergency procedure to deal with the first unpaid bill before the power is cut off, and simplifying the tariff-setting and aid system. More effort may put into providing personalised aid to those who most need it. The solution of a power cheque, proposed by the National Energy Ombudsman and supported by several consumer associations and NGOs, was not made law in the end. It was in line with this simplification strategy.

In a more general way, how we deal with fuel poverty is ultimately a social choice. ■

1 – Source: Enquête Nationale Logement (national housing survey) by the Insee (2006).

The European directive of 25 October 2012 on energy efficiency

On 25 October 2012, the European institutions passed the directive on energy efficiency (no. 2012/27/EU). The aim of these new measures was to increase energy savings by 20% by 2020, by improving the supply and use of energy within the European Union.

Member States have until spring 2014 to transpose the directive. It provides for the establishment of a mechanism requiring energy distributors and/or suppliers to save a volume of energy equivalent to 1.5% of their average annual sales, by 2020. Eventually, all customers will also be able to have free access to readings and billing information, specifically stating their actual energy consumption. The directive also lays down certain technical specifications for smart meters, the deployment of which is set out in the third energy package. ■

7% of French households

Only 7% of French households say they are able to estimate their household's annual electricity consumption.

Source: 6th Energie-Info annual barometer on the opening of the markets, conducted by the National Energy Ombudsman and the French Energy Regulatory Commission. Survey conducted by the CSA institute from 5 to 12 September 2012 among a representative sample of 1,503 French households interviewed by telephone. Sample based on the quota method (age and occupation of the main householder) after stratification by region and size of town.

implementing the new procedure, there will be 1,442,500 households on the TPN and 608,000 on the TSS by the end of 2013, against 651,000 on the TPN and 313,000 on the TSS respectively at the end of 2011. To date, the CRE has no other statistics because, according to the current mechanism, suppliers only declare the charges actually paid in March of the current year for the previous year. The decree of 21 December 2012 extended the benefit of social tariffs to include households with an annual income below the threshold of entitlement to assistance with supplementary health insurance (assurance complémentaire de santé - ACS). Given the current threshold of entitlement to CMU-C and the level of ACS claims recorded by the Department of Social Security, the number of households benefiting from the social tariffs is estimated to reach 1,992,500 for the TPN and 828,000 for the TSS in 2013.

Finally, the law of 15 April 2013 to prepare for the transition to a low energy system provides for the extension of social tariffs to 4.2 million households, or eight million people. Customers of alternative electricity suppliers will also benefit from the priority need tariff, whereas at the present time, only consumers who have signed a contract with EDF or a local distribution company have access to that tariff. It extends the winter cut-off amnesty (electricity, heat, gas), from 1 November of each year to 15 March of the following year, to all those in need. Suppliers of electricity, heat and gas will notify the CRE of any interruptions or reductions in supply they intend to carry out, in accordance with procedures defined by regulation, to allow the CRE to monitor the development of fuel poverty. Within nine months of the enactment of the law, the government will submit to Parliament a report which will focus on the creation of a public service to help achieve energy efficiency in residential housing, which will be responsible for supporting consumers in all the actions they are taking to reduce their energy consumption.

3.2. Managing energy demand in order to manage energy bills

Faced with the announced increase in energy prices, energy demand management (EDM) is becoming a critical issue for consumers. EDM requires changes in consumer behaviour and investment in making homes more energy-efficient, which are the main ways of bringing bills down. Access to more comprehensive and

Decisions of the Conseil d'État on regulated sales tariffs for gas

The Conseil d'État made two decisions in 2012 and three at the beginning of 2013 on regulated sales tariffs for natural gas for GDF SUEZ.

CE, 10 July 2012, GDF SUEZ and the National Association of Energy Retailers (Association nationale des opérateurs détaillants en énergie - ANODE)

This first decision cancels the order fixing the rates for GDF SUEZ in the fourth quarter of 2011, because the change set out in the order, which consisted of a freeze for residential customers and a 4.9% increase for business customers, did not cover the average costs of the operator in full. The Conseil d'État also urged ministers to issue an order within two months, establishing tariffs retroactively for GDF SUEZ for this period, which is the subject of the order of 1 August 2012. This provides for an increase of 10% for residential customers and 8.8% for business customers, which covers GDF SUEZ's costs for the fourth quarter of 2012.

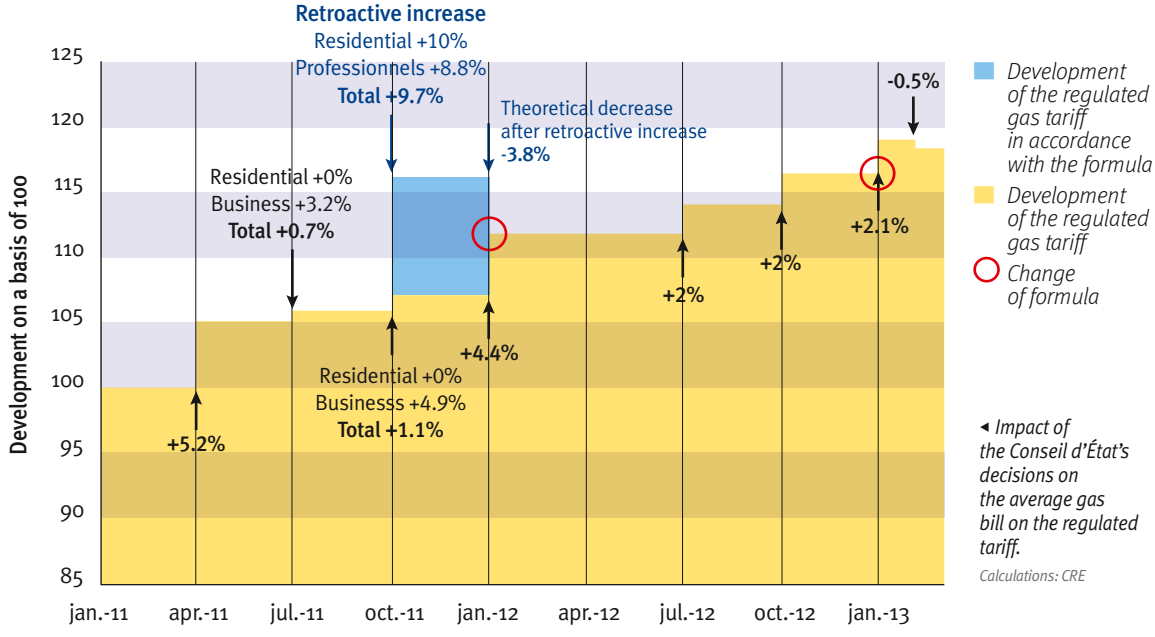
The Conseil d'État has also stated that if the tariff formula leads to changes which it does not consider correct, it will contact the government again in the future to ask for the formula to be changed. Meanwhile, the current formula must be applied to avoid distorting the competition rules.

Order, 29 November 2012, Association nationale des opérateurs détaillants en énergie (ANODE)

The judge of referrals suspended the execution of the order of 26 September 2012 because it did not set the increase in regulated sales tariffs for natural gas at a higher level. The Conseil d'État also ordered the ministers to come to a new decision on the setting of tariffs for GDF SUEZ, within one month. In response to this decision, the government issued a n order on 21 December 2012 which modified the formula for calculating GDF SUEZ's supply costs, and started a think-tank on the development of the legislative and regulatory framework for regulated natural gas sales tariffs, currently defined by the Energy Code and the decree of 18 December 2009.

CE, 30 January 2013, Association nationale des opérateurs détaillants en énergie (ANODE), GDF SUEZ – Union professionnelle des industries privées du gaz (Professional Union of Private Gas Industries), Association nationale des opérateurs détaillants en énergie (ANODE)

In these three decisions, the Conseil d'État cancelled the orders of 27 June 2011, 18 July 2012 and 26 September 2012 on the regulated sales tariffs for natural gas provided by the public distribution networks of GDF SUEZ, on the grounds that they did not cover the average costs of the operator in full and that the difference between tariff growth and cost growth was not justified by an initial overestimation of the tariffs, or by the foreseeable fall in these costs. In addition, the Conseil d'État ordered the Minister of Economy and Finance and the Minister of Ecology, Sustainable Development and Energy to issue new orders, within one month of receiving notification of the decision. ■



◂ *Impact of the Conseil d'État's decisions on the average gas bill on the regulated tariff.*

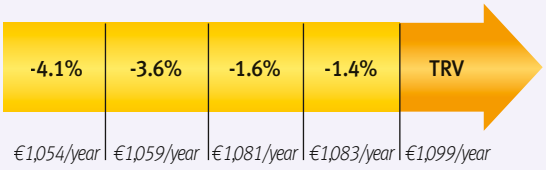
Calculations: CRE

Consumers can save money by taking advantage of a competitive marketplace

In its communication entitled "Making the internal energy market work" *published in November 2012, the European Commission stated that European electricity consumers could save around 13 billion euros per year by choosing the cheapest offers. With regard to this, the European Commission also said that regulated tariffs for sales to the end consumer increased the consumer's reluctance to switch supplier, and not just in the case of the most vulnerable consumers.*

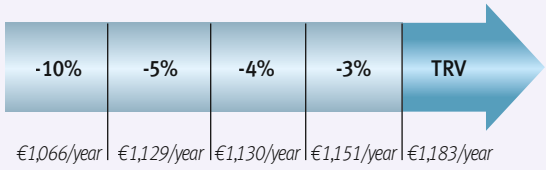
Better information about their rights and how these are protected, as well as the deployment of smart systems, would also enable customers to manage their consumption and adjust their demand in response to changes in the price of supplier offers. To this end, a detailed bill, the ability to check real-time consumption and the development of price comparison sites are the main instruments proposed by the European Commission to help the consumer become an informed player in the energy market. ■

Overview of market offers which are more competitive than the regulated sales tariff for electricity



Comparison made for a ***typical residential customer****:*
– with a subscribed power of ***9 kVA****;*
– with an annual consumption of ***8,500 kWh in peak hours/off-peak hours****.*
Bill inc. tax estimated per year, excluding special offers

Overview of market offers which are more competitive than the regulated sales tariff for natural gas



Comparison made for a ***typical residential customer****:*
– with an annual consumption of ***17,000 kWh*** *(Base);*
– based in Paris.
Bill inc. tax estimated per year, excluding special offers

Source: energie-info comparison checker

frequent information about consumption is a key factor in investment decisions and behavioural change. However, the current twice-yearly meter readings are an instrument for billing, not for providing information. When a consumer only becomes aware of what they have consumed several months later, it is already too late for them to act.
Smart meters will play a central role in raising awareness and therefore influencing behavioural change, because they enable everyone to keep track of how much electricity or gas they consume every day.

Awareness will first of all be raised on an individual basis. In electricity, the load curve provided will let users know when the power is consumed. This greater clarity in consumption data will enable users to set their own consumption targets. New services may emerge in the area of energy demand management: real-time information, consumption alerts, etc.
Actions to manage energy demand can also be taken at the collective level. Many players could benefit from more accurate and more frequent data on the aggregated consumption of different consumer groups: local authorities to measure the consumption of a neighbourhood or evaluate a local energy climate plan, social landlords to evaluate thermal improvement plans, or condominiums to determine their energy consumption before considering a building renovation plan.

In terms of fuel poverty, data from smart meters will make it possible to tell the difference between overconsumption due to the housing

Increase in the energy share between 2012 and 2015 by business sector

Business sector	Increase in the energy share by 2015
Agriculture, forestry and fishing	2.5%
Extraction industries	4.4%
Manufacturing industry	3.3%
Including:	
Metallurgy	2.7%
Chemical industry	2.4%
Manufacturing other mineral products (non-metal)	3.5%
Manufacturing other mineral products (non-metal)	2.2%
Automobile industry	3.9%
Manufacturing rubber and plastic products	4.7%
Food industries	3.1%
Manufacturing IT, electronic and optical products	3.2%
Manufacturing metal products, except for machines and equipment	5.1%
Pharmaceutical industry	3.5%
Coking and refining	2.0%
Other manufacturing industries	4.8%
Water production and distribution; purification, waste management and depollution	3.1%
Construction	2.3%
Commerce; car and motorcycle repair	3.4%
Transport and warehousing	5.0%
Accommodation and catering	3.9%
Information and communication	3.3%
Financial and insurance businesses	4.4%
Property businesses	8.6%
Specialist, scientific and technical businesses	2.8%
Administrative and support services	4.3%
Public administration	4.9%
Teaching	7.8%
Human health and social action	4.0%
Arts, performance and leisure businesses	4.5%
Other service businesses	4.1%
Activities of private households as employers: undifferentiated activities of households as producers of goods and services for their own use	2.5%
Offshore businesses	5.4%

Source: 2011-2012 report by the CRE on the operation of the French retail markets for electricity and natural gas

The cost of electricity and business competitiveness

The cost of electricity is a key factor in the competitiveness of certain industrial companies. The CRE's departments are currently analysing the situation of electricity-intensive industrial companies on the French electricity market, comparing their situation with that of the same industrial companies in Germany. The analysis is as much about the energy share of the bill - which depends heavily on the ARENH price in France and prices on the wholesale market in Germany - as the transport and tax share (especially the CSPE), where various exemptions may exist and must be appraised.

In its 2011-2012 report on the operation of the retail markets, the CRE analysed several aspects of the bill for business customers in France: expected price trends for customers on the yellow and green tariffs between 2012 and 2017, an analysis of price trends during the TaRTAM/ARENH transition and an analysis by sector of expected increases in the price of electricity for existing customers already on market offers in 2012.

Prices for customers on the yellow and green tariffs between 2012 and 2017 are expected to increase by 23.7% (energy share, TURPE, sales costs and CSPE) and 16% (not including CSPE, as exemptions for some industrial companies can only be estimated on a case-by-case basis). From 2016 onward, the yellow and green regulated sales tariffs will no longer exist. From then on, the above figures reflect the level of the market offers which these customers will be able to benefit from by 2017.

Industrial consumers who exercised their eligibility prior to the enactment of the NOME law could benefit from a transitional adjustment tariff called TaRTAM. This scheme came to an end upon the entry into force of the ARENH mechanism in July 2011. The CRE has studied the impact of the transition from one mechanism to another based on a panel of 18 large industrial consumers with a total annual consumption of 25 TWh, in order to assess the consequences in terms of competitiveness for these industries. On this panel, statistical analysis showed an average gain of €0.4/MWh for all consumers under the prevailing market conditions in 2011. However, the study does highlight a contrasting situation between industrial companies whose bill is reduced, and those for which it increases.

Finally an analysis of projected electricity price increases by 2015 was carried out, by sector, for customers already on a market offer in 2012. It underlined the major disparities that exist between industrial consumers in terms of prospective increases in their electricity bills, depending on the sector of activity. The calculations were based on remote readings from professional consumers on the RTE and ERDF networks (see table p. 131). ■

itself (poor insulation) and overconsumption due to inappropriate behaviour. The support programmes will therefore be better targeted and more effective in lowering energy bills.

Experiments have been undertaken to establish the link between demand management and the provision of consumption data. In the Lyon area, for example, the Watt&Moi experiment, run by the public housing office Grand Lyon Habitat and ERDF, provides a panel of social tenants with consumption data obtained through Linky meters on a secure educational website. As part of this experiment, the CRE asked the ERDF website to clearly indicate the experimental nature of the project and its duration, and to include a note telling the consumer to contact the supplier for advice on energy demand management. In addition, ERDF was asked to arrange a consultation with local players and provide regular feedback to the consultative bodies of the CRE. At the end of the experiment, ERDF must send the CRE a report detailing the progress and results of this experiment, and reporting on the discussions with all stakeholders. The experiments with smart gas meters conducted in 2011 by GrDF among a number of consumer panels also demonstrated the benefits of having more in-depth information on consumption. A link has been established between the availability of such information and behavioural changes (turning heating down) or investment projects (replacing a boiler), which are positive in terms of energy conservation and efficiency.

Catherine Grandclément, Caroline Escoffier,

sociologists and researchers at EDF R&D

Ongoing developments in the energy sector raise questions that are not only technical. Indeed, the development of renewable energy, the transformation of networks into smart grids and the long-term increase in the cost of energy also have social and societal consequences. Catherine Grandclément and Caroline Escoffier told us their thoughts on the role that the consumer could play in this new environment, using new tools to manage energy demand.

With smart grids, we now hear the French term "consom'acteur" (meaning "consumer-player"). What does this involve?

The term "consom'acteur" refers to socially responsible consumption (organic agriculture, fair trade...). It underlines the way consumers can transform the production and marketing sectors through their own consumption choices. In the sphere of smart grids, there is an unusually great capacity for action. The term refers to the benefits that customers could derive from smart grids: more in-depth and more frequent information (including price information), the possibility to intervene, for example through load management or injecting power produced locally (photovoltaic power for example)... There is no specific definition of the consumer-player (yet). To what degree will they take the initiative? Will they be able to intervene in the network based on status information or will they content themselves with responding to a price signal? Will they be able to load-shed, store, produce, auto-consume, intervene in making energy choices? And will they be able to help define the new role that is being conferred upon them?

Is information not essential in helping consumers play a more active role in their consumption?

The integration of new information and communication technologies into the electricity network offers fabulous prospects. With regard to information on consumption, they offer many ways of improving the current situation. However, the ability to act depends on many factors other than the mere presence of information. The user-friendliness of information and the nature of the equipment available will be crucial in particular. It is often said that we must give consumers a sense of responsibility, but nowadays they are not irresponsible! Energy demand results from a complex combination of factors including laws and regulation, infrastructure, cities and buildings, markets and prices, lifestyles, household composition, income, equipment and habits. Demand management is a collective responsibility that all players, including consumers as well as other players too, must take and share.

You mentioned experiments on smart grids at the "Consom'acteur" forum organised by the CRE in April 2012. What lessons can we learn in the field of energy demand management?

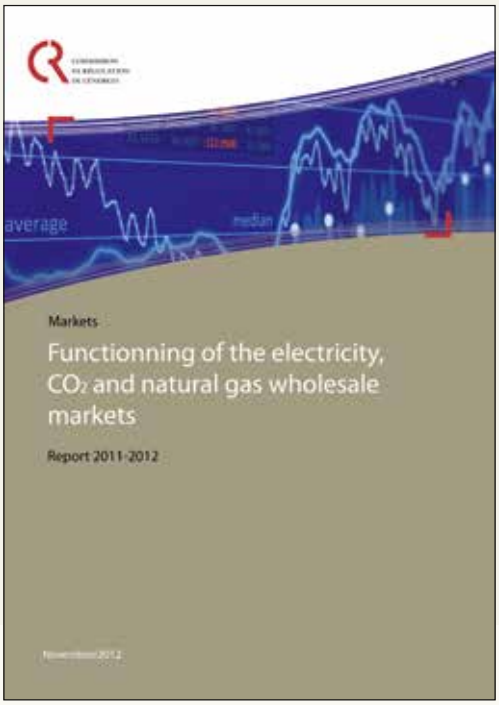
The Premio experiment in Lambesc (PACA) clearly highlighted the multiple objectives that the smart grid system can help us achieve: network management at the local or national level, limiting CO2 emissions, economic optimisation, etc. In all cases, smart grids bring more flexibility, a major virtue when one wants to develop intermittent energy. This flexibility may help us achieve some EDM goals by moving consumption to time slots which are better for power generation and the network itself. But flexibility does not mean reducing consumption. Some individuals involved in these experiments quickly noticed that managing demand requires new devices that consume energy themselves, and that in order to shed consumption, there must be surplus consumption at a particular point in time. Despite showing real promise, the smart grid will not solve the energy challenge singlehandedly: other EDM tools, including energy efficiency, remain relevant. ■

Providing access to data will require the construction of robust procedures so that consumers can collect, use and forward the data to the players of their choice. The CRE's working groups have already started work on establishing an effective system.

However, regardless of the performance of the metering system and how much data is obtained, smart meters are not a direct source of energy savings. Yet they are an essential tool for managing energy demand. An ambitious public policy of raising awareness and encouraging energy conservation will be required during the deployment of smart meters and in the years that follow. ■

APPENDICES

Sectorial reports by the CRE in 2012



REPORT ON THE FUNCTIONNING OF THE ELECTRICITY, CO_2 AND NATURAL GAS WHOLESALE MARKETS

What was the reason for this report?

As part of its mission to monitor the wholesale markets, the CRE ensures that prices on the wholesale energy markets are consistent with the technical and economic fundamentals of these markets. It publishes its investigations into players' behaviour and market events in an annual report.

Conclusions

In November 2012, the CRE published its fifth annual report on the monitoring of the energy markets. It presents and analyses developments in the wholesale markets in France in 2011 and the first half of 2012 for electricity, gas and CO_2, and includes an analysis of the price spikes that occurred on the electricity and gas markets during the cold snap in February 2012.

On the electricity market, the spot price rose slightly on average in 2011 (+3% compared to 2010). The price of the product one year on increased following the German moratorium on nuclear power before declining gradually during the second half of the year. The announcement of the moratorium also led to a reversal of the price differential with Germany, with German prices becoming more expensive until February 2012. On the gas market, the LNG supply in Europe decreased significantly due to arbitration with the Asian market, where demand rose sharply in the wake of the Fukushima accident, with gas replacing nuclear power in electricity production. Gas prices rose on average in 2011 (+30% compared to 2010), but their growth remained below that of the petroleum products on which the long-term supply contracts are indexed. The disconnect between the market price of wholesale gas on the one hand, and the price of oil and its derivatives on the other, increased from the second half of 2011 onwards.

In the first half of 2012, the development of the wholesale markets for electricity and gas stalled, with a sharp decline in volumes traded on the futures markets in particular. The cold spell of February 2012 also led to price spikes in the spot markets for electricity and gas. Finally, on the CO2 market, the EUA price fell by 10% in 2011 compared to 2010 and reached €7/t in late June 2012, in the context of an excessive supply of allowances. Given the relative price levels of coal and gas, the low allowance price encouraged European industrial companies to produce electricity from coal despite the comparative advantage of the gas industry in terms of CO_2 emissions.

REPORT ON THE OPERATION OF THE FRENCH RETAIL MARKETS FOR ELECTRICITY AND NATURAL GAS

What was the reason for this report?

The CRE ensures the correct operation and transparency of the retail markets for electricity and natural gas, which now include offers at the regulated sales tariff, where the price is set by the Government, and market offers from incumbent suppliers and new alternative suppliers. As well as its quarterly observatory, which monitors various indicators of progress in the opening up of the markets, the CRE also publishes a report on the operation of the French retail markets for electricity and natural gas, containing a comprehensive overview of the development of competition, the economic conditions of market access for the various players, and prospective analyses of price trends in regulated sales tariffs and market offers.

Conclusions

The first report by the CRE on the French retail market for electricity and natural gas covers the year 2011 and the year 2012 for some analyses.

It shows mixed results for the development of competition on the electricity retail market. On 30 September 2012, market offers accounted for a third of national consumption. While competition grew significantly in the segment of the largest consumers, it remained low for domestic customers, with over 90% staying on the regulated tariff with their incumbent supplier. For natural gas, the market was much more open to competition. On 30 September 2012, market offers accounted for nearly two-thirds of national consumption. However, as with electricity, there was an imbalance between large business sites and small consumption sites. It is difficult for alternative suppliers to offer competitive deals downstream on the retail market, compared to the regulated tariffs. Today, the structure and price levels of the regulated sales tariffs (below the incumbent operator's costs in many cases) restrict alternative suppliers' scope for development. Despite this, and thanks to relatively moderate prices on the electricity and natural gas markets, some of them offer more attractive offers than the regulated tariff. Competition therefore has a real economic benefit to consumers.

Alternative suppliers secure a supply for their customers partly via ARENH and partly via additional power purchased on the wholesale market. These conditions limit the creation of innovative, competitive offers compared to the regulated tariff. They also demonstrate the need to develop competition in the means of production, in order to promote the emergence of integrated alternative suppliers (production and supply) similar to the incumbent operator.

Based on these analyses, the CRE proposes measures to promote the correct operation and transparency of the retail markets:

- better information for consumers on the role of market players is required;
- changes in the structure and level of regulated sales tariffs for electricity and gas are required;
- the regulated sales tariffs for natural gas aimed at large consumers (from the B2S tariff onwards) should be abolished.

REPORT ON COMPLIANCE WITH THE CODES OF CONDUCT AND INDEPENDENCE AMONG ELECTRICITY AND NATURAL GAS SYSTEM OPERATORS

What was the reason for this report?

The transmission and distribution system operators for electricity and natural gas are regulated operators who fulfil public service missions for the benefit of network users and the consumers they serve. European law and French law therefore require them to be independent from their parent company, and prohibit them from discriminating against any selected supplier or user who wants to access the network. In this report, the CRE provides an assessment of the steps taken by each system operator to comply with the codes of conduct and meet these obligations.

Conclusions

In its seventh annual report on compliance with the codes of conduct and independence among electricity and natural gas system operators, published in June 2012, the CRE found a lack of awareness of distributors (distribution system operators) leading to an unfortunate confusion in the minds of consumers. The latter were unaware of the existence of distributors. Most of them confuse their public service missions with those of the suppliers.

As part of its report, the CRE conducted a "mystery shopper" telephone survey among the distributors, in order to monitor the progress they had made in responding to consumers. For most of them, the rate of objective responses that did not favour any particular supplier reached 100%, which is very satisfying. However, the answers given to consumers lacked clarity and precision. On average, 40% of the answers were unclear or incomplete. Finally, the survey results showed that, for the most part, the distributors did not spontaneously show customers that they had a choice between several suppliers.

The distinction between the visual identities and names of the parent companies, incumbent suppliers and distributors remains a major cause for concern for the CRE. It would like the independence of the distributors to be reinforced.

The similarity between the company name and logo of the electricity distributor ERDF, and those of the supplier EDF, is cause for confusion. For the gas distributor GrDF, the company name alone leads to it being confused with the supplier GDF SUEZ. The CRE asked ERDF and GrDF to submit an action plan to comply with the energy code and completely remove these confusing factors. For bills, the CRE requested that the name of the distributor be shown next to the breakdown helpline number, so that the consumer knows which entity needs to restore their electricity or gas supply.

REPORT ON INCENTIVE REGULATION IN THE AREA OF SERVICE QUALITY AMONG NATURAL GAS SYSTEM OPERATORS AND ERDF

What was the reason for this report?

The CRE monitors the operators' performance in terms of quality of service to network users. It analyses quantitative indicators which were drawn up in 2008. The most important indicators for the correct operation of the market are subject to financial incentives, bonuses or penalties, depending on whether or not operators achieve the objectives set by the CRE.

Conclusions

The third report by the CRE on incentive regulation in the area of service quality among natural gas system operators and ERDF was published in May 2012. It assesses the period between 1 July 2010 and 30 June 2011 and puts the emphasis on two key processes:

– the process of achieving reliable billing for end consumers, for the natural gas DSOs;
– connecting to renewable energy sources, for ERDF.

In gas, the CRE has seen a significant improvement in service quality since the establishment of the mechanism in 2008, all the more so given that the objectives have become steadily tougher. The processes and tools developed by the natural gas DSOs to provide reliable end-customer billing performed well. One area for improvement remains, however: the quality of metering data.

In electricity, the CRE noted that a good level of service quality was maintained, following on from the results of the 2009-2010 period, excluding the special case of connections. In this area, the results led the CRE to consider strengthening incentive regulation to encourage ERDF to increase its efforts in the area of deadlines for submitting connection proposals, and completion times for connection work.

These conclusions were taken into account when setting the GrDF's ATRD4 tariff. They will also be used by the CRE for ERDF as part of the work on the TURPE 4 tariff, for local natural gas distribution companies (LDCs) when setting their ATRD4 tariff, as well as for GRTgaz and TIGF when defining the future ATRT5 tariff. ■

The CRE's main deliberations in 2012

20 December 2012

Opinion on the draft order on regulated sales tariffs for natural gas distributed publicly by GDF SUEZ

In application of the provisions of decree no. 2009-1603 of 18 December 2009, the CRE was asked by the Ministers of the Economy and Energy for its opinion on a draft order relating to the regulated sales tariffs for natural gas distributed publicly by GDF SUEZ.

Firstly, this draft order set a new tariff formula to reflect developments in GDF SUEZ's supply costs, on the basis of which the regulated sales tariffs for public distribution (TRVG) by GDF SUEZ are calculated, and secondly, the tariffs as of 1 January 2013. These tariffs have increased by 2.1% on average compared to the tariffs that were set in the order of 26 September 2012.

The CRE restated the legal context for the TRVG, stating that the provisions of article L.445-3 of the Energy Code indicate that these tariffs are defined in terms of the intrinsic characteristics of the supplies and the costs linked to these supplies, and cover all these costs. In addition, the decree of 18 December 2009 states, firstly, that the tariffs must cover the providers' supply and other costs and, secondly, that the tariff formula should reflect the provider's supply and other costs. Finally, the CRE said that the order of the Conseil d'État and the National Association of Energy Retailers (ANODE) on SA GDF SUEZ of 10 July 2012 had specified the conditions under which these tariffs must be set by ministers.

In the draft order that was submitted to it, the CRE found that the proposed tariff formula made it possible to estimate the development of GDF SUEZ's supply costs between two tariff changes. However, the order did not set the formula to estimate GDF SUEZ's non-supply costs and therefore disregarded the provisions of the decree of 18 December 2009. In addition, the CRE noted that this formula did not take account of all GDF SUEZ's planned renegotiations for these long-term supply contracts, at the beginning of 2013, which could change the way some contracts were indexed to the market. Finally, the CRE said it would conduct a comprehensive review of the formula in the first quarter of 2013, in order to ensure it was compatible with the recorded and projected costs of GDF SUEZ's European supply portfolio.

Apart from these reservations, the CRE issued a favourable opinion on the formula contained in the draft order.

Regarding the analysis of the rates proposed on 1 January 2013, in application of the provisions of article L. 445-3 of the Energy Code and the decree of 18 December 2009, the CRE found that the tariff increase of 2.1% resulting from the proposed scales was sufficient to cover GDF SUEZ's supply and other costs as of 1 January 2013. It noted that the increase in the annual bill (inc. tax) of a residential customer with gas heating (B1 tariff) would be 28. The CRE issued a favourable opinion on the planned scales.

20 December 2012

Opinion on the draft order amending the photovoltaic tariff order of 4 March 2011

In accordance with article L.314-4 of the Energy Code and article 8 of decree no. 2001-410 on the terms of purchase of electricity generated by producers benefiting from the obligation to purchase, the CRE was contacted on 30 October 2012 by the Minister of Ecology, Sustainable Development and Energy and the Minister of the Economy and Finance regarding a draft order amending the order of 4 March 2011 laying down the terms of purchase of electricity generated by photovoltaic installations.

This order kept the structure that was in force under the previous decree, but made some changes to certain tariffs.

The CRE first of all found that the draft order does not take account of the decision of the Conseil d'État that recourse to the building usage criterion to calculate tariffs could not be justified in terms of the objectives set by article L.121-1, paragraph 2 of the Energy Code.

With regard to the date of entry into force of the tariff change, the CRE believes that there is no risk of

retroactivity so long as the change does not apply to installations where a purchase agreement has already been signed, or to installations commissioned after the planned date. The CRE concurs with the assessment of the Conseil d'État that no situation is legally binding until the purchase agreement has been signed.

In order to conduct an economic analysis of the planned tariffs, the CRE assessed the following factors:
– the internal rate of return on invested capital after tax induced by each tariff considered;
– the main tax items which will increase or decrease, directly or indirectly, the profitability of projects;
– the nature and amount of any investment grants paid by local authorities.

On this basis, the CRE estimated that the T1, T2 and T4 tariffs led to excessive profitability.

With regard to the building integration bonus, the CRE pointed out the risk of fraud created by the current allocation criteria for the "building-integrated" tariff, since a simple statement on the applicant's honour is all that is needed.

Finally, the CRE questioned the consistency and efficiency of the support mechanisms for solar power. It therefore made the following recommendations:
– amend decree no. 2000-1196 of 6 December 2000 in order to limit eligibility for the purchase obligation scheme to installations of under 100 kW for the solar power sector;
– lower the price threshold in the list of specifications of the current call for tenders for installations between 100 and 250 kWp.

The CRE also emphasised the need to give thought to introducing a scheme to encourage auto-consumption where it may benefit the power system, and does not increase public service charges.

In the light of all these factors, the CRE issued an unfavourable opinion on the draft order.

20 December 2012

Opinion on the draft order on the increase in tariffs for electricity generated by certain installations using radiant solar energy

The draft order proposed a tariff increase of 10% on the tariff previously set by the order of 4 March 2011 for photovoltaic installations of European origin.

In this opinion, the CRE emphasised the legal weakness of this plan, for two main reasons.

Firstly, the draft decree made provision for different tariffs depending on the location where the different stages of photovoltaic module production took place, offering a higher bonus to those which had been partly or entirely assembled in the EEA.

The CRE noted that:
– the draft order was not accompanied by any evidence that would make it possible to assess the usefulness of such a criterion in achieving the objectives of the Energy Code, in particular the objective of fighting greenhouse gases;
– the planned tariff bonus measure risked breaching the European principle of free movement of goods, as well as World Trade Organisation rules.

In addition, the CRE underlined the risk of fraud created by the less-than-stringent conditions for granting the bonus tariff. The draft order in fact stated that the application should be accompanied by a certificate proving that the conditions of entitlement to a bonus had been met, and a statement by the installer of the photovoltaic system, on their honour.

13 December 2012

Decision on the tariff for the use of the natural gas transmission networks

The Energy Code, which entered into force on 1 June 2011, now empowers the CRE to set out the methods for establishing the tariffs for the use of the natural gas transmission networks (article L. 452-2).

The deliberation of 13 December 2012 defines the method for setting tariffs for the use of the natural gas transmission networks, and sets the so-called «ATRT 5» tariffs, which are scheduled to apply from 1 April 2013.

During the tariff-setting process, the two transporters made requests for new tariffs that led to the following increases:
– for GRTgaz, a 20.7% increase for the first year, then an average increase of 4.4% per year between 2013 and 2016;
– for TIGF, a 13.7% increase for the first year, then an average increase of 8.7% per year between 2013 and 2016.

In setting the new tariffs, the CRE took account of the legislative and regulatory changes linked to the third energy package, including the independence requirements for transporters, the Gas target model adopted by the European regulators, the future network code on capacity allocation and the guidelines on congestion management that the French TSOs will have to follow.

The CRE involved all market players in preparing these new tariffs as part of the Concertation Gaz, including five public consultations, two workshops and a round table discussion.

In addition, the CRE arranged hearings for TIGF and GRTgaz as well as any shareholders who requested one.

Finally, the CRE took account of the energy policy guidelines communicated by the Minister of Ecology, Sustainable Development and Energy.

The CRE has kept the existing regulatory framework while encouraging TSOs to improve their effectiveness in controlling costs and quality of service. The CRE monitors the performance of operators in terms of quality of service to network users through the analysis of quantitative indicators. The most important indicators for the correct operation of the market are subject to financial incentives, bonuses or penalties, depending on the achievement of objectives set by the CRE. Incentives to control investment programme costs have also been introduced into the ATRT5. It includes, firstly, an incentive to make the necessary investments to improve the operation of the French market and its integration into the European market and, secondly, an incentive to control investment project costs.

With regard to tariff structure, the CRE had made some changes, linked firstly to the merging of PEG H and L on 1 April 2013, and secondly to the creation of a joint PEG for GRTgaz South and TIGF, starting from 1 April 2015, although this does not rule out the possibility of maintaining a separate balancing zone.

Finally, the CRE set the following tariff levels:
– for GRTgaz, an 8.3% increase in 2013 and then an increase of 3.8% per year from 2014 onwards;
– for TIGF, an 8.1% increase in 2013 and then an increase of 3.6% per year from 2014 onwards.

The tariff increases set for 2013 will apply from 1 April 2013 until 31 March 2014.

The tariff increases are explained by rising capital costs, rising energy purchase costs, the transposition of directive 2009/73/EC and rising taxes and social contributions.

The differences between this tariff and those requested by the TSOs are mainly linked to the decrease in the weighted average cost of capital, now fixed at 6.50% real before tax versus 7.25% previously, the revised hypotheses for certain items of expenditure, the productivity objectives set for both TSOs, and the increase in capacity subscriptions.

13 December 2012
Decision on the tariffs for regulated LNG terminals

The Energy Code, which entered into force on 1 June 2011, now empowers the CRE to set out the methods for establishing tariffs for the use of liquefied natural gas installations (article L. 452-2). The CRE also deliberates on tariff changes, taking account of changes in tariff levels and structures where it sees fit (L. 452-3).

The deliberation of 13 December 2012 defines the methods and sets the tariffs for the use of regulated LNG terminals, applicable from 1 April 2013 for about four years. Operators' requests to implement new tariffs for the LNG terminals they operated led to the following developments:
– a 13% increase in the average unit tariff for the ATTM4 period, in current euros for the Montoir terminal;
– a 15% increase in the average unit tariff for the first two years of the ATTM4 period, in current euros for the Fos Tonkin terminal;
– and a 24% increase in the average unit tariff for the ATTM4 period, in current euros for the Fos Cavaou terminal.

On the basis of its own analyses and an external audit, as well as audits by the operators and a public consultation, the CRE renewed and added to the existing regulatory framework to encourage operators to improve their effectiveness in terms of cost control. It introduced incentives to control investment project costs and a rendez vous clause whereby, after two years, the trajectory of operators' net operating costs for 2015 and 2016 may be adjusted under certain conditions. The fee schedule of the Fos Tonkin terminal is set for about two years, reflecting the decision to maintain this infrastructure in the long term.

The tariff structure is changing, especially with the payment obligation for subscribed capacity and the moderate increase in the terms of docking being increased to 100%.

Regarding the level of the operators' tariffs, the CRE decided on the following:
– a 4% increase in the average unit tariff for the ATTM4 period, in current euros for the Montoir terminal;
– a 10% increase in the average unit tariff for the first two years of the ATTM4 period, in current euros for the Fos Tonkin terminal;
– and a 12% increase in the average unit tariff for the ATTM4 period, in current euros for the Fos Cavaou terminal.

The differences between the level set by the CRE and the tariffs requested by the TSOs can be explained by the decrease in the weighted average cost of capital to 6.50% real before tax, the specific bonus for the LNG terminal operation being held at 200 base points, and the revised hypotheses for certain items of expenditure.

These increases are explained by the fall in subscription capacity at the three terminals and the rise in certain operating costs. These increases are nonetheless contained by the decrease in average weighted capital costs and the increase in ship or pay from 95% to 100%.

11 October 2012

Decision on the approval of contracts between GRTgaz and the vertically integrated company as part of the independence requirements set out in the Energy Code

In its decision of 26 January 2012, the CRE certified that the GRTgaz company complied with the independence rules set out in the Energy Code.

In application of articles L.111-17 and L.111-18 of the Energy Code, the CRE examined the requests to approve the contracts between the TSOs and the vertically integrated company (VIC).

Article L.111-17 states that all commercial and financial agreements between the TSO on the one hand, and the VIC or any company controlled by it on the other, must adhere to market conditions and be submitted to the CRE for approval.

Article L.111-18 states that the VIC is prohibited from providing services for the benefit of the TSO, with the exception of those involving resources strictly necessary to the TSO's activities and to ensuring the proper adjustment, balancing, safety and security of its network. These services must also comply with the neutrality conditions defined in the second paragraph of article L.111-18 as well as the conditions applying to commercial and financial agreements (adherence to market conditions and approval by the CRE).

The TSO is allowed to provide services for the benefit of the VIC, provided they do not give rise to any discrimination between network users, they are accessible to all users on the network and they do not disrupt the competition in terms of production and supply.

Several contracts have been concluded between GRTgaz and the VIC, or have been amended or renewed, since the certification decision of 26 January 2012.

Through this deliberation, with regard to the requirement for independence between the TSO and the VIC, the CRE approved the commercial, financial and service delivery agreements[1] between GRTgaz and the VIC which were submitted to it, with the exception of an agreement on

1 – This refers to the following documents: Draft amendment to the framework agreement for financing; Loan agreements between GRTgaz and GDF SUEZ; Agreement to support the development of natural gas; Amendment to the contract for research conducted by the centre for expertise in research and economic modelling at GDF SUEZ; Renewal of the research agreement on industrial assets; New study and research agreements with the centre for research and innovation in gas and new energies at GDF SUEZ; Electricity supply contract to supply delivery stations; Amendments to the service and assistance agreement in the areas of commercial procurement, IT and telecommunications; Amendments to connection services for customers who have not signed connection contracts; Amendment to the agreement on managerial services; Renewal of the contract on the distribution of social charges; Amendment to the provision of technical training in the operation and maintenance of transmission structures.

the provision of support for the development of the natural gas. In this case, it considered that the agreement was not necessary for security, balancing or network safety, and therefore could not benefit from the special regime provided for in article L.111-18 of the Energy Code. The CRE asked that it be terminated no later than 31 December 2012.

Furthermore, the CRE expressed the wish that in the future, any new request to approve a service delivery agreement should be accompanied by documents showing that alternative solutions have effectively been considered.

Following the deliberations of 26 January 2012 on the certification of the transport system operators RTE, GRTgaz and TIGF, in 2012, the CRE passed 9 decisions on the approval of contracts between TSOs and the VIC[2].

9 October 2012

Approval of the experimental rules on participation in the balancing mechanism, as part of the experiments in the Brittany region

Brittany is in an increasingly vulnerable position when it comes to energy, due to several factors:
– its peninsular location;
– its low electricity production (only 8% of consumption);
– high demographic growth and dynamic economy, meaning its needs are proportionately greater than elsewhere in France, despite currently consuming less energy than the rest of the country.

To meet these challenges, a Breton electricity pact was signed by the regional prefect, the President of the Regional Council, the President of the ADEME, the President of RTE and the Director General of the ANAH.

The pact covers three areas: managing electricity consumption, developing renewable energy and securing the electricity supply.

To continuously maintain the balance between supply and demand on the network, the RTE must have a reserve so it can adjust power up or down in real time. It therefore asked producers and consumers connected to the network to change their intended plan of operation very quickly. This is the role of the balancing mechanism. In this context, the RTE proposed an amendment, on an experimental basis, to the rules on planning, the balancing mechanism and the balance manager's system.

Under these experimental rules, RTE proposed to lower the threshold for contracted entities to participate in the balancing mechanism from 10 MW to 1 MW, for the experiment in the Brittany region. The experimental rules also enable the load management capacities on the public transmission network to participate in the balancing mechanism.

The CRE noted that the experiment conducted by RTE should help to resolve the congestion experienced in Brittany in winter 2012-2013.

The CRE also emphasised that these experimental rules should help with monitoring the achievement of objectives, developing capacity on the distribution network and involving the operators of the relevant network, by testing new processes whose effectiveness will be analysed by looking at feedback from the experiment.

The CRE therefore approved the experimental rules on participation in the balancing mechanism as part of the experiment in the Brittany region. These rules were in force from 1 November 2012 to 31 March 2013.

25 September 2012

Opinion on the draft order setting regulated sales tariffs for natural gas distributed publicly by GDF SUEZ

In application of article 5 of decree no. 20091603 of 18 December 2009, the CRE was asked for an opinion by the Ministers of the Economy and Energy, regarding a draft order establishing the regulated sales tariffs for natural gas distributed publicly by GDF SUEZ. These scales are reviewed at least annually and revised as appropriate, reflecting changes in the tariff formula in particular.

2 – See: the CRE deliberation of 13 December 2012 approving two availability contracts relating to the Balancing mechanism signed by EDF and RTE; CRE deliberation of 13 December 2012 approving a contract for services linked to network reconstitution and voltage recovery, signed by RTE and EDF; CRE deliberation of 2 October 2012 approving a sub-letting contract relating to parking spaces, signed by RTE and EDF; CRE deliberation of 15 May 2012 approving a contract for the RTE to join the EDF group's insurance schemes, and an agreement between RTE and EDF Assurances.

While the aim of directive 2009/73/EC is to create a European gas market which is competitive, safe and environmentally sustainable, the ECJ, in a Federutility decision of 2 April 2010, reminded us that under certain conditions, it is possible for Member States to introduce regulated tariffs to protect end consumers and help achieve the aim of creating competitive market.

In addition, the Conseil d'État, in an order on SA GDF SUEZ and the National Association of Energy Retailers dated 10 July 2012, specified that when revising the regulated tariff scales, it is the duty of the relevant ministers to *"ensure that the resulting tariff level is sufficient to cover the average cost of supplying natural gas in full, as determined according to the formula set out in the order, and to offset any significant discrepancy between tariffs and cost, where appropriate, at least during the past year, as well as checking whether there are grounds for taking the estimated growth of this cost into account for the year to come, depending on the information available to them when making their decision"*.

The order on which the CRE was asked to give its opinion foresaw a tariff increase of 2%.

The CRE noted firstly that this increase was not enough to cover supply and other costs on 1 October 2012. Secondly, the CRE considered that there was no need to take account of any compensation for the difference between tariffs and costs during the past year. Finally, the CRE noted that the information available suggested a future increase in GDF SUEZ's supply costs.

The CRE therefore concluded that the 2% increase in the regulated tariffs was insufficient to cover GDF SUEZ's estimated supply costs on 1 October 2012. The CRE also stressed that the scale envisaged maintains the distinction between different consumers. The CRE said that this differentiation, introduced on 1 July 2011 and maintained in subsequent tariff changes, was not justified by a difference in intrinsic supply costs. All consumption characteristics being equal, the costs to be covered are in fact the same, whether a building is for residential or business use. The CRE issued a negative opinion.

26 July 2012

Opinion on the Ministry of Energy's planned choice of bids following the call for tenders to build and operate solar power generation facilities with a peak power of over 250kW

And

Opinion on the Ministry of Energy's planned choice of bids following the call for tenders to build and operate building-mounted photovoltaic installations with a peak power between 100 and 250 kW - 2nd period

The Minister of Ecology, Sustainable Development and Energy arranged a call for tenders for power generation facilities, firstly to build and operate building-mounted photovoltaic installations with a peak power between 100 and 250 kW, and secondly to build and operate solar power generation facilities with a peak power of over 250 kW.

The CRE gave its opinion on the choice of bids received in response to these two tenders. The first call for tenders followed an accelerated procedure and scoring of candidates was based solely on the price criterion.

The second call for tenders, on the other hand, followed the regular procedure.

For the first call for tenders, 452 applications were submitted in three categories (category 1: building-mounted installations, category 2: ground-mounted facilities using innovative technologies and category 3: ground-mounted facilities using mature technologies) and 7 subcategories, with 83 declared incomplete after some were reinstated. The 342 complete applications represented a total capacity of 2,016.8 MWp at a weighted average price of €213.4/MWh.

The CRE issued a positive opinion on the Minister of Energy's planned choice regarding subcategories 1, 3 and 5, to the extent that this choice matched the classification established by the CRE.

Regarding subcategory 2, the CRE noted that the Minister intended to select an incomplete bid.

Finally, regarding subcategories 4, 6 and 7, he intended to select projects above the target power, for which there was no provision in the list of specifications. The CRE therefore issued an unfavourable opinion on this

last choice for projects above the target power, and a favourable opinion on the other projects selected in this subcategory.

Regarding the second call for tenders, 227 applications were received for a power of 47 MW, and the 138 which were selected as admissible were forwarded to the Ministry of Energy.

In accordance with the possibility offered by the list of specifications, the Minister planned to only select 109 projects for a total power of 20.9 MW, below the total power that was sought.

The CRE issued a favourable opinion on this choice, underlining the fact that the weighted average sale price for the selected projects stood at €217.7/MWh, i.e. 70 million euros over twenty years.

26 July 2012

Communication on single contract customer management

The deliberation stated that the Consumer Code and the Energy Code make provision for a «single contract» for the distribution and supply of electricity to consumers, and a contract to access the distribution network signed by a system operator and a supplier.

The Paris Court of Appeal, in its order of 29 September 2011, found that «when [the suppliers] are performing tasks or incurring costs while serving an end customer on behalf of the system operator, under a GRD-F contract, the suppliers must be placed in an equivalent situation to the system operator under a CARD contract".

The aim of the service delivery contract offered by Poweo Direct Energie is to provide a framework for the operational and financial conditions under which the company ERDF pays a fee to the supplier for managing single contract customers, while restoring an equivalent economic situation to that which would apply if ERDF were to provide these services itself, the mechanism being applicable as long as the provider does not benefit from sufficient economies of scale.

The CRE, which does not have the authority to approve these contracts, nonetheless examines the project as part of its monitoring mission.

To do this, the CRE checks for three cumulative conditions used by the Competition Authority when approving similar asymmetric regulation mechanisms, namely:
- the most recently arrived operator is seen to be at an objective disadvantage;
- the regulation compensating for the disadvantage is of a temporary nature;
- and the dissymmetry thus organised is proportionate to the difference in situation.

The CRE notes that the draft service delivery contract between ERDF and Poweo Direct Energie meets these three criteria because there is objective evidence tending to show that the cost of managing Poweo Direct Energie's customers is higher than that incurred by the incumbent operator, that the contract is for a limited period of time, and that the contractual arrangements only apply until the new entrant reaches the threshold of 1.75 million end users on a single contract.

19 July 2012

Guidelines on the development of gas marketplaces in France

The French gas market now has three wholesale marketplaces: the PEG North and South on the GRTgaz network and the PEG TIGF.

Reducing the number of PEGs has been a major factor in improving the operation of the French gas market.

However, while the PEG North enjoys a satisfactory level of liquidity and competition, this is not the case with the PEG South and TIGF. Moreover, the beginning of 2012 was characterised by significant price differences between the North on the one hand, and the South and TIGF on the other.

The CRE wishes to continue with the integration of the marketplaces to improve the operation of the gas market, particularly in the south of France. Thus, there have been studies into the possible creation of a joint PEG South-TIGF and the creation of a single PEG GRTgaz.

As a result of the public consultation conducted by the CRE, a vast majority of players are in favour of a consolidation of the PEGs, leading to the eventual creation of a large PEG France, which the CRE would also like.

Moreover, a large majority of contributors considers that the creation of a single PEG GRTgaz is a priority. The use of contractual mechanisms to create a single PEG GRTgaz would lead to significant risks in terms of supply security, the costs incurred and the operational implementation of flow commitments. The CRE wants a PEG North-South to be created by 2018 at the latest, based on the doubling of the Burgundy artery. To this end, the CRE has asked GRTgaz to carry out the technical studies necessary for this investment, while the CRE conducts a cost-benefit study to define the optimal level of investment required.

Almost all of the contributors believe that the PEG TIGF is not big enough to be an efficient and sustainable marketplace, and the vast majority want a large PEG South combining the PEG GRTgaz South and TIGF to be effective by 2015. The CRE takes the same position as these players regarding the PEG TIGF and market coupling. It considers that a large PEG South must be implemented by 2015 at the latest, with a view to ultimately creating a single marketplace for France. It believes that a Trading region-type system, as set out in the Gas target model for merging marketplaces while maintaining different balancing zones, would meet this objective and, at the request of TIGF, would make it possible to avoid sharing shipper imbalance management with GRTgaz. The CRE asked TIGF and GRTgaz to propose terms for creating this joint PEG by 15 October 2012.

Finally, the CRE welcomed the proposal by TIGF and Enagas to introduce market coupling with the Iberian Peninsula.

17 July 2012

Opinion on the draft order setting the regulated sales tariffs for gas distributed publicly by GDF SUEZ

In application of article 5 of decree no. 20091603 of 18 December 2009, the CRE was asked for an opinion by the Ministers of the Economy and Energy, regarding a draft order establishing the regulated sales tariffs for natural gas distributed publicly by GDF SUEZ. These scales are reviewed at least annually and revised as appropriate, reflecting changes in the tariff formula in particular.
See opinion of 25 September 2012, p. 144, regarding the applicable legal framework.

The order on which the CRE was asked to give its opinion foresaw a tariff increase of 2%.

The CRE noted that the increase in GDF SUEZ's supply costs, evaluated using the formula between 1 January 2012, the date of the last tariff change, and 1 August 2012, corresponds to an average tariff increase of +4.1%. The inclusion of non-supply costs would require the regulated sales tariffs to be increased by another 3.2%.

The data available to the CRE led it to the conclusion that tariffs were not overvalued in 2011 or in the first half of 2012. In addition, while GDF SUEZ's supply costs may reduce, as the forecast prices of petroleum products are down, the impact of this decline does not permit the tariff increase to be limited to 2% as set out in the draft order.

The increase in regulated sales tariffs under the draft order was not sufficient to cover the costs of GDF SUEZ. Consequently, the CRE issued an unfavourable opinion of the draft order submitted to it.

28 June 2012

Decision on setting tariffs for ancillary services provided by natural gas distribution system operators

In accordance with articles L. 452-2 and L. 452-3 of the Energy Code, which entered into force on 1 June 2011, the CRE has the authority to set tariffs for so-called "ancillary" services by the natural gas distribution system operators. The CRE deliberation sets out the tariffs and the methods for setting ancillary service tariffs.

This deliberation considers the issue of how gas cut-offs are funded in particular. This is a neutral matter for DSOs: the costs associated with these services are covered, either by billing the supplier of the client whose bill is unpaid, or by ATRD tariffs which apply to the suppliers using the networks managed by the distributors. However, it is not neutral for suppliers, since the price of this service cannot always be passed on or recovered, especially in the case of customers in financial difficulty.

Furthermore, the CRE:
– retained the principle of allowing the cost of some ancillary services by DSOs to be covered in part or in full by the ATRD tariffs;

– homogenised definitions, delivery times and, where applicable, billing prices for all gas DSOs, for services which are essential to the correct operation of the market
– kept the supplier-initiated disconnection service free of charge;
– reduced the price of the disconnection service for unpaid bills for gas DSOs by aligning it with the price of the same service for electricity, i.e. €42.09 exc. tax on 1 September 2012 instead of €80.08 exc. tax. Regarding GrDF, the cost of this considerable decrease in the bill in favour of customers with unpaid bills will be funded by an increase of around 0.3% in the ATRD4 distribution tariff received by the operator from all the suppliers. This increase should be passed on to all customers, through the regulated sales tariffs in particular.

In addition, after consulting with the players, the CRE defined drafting and tariff-setting principles for ancillary services delivered exclusively by the natural gas DSOs.

Thus, this deliberation has made changes to the service catalogues, with the following aims:
– to make it easier for suppliers and end customers to access DSOs' services through a gradual homogenisation of operators' service catalogues, in terms of defining the proposed services and the price levels for services essential to the correct operation of the market;
– to develop service prices through the mechanical application of indexation formulas;
– to take account of DSOs' specific requests regarding changes to their catalogue.

26 June 2012

Communication on the gas price spikes in early February 2012

In application of the provisions of article L.131-2 of the Energy Code, the CRE is charged with the mission of monitoring the wholesale markets for electricity and natural gas.

This monitoring mission now operates under the EU regulation known as REMIT, relating to the transparency and integrity of the wholesale energy markets. In force since 28 December 2011, REMIT prohibits market manipulation and insider trading on the wholesale energy markets.

As part of this mission, the CRE systematically analyses spikes in electricity and gas prices. It therefore conducted research on the gas price spikes which occurred in February 2012. Its findings appear in Part 2 of the dossier called L'Europe de l'énergie à l'épreuve du pic de froid de février 2012. Areas for improvement and the CRE's recommendations for improving the operation of the gas market appear at the end of Part 3 of the same dossier.

29 May 2012

Guidelines on the creation of a single North marketplace for H and L gases on the GRTgaz network

GRTgaz's low calorific value gas (L gas) network in northern France is separate from the high calorific value gas (H gas) network.

Following the request of a majority of players at a public consultation, in January 2011 the CRE asked GRTgaz to make a feasibility study of the contractual merger of the H and L perimeters in 2013.

Based on the work of GRTgaz, the CRE held a public consultation from 29 March to 23 April 2012.

The CRE intends to merge the H and L contractual balancing perimeters on 1 April 2013. As the networks are physically separate, this merger will have to be accompanied by measures to ensure balance is maintained on the L gas network.

A single PEG North will be created by combining the former PEG North L and North H. The imbalances of shippers who are active on the H and/or L network in the North Zone will be calculated on the scale of a single balancing perimeter.

GRTgaz will provide a basic H to L conversion service which will no longer be billed directly to shippers. In addition, GRTgaz will have to continue using an H and L gas exchange service to physically balance the L gas network. The terms of the cost impact of this provision will be determined in the next transmission tariff. Under the service delivery contract, the provider of the H to L gas exchange service is still required to supply L gas to its own customers who are connected to the L network.

GRTgaz will implement and subsequently charge a tariff for the contractual conversion of L gas to H gas to any shipper on the L network using the Taisnières B interconnection point, the Sediane B storage facility or physical tools (peak converter and adapter) for converting a quantity of L gas greater than the total consumption of its customers connected to the L network. A tolerance will be specified and the tariff should be around €1/MWh.

As a last resort, where the physical balance of the L network demands it, GRTgaz will be able to require shippers with capacity on the physical infrastructures of the L network to modify their nominations on these infrastructures upwards or downwards, while fulfilling their general balancing requirement on the combined H and L perimeter.

The service to physically convert L gas into H gas will be accessible to shippers who bring their own L gas from the PIR Taisnières B or the PITP.

In order to finalise the operational terms of how this change will be implemented, the CRE asked GRTgaz to forward its proposals for the level of tolerance associated with the tariff for the contractual conversion of L gas to H gas, and for the rules on modifying shipper nominations.

10 May 2012

Communication on the electricity price spikes of 9 and 10 February 2012

In application of the provisions of article L.131-2 of the Energy Code, the CRE is charged with the mission of monitoring the wholesale markets for electricity and natural gas.

This monitoring mission now operates under the EU regulation known as REMIT, relating to the transparency and integrity of the wholesale energy markets. In force since 28 December 2011, REMIT prohibits market manipulation and insider trading on the wholesale energy markets.

As part of this mission, the CRE systematically analyses spikes in electricity and gas prices. It therefore conducted research on the electricity price spikes which occurred in February 2012.

Its findings, as well as its recommendations to EPEX SPOT on the operational level, appear in Part 2 of the dossier called L'Europe de l'énergie à l'épreuve du pic de froid de février 2012.

9 May 2012

Decision on the conditions of connection and access to the public transmission network for new interconnections mentioned in article 17 of regulation (EC) no. 714/2009 of 13 July 2009

In this deliberation, under the provisions of article 8 of L. 134-1 of the Energy Code, the CRE set out the conditions for the drafting of the transitional connection rules by the transmission system operator, as well as the procedure for processing network connection requests for the new interconnections mentioned in article 17 of regulation (EC) no. 714/2009 of 13 July 2009, that is to say interconnections with transmission networks in neighbouring countries.

When connecting all the facilities mentioned in Article L. 342-5 of the Energy Code, including new interconnections, which are technically «interconnection circuits» within the meaning of this article, operators must comply with the principles of objectivity, non-discrimination and transparency.

To ensure compliance with these principles, the CRE reminded the TSOs that before publication, the rules governing the technical conditions for connection should be the subject of a consultation with the different categories of users and a notification to the CRE. The CRE indicates that the procedure for processing connection requests for new interconnections could be modelled on the procedure for processing connection requests for production facilities.
The CRE said that the specific nature of the new interconnections justifies not applying the tariff for the use of the public electricity transmission network (TURPE), and that the contribution made by an applicant towards the cost of connection can only cover the cost of connection and extension at most, which excludes the cost of reinforcing the network.

Finally, the CRE set out the conditions under which the connection agreement may place temporary limits on the amount of power injected and/or withdrawn

by the new interconnection, as well as the terms of compensating the operator of the new interconnection.

29 March 2012

Communication on the application of article 17 of regulation (EC) no. 714/2009 of 13 July 2009

Article L. 321-6 of the Energy Code gives the public electricity transmission system operator the mission of developing the public transmission network, in order to allow interconnection with the transmission networks of other European countries in particular.

Article 17 of Regulation (EC) No. 714/2009 of the European Parliament and of the Council of 13 July 2009, on conditions of access to the network for cross-border electricity trading, sets the criteria according to which a new interconnection may, by request and for a limited time, be exempt from all or part of the regulations in force, in terms of separation of the transmission networks and the operators of these networks, third party access, approval of tariff-setting methods and allocation of revenues from the allocation of interconnection capacity.

In application of article 17 of regulation no. 714/2009, the national regulator has the authority in principle to investigate requests and decide whether exemption should be granted.

The deliberation specifies the procedure for granting such an exemption by the CRE and thus updates the deliberation of 30 September 2010 on the application of article 7 of regulation (EC) No. 1228/2003 of 26 June 2003, and the terms of access to the French public electricity transmission network for the exempted new interconnections. If focuses in particular on what information must be included in the request for exemption, and the way in which the CRE will assess the criteria for granting exemption. This information may be supplemented and adapted according to the specificities of each request for exemption.

When drafting this deliberation, the CRE took account of the views expressed by electricity market players on the conditions for exemption during the public consultation carried out during the months of August to September 2011.

22 March 2012

Assessment and guidelines for the work of the consultation bodies relating to the operation of the retail markets for electricity and gas

The Consumers Working Group (CWG), the Electricity Working Group (EWG) and the Gas Working Group (GWG) were created in 2005 by the French Energy Regulatory Commission (CRE) to define and monitor the introduction of the rules on the operation of the retail market for electricity and gas. They encompass all the players concerned: consumer representatives, suppliers, system operators and public authorities.

Since their creation, these groups have worked under the aegis of the CRE to define the operational procedures shared by all professionals in the sector.

Nearly five years after the markets were completely opened up to competition, the outcome is positive. In fact, the procedures in place (changing supplier, new contracts, termination etc.) have proved to be robust and effective, and have been integrated into the information systems. From now on, the work done by these groups is part of a strategy of continuous improvement (gradually reducing the time it takes to change supplier, correcting the supplier change indices, improving the data provided to the balancing managers...).

In its deliberation of 22 March 2012, the CRE firstly drew up an assessment of the main work done by the consultation bodies in 2010 and 2011, and secondly put forward a new organisational structure for its consultation groups, in order to effectively deal with the impact of smart meters on the operation of the markets, and establish guidelines for the working groups' future activities.

Finally, despite certain differences linked to the specific features of the two energy sources, the CRE deemed that in order to develop competition and improve consumer satisfaction, the operation of the gas and electricity markets had to be harmonised. This harmonisation particularly concerns procedures and the deployment of smart meters seen by customers. The relevant working groups will therefore have to take account of this objective in their work.

22 March 2012

Opinion on the Ministry of Energy's planned choice of bids following the call for tenders to build and operate building-mounted photovoltaic installations with a peak power between 100 and 250 kW - First period

This call for tenders is organised following the "accelerated" procedure as defined in decree no. 2002-1434, that is to say, electronically in order to reduce waiting times. The only scoring criterion is the price proposed by the bidder.

345 applications were submitted before the deadline, for a power of 68 MW.

On 15 March 2012, the CRE sent the Minister of Energy a list of the 218 admissible projects, in descending price order, for a total power of 45 MW and an average purchase price of €229/MW.

The CRE issued a favourable opinion on this choice, which was in line with the list drawn up by the CRE.

28 February 2012

Decision on the equalised tariff for the use of the GrDF's public natural gas distribution networks

The equalised tariff for use of GrDF natural gas distribution networks, known as the «ATRD3 tariff» (ATRD meaning third party access to distribution networks), came into force on 1 July 2008. It was intended to apply for a period of four years. In a letter dated 28 July 2011, GrDF asked the CRE to establish a new tariff for use of its natural gas distribution networks.

In accordance with articles L.452-2 and L.452-3 of the Energy Code, after consultation with the Supreme Council of Energy on 21 February 2012, the CRE defined a new equalised tariff for the use of GrDF's public natural gas distribution networks, known as the "ATRD4 tariff", intended to apply for a period of about four years from 1 July 2012.

To set this tariff, the CRE held a public consultation from 11 October to 4 November 2011 and organised hearings for natural gas suppliers on the GrDF network. In addition, it conducted extensive analyses of GrDF's projected charges, and also listened to GrDF at repeated hearings. Finally, the CRE conducted a comparative study of transmission tariffs on the European natural gas distribution network.

Based on this information, the CRE decided to renew the existing regulatory framework for the ATRD3 tariff, making some changes and additions, to encourage the operator to improve their efficiency, in terms of cost control as well as the quality of the service provided to its network users:

- a tariff period of around four years, with a predetermined tariff trajectory that will change on 1 July of every year;
- a mechanism to correct any discrepancies between forecasts and actual outcomes for certain items of expenditure, which are difficult for GrDF to predict;
- a mechanism to monitor service quality, modified by introducing financial incentives for indicators which are linked more closely to the quality of the service provided to end consumers and a reduction in the total number of indicators;
- the introduction of a mechanism to encourage GrDF to control the costs of its investment programmes, excluding investments in safety and mapping;
- the introduction of a rendezvous clause at the end of two years, to adjust the trajectory of GRTgaz's net operating charges for the years 2014 and 2015, upwards or downwards, when certain conditions are met.

The advantage of this regulatory framework is that it gives more visibility to the tariff development trajectory and therefore helps reduce the risks to GrDF.

The ATRD4 tariff thus defined by the CRE is intended to come into force on 1 July 2012. It makes provision for an increase of 8.0% in current euros on this date, compared to the current tariff, i.e. around 6% in constant euros. For the period of 2013 to 2015, the CRE has based the annual increase in GrDF's tariff list on a percentage variation equal to "inflation + 0.2%".

Given the proportion of the distribution network transmission tariff in the final sale price of natural gas, this increase would, all things being equal, lead to a 2% increase in the regulated sales tariff for public distribution on 1 July 2012, for an average domestic customer using gas for heating (B1 tariff customer in the Paris area). ■

The main deliberations of the Standing Committee for Disputes and Sanctions (CoRDiS - Comité de règlement des différends et des sanctions) in 2012

28 January 2013

Novawatt and X / RTE
Request for precautionary measures for the provision of metering data relating to the activities of a balancing entity

The balancing mechanism is a market mechanism whereby producers and consumers offer to vary their production and consumption to enable RTE to balance production and consumption on the network, which must be strictly equal at all times.

To secure some of the offers on this market mechanism, RTE organises calls for tenders to contractualise producers' balancing reserves, the quick access and additional reserves. On 8 November 2012, RTE launched a consultation on 200 MW of quick access reserves and 100 MW of additional reserves for the period of 1 April 2013 to 31 March 2014. The deadline for submission of tenders was set by the consultation regulation on 29 January 2013 at 12 o'clock.

On 10 December 2012, a producer and their balancing manager, who wished to participate in the RTE call for tenders, applied to RTE to be qualified as a quick access reserve. Tests to validate the qualifications of installations wishing to participate in the RTE's call for tenders could take place until 10 January 2013.

An installation that does not yet have a certificate of aptitude can acquire one, either by participating in the balancing mechanism, provided that it demonstrates its ability to supply the product under the required conditions during the inspection, or by successfully performing test activations at the request of RTE.

The RTE rejected the producer's application for qualification, but did not forward the metering data which its refusal was based on. On 25 January 2013, the producer then contacted CoRDiS to ask RTE to send this data before the call for tenders closed, as a matter of urgency, in order to make sure that it had the technical abilities to participate in such a call for tenders.

In its decision of 28 January 2013, the CoRDiS first noted that the dispute was well within its jurisdiction, given that the producer's inability to participate in the RTE call for tenders, which ended the next day 12 o'clock, was likely to constitute a serious and immediate breach of the rules governing network access and usage, in particular the principle of transparency in public consultations organised by a public system operator.

It then noted that there was no justification for RTE's refusal to share its metering data, even though it had done this in the past.

Finally, CoRDiS ordered the RTE to provide this data before 9 o'clock the next day, to put an end to a serious and immediate breach of the transparency principle, which RTE did within the required timeframe.

22 October 2012

Crampon wind farm and Puchot wind farm / ERDF
Conditions for connecting two wind power generation facilities to the public electricity distribution network

In this case, the Standing Committee on Disputes and Sanctions was contacted by two wind power producers who were involved in a dispute about the connection of their installations.

The Committee first stated that a report produced by one of the parties after being summoned to attend the Committee's public meeting must be kept separate from the discussions, under article 8 of the decision of 20 February 2009 on the internal regulations of the Standing Committee on Disputes and Sanctions.

In substance, when asked about transparency in processing the companies' connection request, CoRDiS deemed that under the provisions of the decree of 28 April 2008, when it receives a request to connect to the public distribution network, the public distribution system operator (DSO) is required to proceed in a transparent, non-discriminatory manner in establishing the technical and financial proposal, and therefore, it is their responsibility to supply the applicant with all the information they need to assess the merits of the solutions it recommends.

Thus, when the DSO is required to ask questions of the public transmission system operator (TSO) in relation to a connection request, the DSO must ensure that the TSO answers the questions put to it and make sure that the answers provided allow it to provide useful information to the applicant.

CoRDiS also said that the benchmark connection solution is one which, in accordance with the order of 28 August 2007, minimises the total cost of building the connection and extension structures, and therefore the cost of improvement work and completion times cannot be taken into account.

Finally, CoRDiS stated that under the provisions of article 5 of the order of 28 August 2007, while a different solution to the benchmark connection solution can be put in place, the cost difference between this solution and the benchmark connection solution will be borne by the person who initiated the process, that is to say either the system operator or the user.

2 July 2012

TOURTELEC / ERDF
Conditions for taking readings from a metering device

The Standing Committee for Disputes and Sanctions recently received an application to enforce a settlement agreement between a producer and the company ERDF, regarding the terms for taking readings from a metering device at a hydro-electric plant.

CoRDiS stated in this decision that under the provisions of article L. 134-19, it could only resolve disputes:

1° Between operators and users of public networks for the transmission or distribution of electricity;
2° Between operators and users of facilities for the transmission or distribution of natural gas;
3° Between operators and users of natural gas storage facilities, or between operators and users of LNG plants;
4° Between operators and users of facilities for the transmission and geological storage of carbon dioxide.

These differences relate to access to such networks, structures and facilities or their use, particularly in the event of denied access or disagreement over the conclusion, interpretation or execution of the contracts referred to in articles L. 111-91 to L. 111-94, L. 321-11 and L. 321-12, or contracts relating to the operations for the transmission and geological storage of carbon dioxide referred to in Article L. 229-49 of the Environmental Code.

Since the purpose of the settlement agreement of 5 January 2010 was to define the parties' obligations regarding the material conditions for performance of a meter-reading service at the power plant operated by the company TOURTELEC, CoRDiS declared that any disputes concerning the performance of this service were not part of its remit, but fell within the jurisdiction of the ordinary courts.

10 May 2012

GDF SUEZ / GRT gaz
Conditions of allocation and billing of natural gas transmission between 1 November 2009 and 31 October 2010 at the Fos PITTM

Disputes over LNG terminals are rarely brought before CoRDiS.
LNG terminals are port-based gas infrastructures that receive liquefied natural gas (LNG) delivered by boat and regasify it before injecting it into the natural gas transmission network. In France, there are currently three terminals in service. Access to these facilities and their tariffs are regulated (ATTM tariffs are set by the CRE). Yet we should bear in mind that for new LNG terminals, two of which are currently planned for France, the provisions of article L. 452-6 of the Energy Code and decree no. 2005-877 of 29 July 2005 allow exemption from regulated third party access. Thus, if exemption is obtained, the operators of these new terminals can set access tariffs themselves.

The company GDF SUEZ had contacted CoRDiS regarding its dispute with the company GRTgaz, the gas transmission system operator. The dispute concerned the conditions of allocation and billing of natural gas transmission between 1 November 2009 and 31 October 2010 at the LNG Terminal Transmission Interface Points (Points d'Interface Transport Terminaux Méthaniers - PITTM) in Fos. Indeed, GDF SUEZ believed that GRTgaz had infringed the principle of correspondence between subscribed regasification capacity provided by the LNG terminal operators at Fos Tonkin and Fos Cavaou, and subscribed capacity at the Fos PITTM.

The order of 6 October 2008, approving tariffs for the use of the transmission network as of 1 January 2009, sets the formula for calculating entry capacity on the transmission network at the Fos PITTM, which shippers who own regasification capacity at the Fos Tonkin and Fos Cavaou terminals are required to obtain from GRTgaz.

The Committee initially deemed that, with respect to the period from 1 November 2009 to 31 March 2010, during which the Fos Cavaou terminal was in its testing phase, the fact that GRTgaz took account of capacity increases when computing capacity allocation at the Fos PITTM before the commercial launch of the Fos Cavaou terminal had the effect of transferring a proportion of the Fos PITTM usage tariff to GDF SUEZ, because it had reserved capacity at the Fos Tonkin terminal, although there was no direct link to the amount of capacity it had actually reserved at the Fos terminals.

CoRDiS then considered that for the period of 1 April 2010 to 31 October 2010, during which the Fos Cavaou terminal was in commercial operation at 20% of its maximum technical capacity, the fact that GRTgaz took account of the total value of capacity at the Fos PITTM had the effect of transferring the cost of transmission capacity to GDF SUEZ, with no direct link to the capacity it had reserved at the Fos Cavaou terminal.

The Committee stated that under the terms of the appendix to the order of 6 October 2008 and the terms and conditions of the transmission contract dated 25 February 2005, signed by GDF SUEZ and GRTgaz, the capacity allocated to a shipper at the Fos PITTM must match the regasification capacity obtained by the latter from the LNG terminal operator as part of a "continuous" service.

The transmission system operator cannot therefore assign to a shipper, for a period of time following an increase in available capacity at an LNG terminal transmission interface point, any capacity not directly related to the regasification capacity reserved by the shipper with an LNG terminal operator during that same period, simply because available capacity has been increased on a given date.

1 October 2012

ENEL Trade / RTE
Revision of the terms and conditions of the participation agreement between the two parties

Since 1 July 2011, in accordance with law no. 2010-1488 of 7 December 2010 and decree no. 2011-466 of 28 April 2011 setting the terms of regulated access to historic nuclear energy, suppliers have been able to apply to exercise their right to regulated access to historic nuclear energy (ARENH) by buying electricity from EDF, at a regulated price and in volumes determined by the CRE. In May 2011, RTE had submitted a planned revision of section 2 of the Rules on the balancing manager's system, the balancing mechanism and planning (Rules) to the CRE for approval, in order to incorporate the provisions on the ARENH mechanism into these rules.

On 14 June 2011, the CRE had notified ENEL France, the supplier for the balancing perimeter of ENEL TRADE, ENEL France's balancing manager (responsible d'équilibre - RE), of the volume of ARENH assigned by EDF, in accordance with the decree of 28 April 2011, as of 1 July 2011. As of 17 June 2011, the injection of an ARENH volume of X MW into ENEL Trade's balancing perimeter was recorded by the Dat@RTE application.

On 21 May 2012, ENEL Trade asked CoRDiS to settle a dispute with RTE. In effect, it deemed that since it was only notified of the revision to the Rules on 28 July 2011, until that date it did not know that *"a new method of attaching injected electricity to its balancing perimeter had been put in place, which caused it to underestimate the quantities of electricity available"*, and that buying quantities of electricity on the spot market between 1 July and 26 July 2011, which turned out to be unnecessary, had caused it considerable damage.

Upon being contacted about a dispute relating to the ARENH mechanism for the first time, CoRDiS first of all observed that as decree no. 2011-466 of 28 April 2011 had been published in the Journal officiel de la République française on 29 April 2011, the rules on the attachment of ARENH to balancing perimeters were applicable to balancing managers, including ENEL Trade, and applied to co-contracting parties in application of article B.6.1.1, section 2 of the aforementioned Rules on Participation Agreements. The Committee added that the new drafting of the Rules merely transposed the provisions of the decree of 28 April 2011, without adding anything to them.

CoRDiS stated that the purpose of notification as set out in the Rules was not to secure the consent of RTE's co-contracting party, but solely to make it possible to either bring the Participation Agreement in line with the new Rules, which ENEL Trade had in fact requested in a letter dated 4 August 2011, or to cancel this agreement, and to set a timeframe for either of these options.

All of ENEL Trade's requests were rejected in the Committee's decision of 1 October 2012. ■

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