COMMISSION
DE RÉGULATION
DE L'ÉNERGIE

Activity report

2013

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PROGRESS TOWARD AN INTEGRATED EUROPEAN ENERGY MARKET, IF IT APPEARS SLOWER THAN EXPECTED AND NOT VERY VISIBLE, IS NEVERTHELESS INDISPUTABLE.

Members of the board from left to right

- ✔ *Hélène **Gassin**,*
- ✔ *Michel **Thiollière**,*
- ✔ *Philippe **de Ladoucette** (chairman),*
- ✔ *Jean-Pierre **Sotura**,*
- ✔ *Olivier **Challan Belval**,*
- ✔ *Catherine **Edwige**.*

EUROPEAN POLICY FEATURES TWO MAJOR PROJECTS, OF WHICH WE CAN ONLY SEE THE LACK OF HARMONISATION.

At the end of his life, Jean Monnet said that European construction, closely associated with energy issues from the outset, was "*unexpected*". He also recalled in his memoirs "*I always thought that Europe would be in crises and that it would be the sum of the solutions that we would bring to these crises*". European policy currently faces a new test. It features two major projects, of which we can only see the lack of harmonisation. The first is to assign a central place to climate change issues, in particular with the subsidised development of electricity production from renewable energy sources. The second is to conclude the internal market based on the principles of competition law, which guarantee free, transparent and non-discriminatory access to electricity and gas networks and the freedom to choose an electricity and gas supplier, while ensuring consumer protection. Moreover, the growth of a strong Europe internally and internationally is crucial for tackling energy challenges and their consequences in terms of competitiveness, security of supply and the impact on the environment.

The task is even more difficult as the energy sector is affected by many factors of uncertainty. The combined effects of the economic crisis, the effects of the Fukushima nuclear disaster and the exploitation of shale gas in the United States have, in one way or another, had consequences on European and French energy markets.

The economic crisis has both reduced electricity demand and driven down the price of CO_2. The reduced pressure on coal, due to the massive use of shale gas for electricity production in the United States has lowered its price on the international market and has made it more competitive in Europe for power plants than gas.

If you add the important development of renewable energies to meet the European objectives defined in the 2009 energy-climate directive to these phenomena and their mass arrival on electricity networks, you arrive at a new situation of overcapacity on average and low market prices (sometimes negative) that was not anticipated by those in the industry. This decreases, or even cancels the profitability of certain means of production such as gas combined-cycle power plants (CCPP), including several particularly in France that have been mothballed.

Finally, the very strong Asian demand for LNG is absorbing a large part of the volumes, which were to supply southern Europe, which is largely dependent on it, and is therefore causing a sharp increase in prices in these regions.

IN THE NEW COMPETITIVE LANDSCAPE, THE INFORMATION AVAILABLE TO THE CONSUMER, WHICH IS STILL VERY INADEQUATE, WILL HAVE TO PROGRESS.

Faced with these difficulties, progress toward an integrated European energy market, if it appears slower than expected and not very visible, is nevertheless indisputable. The meticulous work of regulators obtains significant results and contributes to ensuring the security of supply of the member states of the Union and to ensuring protection for consumers so that they benefit from the efficient functioning of the national markets.

The establishment of the network codes in 2013 marked an important step toward the finalisation of the internal market. This set of common rules focuses on cross-border trade. Their objective is to improve the resources of electrical and gas systems. The challenge is to harmonise the management of electricity and gas networks to a sufficient technical level, taking into account the specific needs of each member state. National regulators play a fundamental role in fulfilling this objective. A coordination mechanism has been established between them since 2009 under the aegis of ACER, the Agency for the Cooperation of European Regulators.

As a result of their work, the gas transmission capacity allocations have been harmonised to facilitate border exchanges between neighbouring networks. Furthermore, in accordance with the European guidelines, the CRE is working to implement a single marketplace in France to prevent gas price differences between the north and the south of the country.

Considerable progress is also being made to improve the electricity market and to make exchanges to the interconnections between the member states more fluid. This is the case for France with its neighbours, England, Germany and Spain. The market coupling with Italy should be effective in the next few months. France recorded an electricity export balance of 47.6 TWh, an increase of 3.6 TWh compared to 2012.

The CRE, which fixed the new tariffs for the use of electricity networks in 2013, is changing the transmission tariff system to incentivise RTE to develop interconnections. In addition, anxious to promote the technological evolution of the networks necessary for their modernisation, and in particular for the integration of the energy produced from intermittent sources, it assigns a larger share for research and development. Moreover, with the aim of ensuring the proper functioning of the electricity market for consumers, the CRE is strengthening the system of incentives to improve the quality of the distribution network operator's service to users and to reduce power cuts.

With the announced arrival of smart gas and electricity meters and the technological evolution of the electricity and gas networks employed nationwide, the energy market will move at a more dynamic pace. Supply will be diversified. In the new competitive landscape, the information available to the consumer, which is still very inadequate, will have to progress to enable the consumer to be able to choose the supply that best suits their needs while limiting their consumption and lowering bills without affecting their comfort.

The market initiated a major change in 2014 with the end of the regulated gas tariffs for some business consumers, set to come into effect in June 2014 and which will continue until 1 January 2016. The date on which the regulated tariffs for electricity for businesses will also expire.

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Activity report 2013

THE ENERGY REGULATORY COMMISSION

Members of CoRDiS

✓ Roland **Peylet,**
✓ Monique **Liebert-Champagne** (chairman),
✓ Christian **Pers,**
✓ Françoise **Laporte.**

1. THE ORGANISATION OF THE CRE

The CRE is an independent administrative authority, created when the energy markets were opened up to competition. The Law of 10 February 2000 relating to the modernisation and development of the public electricity service, which now appears in the [French] Energy Code, assigned it the task of regulating these markets. Its main mission is to contribute "*to the proper functioning of the electricity and natural gas markets for the benefit of end consumers and in line with the energy policy objectives*" (Art. L. 131-1 of the [French] Energy Code). To achieve this task, the CRE comprises two independent bodies: the board of the Commission and the Committee for Settling Disputes and Sanctions (CoRDiS). In making its decisions, the board relies on the expertise of the management of the CRE, placed under the authority of the chairman and the managing director.

THE LAW OF 15 APRIL 2013 AMENDED THE COMPOSITION OF THE CRE BOARD FOR THE FOURTH TIME IN THIRTEEN YEARS.

1.1. THE BOARD OF THE COMMISSION

The Law of 15 April 2013 amended the composition of the CRE board for the fourth time in thirteen years. The [French] Energy Code now requires the Board of the Commission, which respects parity between men and women, to comprise six members. Members other than the chair appointed after the entry into force of the law will include:
– One member appointed by decree, on the proposal of the minister of Overseas Territories, due to his knowledge and experience of non-interconnected areas;
– One member appointed by the Chairman of the National Assembly and one by that of the Senate, because of their legal, economic and technical qualifications respectively in the field of data protection and in that of local public energy services;
– Two members appointed by decree, due to their legal, economic and technical qualifications, one in the fields of the energy consumer protection and combating fuel poverty, and the other in the fields of the managing energy demand and renewable energy.

The commissioners are appointed for a non-renewable term of six years. Exceptionally, the current members of the board have been appointed for periods ranging from three to six years, in order to ensure the renewal of the board every two years by third parties.

The members of the board perform their duties full-time. In order to comply with the independence requirements laid down by European law, they can only be dismissed in the three cases provided for in Article L. 132-5 of the [French] Energy Code, in the case of non-compliance with the incompatibility rules, a serious breach or impediment. In addition, the rules on incompatibility shall prohibit any cumulation of the position of member of the board with a municipal, departmental, regional, national or European elected mandate, and prohibit any taking of a direct or indirect interest in a company in the energy sector. This prohibition of taking an interest applies until the expiry of a period of three years following the end of their mandate.

1.2. THE COMMITTEE FOR SETTLING DISPUTES AND SANCTIONS (CoRDiS)

CoRDiS, created by the Law of 7 December 2006, comprises four members: two councillors of State appointed by the Vice-Chairman of the Council of State and two Councillors to the Court of Cassation appointed by the First President of the Court of Cassation. The Committee has also included four alternate members since 2013. Like the members of the CRE board, the members of CoRDiS and their alternates are appointed for a non-renewable term of six years.

CoRDiS is responsible for settling the technical and financial aspects of disputes between operators and users of public electricity and natural gas networks. This independent committee of the board of Commissioners allows the CRE to accomplish one of its fundamental tasks: ensuring transparent and non-discriminatory access to electricity and natural gas networks, the key to opening up to competition. CoRDiS also has the power to sanction the failings cited in the [French] Energy Code and - since the Law of 15 April 2013 - failings in the regulation of 25 October 2011 on Energy Market Integrity and Transparency (REMIT). This law has also clarified the procedures for separating the prosecution and sanction powers within the Committee.

CoRDiS IS RESPONSIBLE FOR SETTLING THE TECHNICAL AND FINANCIAL ASPECTS OF DISPUTES BETWEEN OPERATORS AND USERS OF PUBLIC ELECTRICITY AND NATURAL GAS NETWORKS.

Members of the steering committee

✓ *Fadhel* ***Lakhoua****, Director of Finance and Wholesale Markets Surveillance,*
✓ *Anne* ***Monteil****, Director of Publics Affairs and Communication Department,*
✓ *Sophie* ***Pataridzé****, Director of Human Ressources,*
✓ *Jean-Yves* ***Ollier****, General Director,*
✓ *Francis* ***Hauguel****, Deputy Director to the General Director, responsible for administrative issues,*
✓ *Cécile* ***George****, Director of Electric Grid Access,*
✓ *Dominique* ***Jamme****, Director of Gas Infrastructures and Networks,*
✓ *Christophe* ***Leininger****, Director of Market Development,*
✓ *Philippe* ***Raillon****, Director of International Relations,*
✓ *Alexandra* ***Bonhomme****, Director of Legal Affairs.*

2. THE TASKS OF THE CRE

The tasks of the CRE are divided into two components. On the one hand, the task of regulating the electricity and natural gas networks consists of ensuring users (businesses, local authorities, consumers and producers) have non-discriminatory access to the transmission and distribution infrastructure which are natural monopolies, while ensuring the security of supply. On the other hand, the task of regulating the markets to develop free and fair competition to the benefit of the end consumer. Article L. 134-9 of the [French] Energy Code - originating from law No. 2010-1488 of 7 December 2010 on the new organisation of the electricity market (NOME law) - requires the CRE to be obliged to consult the Higher Energy Council (CSE) prior to its decisions for subjects that may "*have a significant impact on energy policy objectives*" whose list will be determined by decree in the Council of State. More than three years after the adoption of the law, this decree has not yet been published.

2.1. THE REGULATION OF ELECTRICITY AND NATURAL GAS NETWORKS

Since the Law of 10 February 2000, the tasks entrusted to the CRE have continued to increase. The NOME law and the transposition of directives 2009/72/EC and 2009/73/EC of 13 July 2009 on common rules for the internal electricity and natural gas market are important steps in reforming the energy sector.

Ensuring the right of access to public electricity networks and natural gas networks and installations

The opening up to competition can only be exercised on the electricity and natural gas markets if operators and consumers can access these networks, structures and installations under transparent and non-discriminatory conditions. The CRE contributes to this requirement and to ensuring that the networks are safe, reliable and efficient, to the benefit of consumers. It promotes the adequacy of networks and energy efficiency, as well as the integration of energy production from renewable sources. The tasks of the CRE to ensure this right of access are essentially the same for the natural gas market and the electricity market.

The principle of non-discrimination is the guarantee of access to the market for new entrants and the development of fair competition for the benefit of the consumer. The CRE receives contracts concluded between managers or operators of networks and users, such as protocols for accessing the electricity networks and the transmission and distribution of natural gas structures, as well as liquefied natural gas installations. It receives notification of reasoned refusal to conclude contracts or protocols for accessing such networks, structures and installations. As regards access to electricity networks, the CRE issues a prior opinion on the decisions of the prefect refusing to authorise the construction of a direct line.

As regards access to natural gas structures, it issues an opinion on the exceptions established by decree to the tariffs for the use of the transmission and distribution networks of natural gas and liquefied natural gas installations, as well as on the exceptions made to the commercial conditions for using the networks or installations.
The CRE has coercive power in respect of operators in the event of a serious and immediate breach of the rules governing access to the networks, structures and installations or their use: it may order, by way of settling dispute, interim measures in order to ensure the continuity of the operation of networks.

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DAYS OF COMMISSION
IN 2013

Ensuring the proper functioning and development of electricity and liquefied natural gas networks and infrastructure

In order to ensure the optimal operation of the networks, the CRE now establishes the tariffs for using public electricity and natural gas networks and the tariffs for related services carried out under the monopoly of the operators of these networks. Before the entry into force of the Third Energy Package, it could only propose such tariffs to the competent ministers who could object to such a proposal.

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RESOLUTIONS MADE
IN 2013

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

The CRE approves the annual investment programmes for natural gas transmission network operators (GRTgaz and TIGF) and the public electricity transmission network operator (RTE) and ensures that the investment necessary for the proper development of networks is made.

The transposition of the Third Energy Package in the [French] Energy Code amended the CRE's tasks regarding the investment programmes of transmission network operators. In fact, the CRE examines the ten-year investment plan for transmission network operators each year checking that the plan covers all the investment needs and is in line with the European plan prepared by ENTSOs (European Network of Transmission System Operators),

THE CRE ENSURES THAT THE INVESTMENT NECESSARY FOR THE PROPER DEVELOPMENT OF NETWORKS IS MADE.

agencies for the cooperation of European network operators. The CRE may, if necessary, consult the Agency for the Cooperation of Energy Regulators (ACER) and require the transmission network operator to amend its ten-year investment plan. If the transmission network operator has not made the investment, which, according to the implementation of the ten-year plan, should have been made in three years, the CRE has a coercive power. It may, if it considers that the investment is still relevant given the ten-year plan in progress, either give the transmission network operator notice to comply with this obligation and therefore make the planned investment, or organise an open call for tenders to third party investors to make this investment.

In the event of a serious and immediate breach to the security and safety of public electricity transmission and distribution networks or to the quality of their operation, the CRE may propose interim measures necessary to ensure the continuity of their operation to the Energy minister.

Ensuring the independence of network operators

The management of electricity or natural gas transmission networks is ensured by separate legal persons from those who engage in the generation or supply of electricity or gas (article L. 111-7 of the [French] Energy Code).

To ensure the independence of these networks, the CRE approves, after the opinion of the Competition Authority, the accounting rules on the separation of activities between electricity production, transmission and distribution, and other activities of integrated electricity operators and between transmission, distribution, storage of natural gas and the use of liquefied natural gas installations and other activities of integrated natural gas operators. It exercises a function of oversight and monitoring implemented by being able to exercise its investigation and sanctioning powers.

In addition, each year the CRE publishes a report on the observance of compliance programs established by each transmission and distribution network operator, as well as the assessment of the independence of network operators.

The transposition of the directives of the Third Energy Package in the [French] Energy Code has provided the CRE with a new power: the certification of transmission network operators. The purpose of the certification procedure is to verify that they comply with all the obligations of the Independent Transmission Operator model (called the ITO model), i.e. the independence and autonomy obligations in relation to their parent company. The CRE opened the certification process and established the composition of the certification file through its resolution of 12 May 2011, then it certified the three transmission network operators through its resolution of 26 January 2012. The certification of transmission network operators is valid without any time limit. However, the CRE's tasks do not end there: the transmission network operators are obliged to notify it of any element that might justify a new examination of their certification. In addition, the CRE may, at its own initiative or at the reasoned request of the European Commission, proceed to a new review when it considers that events affecting the organisation of the transmission network operator or that of its shareholders are likely to affect its independence obligations.

2.2. THE REGULATION OF ELECTRICITY AND NATURAL GAS MARKETS

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

Since 2006, the CRE has been tasked with monitoring transactions carried out on the wholesale electricity and gas markets, particularly by ensuring the consistency of the supplies made by market participants with their economic and technical restrictions. This monitoring activity is performed on data collected regularly. Its purpose is to ensure that the prices are consistent with physical and economic fundamentals, determinants of supply and demand, for example meteorological factors, consumption level, the availability of generation facilities and interconnections, the price of fossil fuels and CO_2, etc.

The banking and financial regulation law of 22 October 2010 gave the CRE the power to oversee the CO_2 market. In cooperation with the Financial Markets Authority (AMF), the CRE monitors transactions on the CO_2 market by European electricity and natural gas suppliers, traders and producers on European emission quotas EUA (European Union Allowance), as well as on CER (Certified Emission Reduction) and ERU (Emission Reduction Units) units provided for by the Kyoto protocol. It analyses the consistency of these transactions with the economic, technical and regulatory constraints of the activities of these electricity and natural gas suppliers, traders and producers.

CRE's monitoring of wholesale markets task is also part of the framework of the Regulation on Energy Market Integrity and Transparency, called REMIT, which prohibits market abuses on wholesale energy markets (electricity and gas). The monitoring of these markets is carried out in cooperation with ACER. The Committee for Settling Disputes and Sanctions (CoRDiS) of the CRE has the power to sanction breaches and violations of this regulation. The CRE prepares an annual report on the monitoring of wholesale markets as part of this task, the sixth edition of which was published in December 2013.

Ensuring the proper functioning of retail markets

In the first place, article L. 131-2 Of the [French] Energy Code, stemming from the provisions of the NOME law, gave the CRE the power to monitor, on the one hand, transactions carried out between suppliers, traders and producers and those carried out on organised markets, and, on the other hand, the consistency of the offers made by the producers, traders and suppliers, particularly toward end consumers, with their economic and technical limits. The CRE may also formulate opinions and propose any measure favouring the proper functioning and transparency of the retail market. The CRE prepares an annual report on the monitoring of wholesale markets as part of this task, the sixth edition of which was published in January 2014.

The CRE's task to ensure the proper functioning of retail markets also takes place via its intervention in the fixing of regulated tariffs for the sale of electricity and natural gas. Until 31 December 2015, they are decreed by the Energy and Economy ministers, following an opinion of the CRE. From 1 January 2016, the CRE will forward the proposals for regulated tariffs for the sale of electricity to the Economy and Energy ministers and its decision will be considered accepted if the ministers do not object within a period of three months following receipt of these proposals.

The fixing of regulated tariffs for the sale of natural gas results from a complex procedure, which was amended by the decree of 16 May 2013. On the one hand, a decision taken by the ministers responsible for the economy and energy after notice from the CRE fixes the tariff formula for each supplier reflecting its total natural gas supply costs and the methodology for assessing its non-supply costs. On the other hand, a decree from the Economy and Energy ministers, taken after notice from the CRE - and since 2013 after the latter has performed a detailed analysis - fixes the regulated tariffs for the sale of natural gas. These rates are reviewed at least once a year and revised as appropriate, depending on the development of the tariff formula. Finally, the procedure for change at the request of the supplier became the common procedure for rate changes in 2013, with a monthly frequency for the GDF SUEZ tariffs. The supplier submits its proposal for change to the CRE, accompanied by the justifying elements. The CRE must ensure that the requested change results directly from the application of the supplier's tariff formula.

The CRE also issues an opinion on the social tariff intended to guarantee the right to electricity for vulnerable people, as well as an opinion on the social tariff for gas applicable to the supply of natural gas.

THE BOARD LISTENED TO 70 STAKEHOLDERS IN 2013

The CRE issues an opinion on the decrees fixing the purchase tariffs for energy produced by small-scale installations, recycling household waste or using renewable energy.

Contributing to the implementation of support mechanisms for electricity production and the supply of electricity and gas

The CRE contributes to the implementation of support mechanisms for electricity production through several channels. On the one hand, it issues an opinion on the decrees fixing the purchase tariffs for energy produced by small-scale installations, recycling household waste or using renewable energies. On the other hand, if the production capacities are insufficient, by the simple set of operator initiatives, with the objectives of the multi-annual programming of the electricity production, the Energy minister can resort to a call for tenders, that the CRE is responsible for implementing. The CRE also offers the drafting of the specification, which is ordered by the Energy minister. It proceeds with the tender analysis and tender instructions. It issues an opinion on the candidates, from which the minister appoints the selected candidates. This activity was still upheld in 2013 › see box below.

In addition, the CRE assesses the amount of charges attributable to the tasks of public service which are the subject of a full compensation under the conditions laid down in article L. 121-10 of the [French] Energy Code and each year proposes the amount of public service charges (CSPE) and the amount of the contribution applicable to each kilowatt to the Energy minister. It also proposes the amount of repayments made to operators incurring public service charges to the Economy and Energy ministers.

Lastly, the CRE proposes the conditions under which the sale of regulated access to incumbent nuclear electricity (ARENH) is performed to the Energy minister. In application of the NOME law, this sale is open to all operators supplying end consumers residing in continental metropolitan France or network operators for their losses. The CRE issues an opinion on the overall volume of maximum incumbent nuclear electricity that can be assigned, particularly according to the development of competition on the electricity production markets and the provision of the latter to end consumers. During a transitional period that was completed on 7 December 2013, the price of ARENH was decreed by the Energy and Economy ministers after a reasoned opinion of the CRE. The CRE is now competent to propose the price of ARENH to the Economy and Energy ministers, according to a methodology, which must be fixed by a decree of the Council of State in application of article L. 336-10 of the [French] Energy Code.

Concerning the natural gas sector, each year the CRE proposes to the Energy minister the amount of the contribution, applicable per kilowatt-hour, under the social tariff for gas.

IMPLEMENTATION OF SUPPORT MECHANISMS FOR RENEWABLE ENERGIES: THE ACTIVITY REMAINED UPHELD IN 2013

Calls for tenders

Call for Tenders 2013/S 049-07947 of 9 March 2013 ***concerning the implementation and operation of electricity production plants from solar energy*** *with power exceeding 250 kW:*

⇢ 396 FILES RECEIVED

Call for Tenders 2013/S 058-095352 of 22 March 2013 ***concerning the implementation and operation of photovoltaic installations*** *on buildings with a peak power between 100 and 250 kW:*

⇢ 594 FILES SUBMITTED

under the first period which closed on 31 October 2013 (10% of open files had been submitted twice).

Call for Tenders 2013/S 054-088441 of 16 March 2013 ***concerning wind turbine installations for electricity production at sea*** *in metropolitan France:*

⇢ 4 FILES RECEIVED

Opinion of the CRE on the purchase prices

- *Resolution of 12 September 2013 incorporating its opinion on the draft decree amending the purchase terms for electricity produced by cogeneration plants.·*
- *Resolution of 23 January 2013 incorporating its opinion on the draft decree laying down the purchase terms for electricity produced by plants using the mechanical energy of the wind in areas not interconnected to the continental metropolitan network and with a production forecasting and smoothing device.*
- *Resolution of 20 June 2013 incorporating its opinion on the draft decree amending the tariff order of 19 May 2011 fixing the purchase terms for electricity produced by biogas recovery plants.*
- *Resolution of 3 October 2013 incorporating its opinion on the draft decree laying down the purchase terms for electricity produced by plants using the energy released by the combustion or explosion of mine gas.*

THE WEBSITE ENERGIE-INFO.FR ANSWERS QUESTIONS POSED BY DOMESTIC CONSUMERS

Informing all consumers

To ensure this task, the CRE has created and manages with the French Energy Ombudsman the website Energie-Info, an information sharing service, which answers questions that are being posed by domestic consumers. There are also practical sheets to understand the opening of the energy markets: how to change energy supplier, whom to contact when moving or relocating, the procedure to follow in the event of a complaint or even how to benefit from social tariffs.

The website Energie-Info also provides access to an electricity and gas supply comparator. Educational and easy-to-use, it allows consumers to compare the offers of different suppliers with their current supply, consult, and get an estimate of the annual expenditure, the price excluding tax and with all taxes included for the subscription and the kilowatt-hour, as well as a breakdown of taxes, and to display green offers if this is a selection criterion.

The CRE is now competent to propose the ARENH price to the Economy and Energy ministers, according to a methodology, which must be fixed by a decree of the Council of State.
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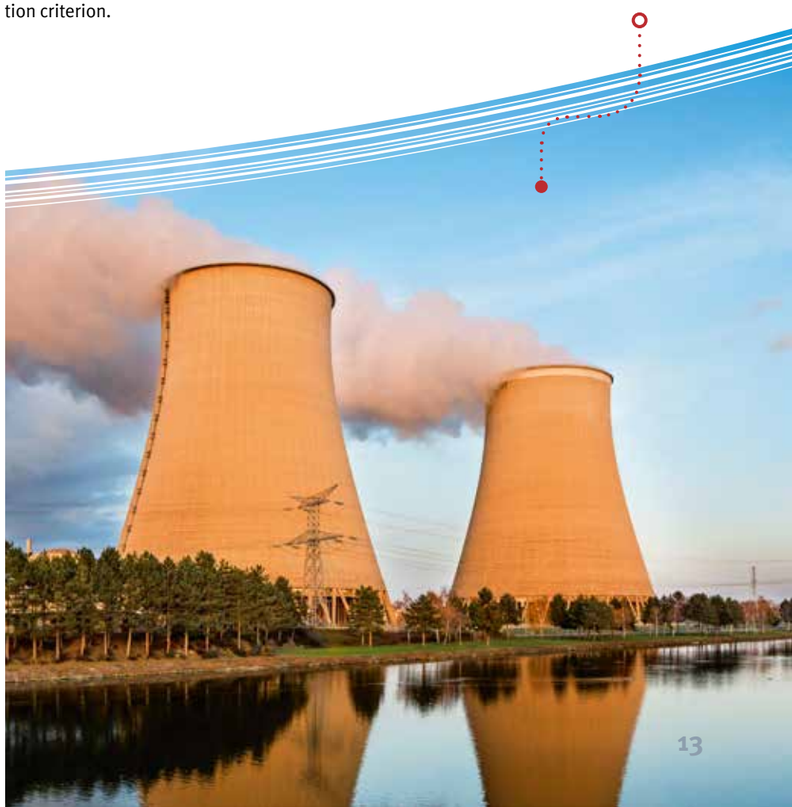

ANALYSIS OF THE COSTS OF INCUMBENT SUPPLIERS
FOR ELECTRICITY AND GAS

Aiming for greater transparency in the retail market, and in order to clarify the Government's choice upstream on the trajectories of tariff changes to consider, in 2013 the CRE carried out analyses of the costs of EDF and GDF SUEZ for the supply of customers at regulated tariffs. They provide, both to alternative suppliers and to consumers, transparency, and visibility essential for the operation of retail markets. The first analysis on the supply costs of GDF SUEZ was made public on 4 April 2013[1].
In electricity, the CRE carried out an analysis of the production and marketing costs of EDF made public on 4 June 2013[2]. These analyses carried out by the CRE will be updated and supplemented annually. In particular, they concern consistency between incumbent operators' costs and regulated tariff levels to consumers.
For natural gas, the decree of 16 May 2013 amended the decree of 18 December 2009, which now states that the CRE must "complete a thorough analysis of the overall costs of each supplier each year". In its Resolution of 11 April 2013 on this draft decree, the CRE issued a clearly unfavourable opinion to an extension of its powers for the first time.
It actually estimated that applied to all the incumbent suppliers, these requirements were disproportionate in relation to the objectives of verifying the adequacy of the tariffs and transparency, the 22 local distribution companies representing less than 5% of the sites supplied at the regulated tariffs for the sale of gas in France. In addition to the methodological problems posed by the absence of unbundling of accounts for some of these companies, the CRE has stressed that, given the limited resources at its disposal, it was not in a position to carry out audits and annual checks on all 24 suppliers. It said in particular that its workforce and its means have not been adjusted to the increase of its missions and activities since 2009, with the transposition of the European texts of the Third Energy Package, the law on the new organisation of the electricity market (NOME law) and the development of calls for tenders in the area of renewable energy.
In this context, it has issued an unfavourable opinion on the extension of its tasks beyond the measures necessary to allow it to exercise the competences entrusted to it by the European texts and by the law.

1 – http://www.cre.fr/documents/publications/rapports-thematiques/rapport-d-audit-sur-les-couts-d-appro.-en-gaz-gdf-suez
2 – http://www.cre.fr/documents/publications/rapports-thematiques/analyse-des-couts-de-production-et-de-commercialisation-d-edf

3. THE CRE AND OTHER INSTITUTIONAL ACTORS

3.1. THE CRE AND PARLIAMENT

Independence of the Government is one of the reasons for being an independent administrative authority, such as the CRE.

Exempt hierarchical authority or protection of executive power, its independence originates from the law. Article L. 134-14 of the [French] Energy Code provides that the chairman of the CRE "*gives an account of the Commission's activities before the standing committees of Parliament competent in matters of energy, at their request*".

The CRE attaches particular importance to this dialogue. Each CRE publication is the subject of a transmission to Parliament and sometimes even a presentation before the competent committee.

The chairman of the CRE appeared before the National Assembly and the Senate seven times in 2013. These hearings were held to introduce the work of the CRE, for example, upon the submission of the report on EDF's production and marketing costs in the framework of regulated tariffs for the sale of electricity, but also:
– To communicate the elements in the framework of an information task, as was the case for biomass;
– To debate on the appropriations, which should be allocated to the CRE: the chairman of the CRE was heard, in the framework of the finance bill for 2014, by the Finance Commission and the Commission on Economic Affairs of the National Assembly;
– To gather the views of the CRE on certain subjects, for example within the framework of the discussion led by the Commission for Economic Affairs of the National Assembly on the deployment of the Linky smart meter.

3.2. THE CRE AND LOCAL AUTHORITIES

With regard to energy, the towns and the public establishments for intercommunal cooperation provide five main functions: they develop the production from renewable energies, distribute - this is their historic task - and consume energy, they arrange their regions and raise awareness among local actors and the population on energy management. In the context of the transformation of the energy system including the development of decentralised electricity production, their role in the planning of production means has increased. The local communities are now undertaking many innovative projects to help manage energy more efficiently.

Aware of this central role of the different levels of communities, the CRE wishes to strengthen its exchanges with local elected representatives

In 2013, the CRE met local elected representatives through the various associations they belong to (Association of the regions of France, Assembly of departments of France, Association of mayors of major cities in France, Assembly of communities of France). It also travelled to the regions to organise round table meetings on the theme of smart grids, in Brittany, PACA, Rhône-Alpes, and at the beginning of 2014 Nord-Pas-de-Calais › see p. 90-91. In addition, representatives of the CRE regularly participate in public debates on local infrastructure projects. For example, in 2013 the CRE participated in two local public debates organised by the National Commission for Public Debate concerning major gas pipelines projects in Val de Saône and Arc Lyonnais.

The CRE also answers the many questions posed each year by the elected representatives

The CRE invites local authorities to participate in its work by offering them a forum in the events it organises (forums or symposia) or even by inviting them to respond in writing to the public consultations that it organises on topics that interest them.

3.3. THE CRE AND OTHER INDEPENDENT ADMINISTRATIVE AUTHORITIES

The CRE, as a regulatory authority, is required to work with other independent administrative authorities, in particular the Competition Authority, the Financial Markets Authority (AMF) and the National Commission for Computing and Liberties (CNIL).

Article L. 134-16 of the [French] Energy Code provides that the chairman of the CRE informs the Competition Authority of "*abuses of dominant positions and practices impeding the free exercise of competition it is aware of in the areas of electricity or natural gas*". It can also refer to it for an opinion. This opinion may be required, such as for example, in application of paragraph 6 of article 25 of law no. 2000-108 of 10 February 2000, in the framework of the approval of the principles of unbundling of local electricity distributors. In 2013, the CRE asked the Competition Authority for an opinion on the principles of unbundling proposed by EDF on the one hand, and Sorégies on the other hand.

In addition, the Competition Authority must communicate any referral for opinion on sectors falling within its field of competence to the CRE, so that the latter can submit any comments, within a period of two months. The Authority then consulted the CRE in 2008 and in 2011 in the framework of a referral on the practices implemented by EDF in the services sector for the production of photovoltaic electricity. The Authority issued its decision on 17 December 2013, in which it found that it was established that EDF had violated the applicable provisions in competition law "*on the one hand, making the surplus available to its subsidiaries active in the photovoltaic industry with favourable financial terms, material and immaterial means which enabled them to benefit from its brand image and its reputation, and, on the other hand, by using the data which it held as the historic electricity supplier to facilitate the marketing of the subsidiary's offers*".

THE CHAIRMAN OF THE CRE APPEARED BEFORE THE NATIONAL ASSEMBLY AND THE SENATE
7 TIMES
IN 2013

The CRE actively participates in the construction of a single energy market in European regulation forums.
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In addition, the Competition Authority heard the CRE on 5 December 2013 in the context of the draft decree on demand response in the electricity sector; the latter had made two decree proposals to the government on 24 July and 17 October 2013 in application of the provisions of articles L. 271-1 and L. 123-1 of the [French] Energy Code. The Competition Authority, referred to by the Economy and Finance ministers, issued an opinion on this matter on 20 December 2013, published on 13 January 2014.

Cooperation with the AMF has been strengthened by the adoption, because of European law, of the banking and financial regulation law of 22 October 2010, which now provides for the possibility of an exchange of information and expertise when useful for both authorities to complete respective missions. In this framework, the CRE and the AMF signed an agreement protocol in 2010 providing for mutual assistance in terms of methodological support or contribution of expertise or information useful to perform their tasks on the gas, electricity and CO_2 markets.

The CRE also cooperates with the CNIL on files, which present data protection issues, such as smart metering projects.

23
PUBLIC CONSULTATIONS LAUNCHED IN 2013
IS A STABLE NUMBER COMPARED TO 2012

3.4. THE CRE AND EUROPEAN REGULATION BODIES

In addition to the bilateral daily contacts that it maintains with its European counterparts, the CRE actively participates in the construction of a single energy market within European regulation bodies. It is as well represented in all the working groups of the Council of European Energy Regulators (CEER) and the Agency for the Cooperation of Energy Regulators (ACER) within which it works on drafting the operational rules of the internal market. The CEER is a non-profit association under Belgian law, which spontaneously brings together regulators from the 28 member states of the European Union (EU), Iceland and Norway, as well as Swiss regulators and from the Former Yugoslav Republic of Macedonia, as observers. The CEER is the voice of the national regulators at community and international level. It promotes assistance and the sharing of experience and good practices between its members and enables common positions to be developed. It works closely with ACER on community issues and addresses several issues complementary to ACER's work, such as the international issues, smart grids, sustainability and problems relating to customers. The CRE has been a member of the CEER since it was founded in March 2000 and is vice-chairman of the association.

Furthermore, the CRE is a member of the Board of Regulators of ACER, a European agency with a legal personality, established by the Third Energy Package and operational since March 2011. ACER's goal is to assist the national regulatory authorities to exercise and coordinate their regulatory tasks at community level and, if necessary, to supplement their actions. It ensures that the integration of markets and the harmonisation of regulatory frameworks are carried out in compliance with the objectives of the EU's energy policy. The Agency also adopts the framework guidelines for the integration of markets, the objective of which is to establish principles intended to be developed in the network codes drafted by the European Network of Transmission System Operators (ENTSO). It is also responsible for monitoring the market, in coordination with national regulators and contributes to the coordinated development of the Union's energy infrastructure.

THE CRE IS REPRESENTED IN ALL EUROPEAN WORKING GROUPS

ACER and/or CEER Working Groups	Level of participation of the CRE	Other responsibilities assumed by the CRE
Electricity (ACER/CEER)	Participation	– Co-chair of the Security of supply sub-group (CEER)
Gas (ACER/CEER)	Participation	– Chair of the Infrastructure sub-group (ACER/CEER) – Co-chair of the Allocation of capacity (ACER) and LNG (CEER) sub-groups
Integrity and transparency of markets (ACER/CEER)	Vice-chair	– Chair of the Wholesale energy market sub-group (CEER)
Retail and consumer markets (CEER)	Chair	– Co-chair of the Consumer information sub-group
Procedures and monitoring of the implementation of European legislation (ACER/CEER)	Participation	-
International relations (CEER)	Co-chair	-

4. THE CRE, CONSULTATION AND TRANSPARENCY

The CRE is committed to the consultation process in the drafting of its resolutions and the transparency of its work. These are indeed essential factors for ensuring the quality and understanding of the work of the regulator and the proper functioning of the energy market, to the benefit of the end consumer. The CRE exchanges with stakeholders within its work processes, mainly in three forms. It organises the dialogue between actors from the energy market, within consultation groups or, in a self-regulation process, they draft the operating rules for the market themselves. The CRE also performs several consultations and hearings, and sets up working groups and round tables to prepare its decisions and opinions, making sure they are increasingly transparent. Finally, it participates in European energy market construction work, the basic principle of which is consultation.

RULES OF PROCEDURE WITHIN THE CRE, A TOOL AT THE SERVICE OF THE TRANSPARENCY OF THE REGULATOR'S ACTIVITIES

The CRE not only ensures the transparency of the gas and electricity markets, but also of its own work, in particular to ensure its quality and understanding by the stakeholders. This transparency has been strengthened with the adoption of the rules of procedure of the CRE by a resolution dated 10 October 2013. The new version of the rules of procedure provides that, in fact, in the case where publication is not expressly provided for by texts, the resolutions adopted by the board of the commission are made public (in practice on its website), unless a contrary decision has been reached by the board.
Furthermore, in application of the second paragraph of article 8 of these same rules of procedure, a summary of studies carried out in support of the resolutions adopted by the board has been made public on the CRE's website.
For this reason the CRE has, for example, published the summary of the report prepared by the consultant firm London Economics in the framework of the request for exemption filed by ElecLink under article 17 of European Regulation No. 714/2009 concerning an interconnection between France and Great Britain [1]. It should be emphasised that, as the rules of procedure specify, these publications are carried out subject to secrets protected by law.

1 – http://www.cre.fr/documents/consultations-publiques/demande-de-derogation-d-eleclink-au-titre-de-l-article-17-du-reglement-ce-714-2009-concernant-une-interconnexion-entre-la-france-et-la-grande-bretagne

It is through the cooperation of regulators, meeting within the CEER and the ACER, and through consultation between the actors of the sector that the common operating rules of the vast European energy market are laid down. Consultation also allows the widest possible adherence to these rules, and, in so doing, facilitates implementation.

Public consultations to obtain the opinions of those involved

Given their structural nature, some of the CRE's resolutions systematically give rise to one, or even several public consultations. In 2013, for example, this concerned the access conditions to the gas transmission networks of gas-intensive consumers, for the drafting of the draft specifications of the call for tenders for offshore wind turbines or even for the development of smart low voltage electricity grids.

In some cases, the [French] Energy Code fixes the principle of consultation of stakeholders by the CRE before some of the resolutions of the regulator. However, the CRE has increasingly assumed the part of regularly consulting market players, including for decisions where such a consultative approach is not required by the statutory or regulatory texts. This market consultation takes the form of either an ad hoc public consultation, or hearings before the board of the CRE.

This year, the CRE launched 23 public consultations (the same as in 2012). The board listened to 70 stakeholders in 2013. This consultation may also take the form of workshops or round tables bringing together stakeholders from the sector.

A principle of transparency formalised in the rules of procedure

The CRE is responsible for ensuring the transparency of the energy markets, in particular through its monitoring tasks, which give rise to the publication of annual reports. It is contributes elsewhere by means of the Energie-Info service.

The CRE also ensures the transparency of its own work to ensure its quality and understanding by stakeholders. Its resolutions, the consultations to prepare them and its reports are available online at the website www.cre.fr. This website is part of the educational approach deployed by CRE across all of its communication tools.

Finally, the change to the CRE's rules of procedure in 2013 formalised the principle of transparency in the procedures implemented by the regulator › see box above.

65
CONSULTATION MEETINGS OF WORKING GROUPS OF THE CRE IN 2013 (31 FOR ELECTRICITY, 34 FOR GAS)

5. HUMAN RESOURCES AND BUDGETARY MEANS

Article 35 of Directive 2009/72 of 13 July 2009 and article 41 of Directive 2009/73 of the same date state that "*the national regulatory authority has a separate budget and autonomy in the execution of the budget, and has sufficient human and financial resources to fulfil its obligations*".

The tasks and activity of the CRE have increased substantially since 2010, with the transposition of the directives of the Third Energy Package (decision-making power for fixing the usage tariffs of networks, certification, examination of ten-year investment schemes of operators of transmission networks), the entry into force of the NOME law (ARENH, monitoring of retail markets), the massive recourse to calls for tenders in the area of renewable energy, the entry into force of the REMIT regulation and the European work for the drafting of the rules relating to the integration of markets.

However, the staffing levels and operating budget of the CRE fell during the same period. In addition, they were systematically cut during the course of the year by budget freezing measures.

The 125 FTEW (full-time equivalent work) members of staff of the CRE are responsible for preparing the CRE's decisions on the fixing or checking of energy price components whose cumulative amounts annually represent almost €50 bn: €19.5 bn for the regulated tariffs for the transmission and distribution of natural gas and electricity infrastructure and the tariffs for accessing LNG terminals; €23.6 bn for the supply part of regulated sales tariffs; and €5.2 bn for the contribution to the public electricity service.

The study of the resources of the European energy regulating authorities revealed that eight regulators which already have more staff than the CRE (in Germany, Spain, Great Britain, Hungary, Italy, Poland, the Czech Republic and Romania) saw staff increase in 2013 to between 190 and 729 FTE (full time equivalent), compared to 186 to 593 FTE in 2012.

It is through the cooperation of regulators, meeting within the CEER and ACER, and through consultation between the stakeholders of the sector that the common operating rules of the vast European energy market are laid down.
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NEW TASKS WITH REDUCED MEANS

Two new texts published in 2013 increased the CRE's tasks further. The law of 15 April 2013 [1] called "Brottes law" substantially extended the scope of the CRE's tasks. So, regarding electricity demand response, the CRE now has the task of (i) proposing a decree laying down the methodology used to establish the rules allowing recovery, (ii) giving its opinion on the order fixing the amount of the bonus paid to demand response operators, and (iii) proposing to the Energy minister the amount of forecast expenses resulting from the payment of the bonus each year. Moreover, the CRE now has jurisdiction to propose the method for calculating the amount of capacity guarantees included in long-term electricity supply contracts to the Minister of Energy. Finally, CoRDiS now has jurisdiction to penalise operators for non-fulfilments of their mission to provide electricity at the priority need tariff, as well as non-fulfilments of (i) the rules defined by the European regulation of 25 October 2011 concerning the integrity and transparency of the wholesale market or (ii) such as to seriously interfere with the operation of the energy market. In addition, the creation of a new post of member of the board by this law has been applied to the CRE's workforce. The decree of 16 May 2013 makes the CRE responsible for verifying the monthly adjustments of the scale of regulated tariffs for the sale of gas, and a detailed analysis each year of the costs of the 24 suppliers at the regulated tariffs.

1 –Law No. 2013-615 of 15 April 2013 aimed at preparing the transition to a simple energy system containing various provisions on water and wind turbine pricing.

CoRDiS now has the power to penalise breaches of the rules defined by the European regulation of 25 October 2011 concerning the integrity and transparency of the wholesale market (REMIT).

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CHANGES TO THE EMPLOYMENT CEILING OF THE CRE

Full time equivalent	2009	2010	2011	2012	2013	2014	2015
Commissioners	3	3	5	5	5	6	6
Agents	128	128	126	126	125	124	123
Total	131	131	131	131	130	130	129

130

PEOPLE - THE CRE WORKFORCE

IN 2013 IN NUMBER OF FTEW (FULL TIME EQUIVALENT WORK) POSTS, OF WHICH 5 ARE COMMISSIONERS

The lack of staff at the CRE particularly affects:
- Its ability to manage calls for tenders in the area of renewable energy by the required deadlines. In this regard, the CRE recalls that Directive 2009/72 of 13 July 2009 does not require this task to be entrusted to the energy regulatory authority. It could be entrusted to another independent body;
- Its ability to take part in European groups where the rules on integrating networks are drawn up between regulators. The CRE has had to sharply reduce its participation in these groups;
- Its ability to support any new task not strictly required by European or legislative texts. The CRE has therefore had to, for this reason, issue an unfavourable opinion on 30 April 2013 on a draft decree calling for it to conduct a systematic analysis of the costs of all gas suppliers at the regulated tariff prior to its opinion on tariffs › see box p.14.

The continued reduction of the CRE's operating budget after the implementation of a saving plan basically affects its budget for studies, audits and external advice. However, these studies are essential for setting tariffs. The CRE has proposed, in this regard, that the [French] Energy Code should be changed so that certain study costs can be borne by the operators concerned through a specific contribution. The budget directorate rejected this proposal.

On 31 December 2013, the CRE had 128 agents (excluding commissioners), 60 of whom were women and 68 were men: 47.1% of task managers, 29.4% of heads of department and 50% of directors or advisers are women.

Faced with changing tasks, the regulator seeks to acquire better technical-economic competence in the energy sector and forecasting abilities. In 2013, the CRE received more than 1,876 CVs for 29 posts open to recruitment, mostly concerning highly sought-after candidates with a very high level of qualification.

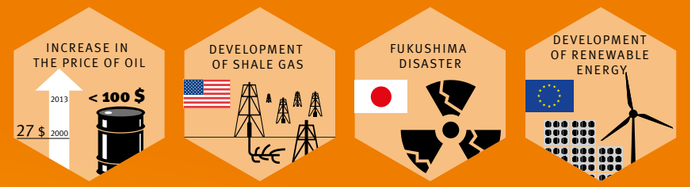
The CRE's contributors, the majority of whom are contractual agents under public law (89% of the workforce), are mainly recruited from companies. Their average age is 34.8 years old. In 2013, 40% of the agents have attended at least one vocational training course with an allocated budget of €136,000. During this same period, 6% of the workforce moved internally.

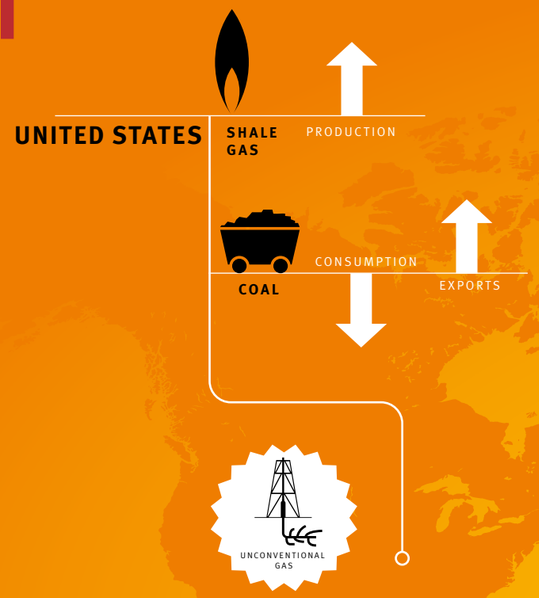
THE TASKS AND ACTIVITY OF THE CRE HAVE INCREASED SUBSTANTIALLY SINCE 2010. *HOWEVER, THE STAFFING LEVELS AND OPERATING BUDGET OF THE REGULATOR FELL DURING THE SAME PERIOD.*

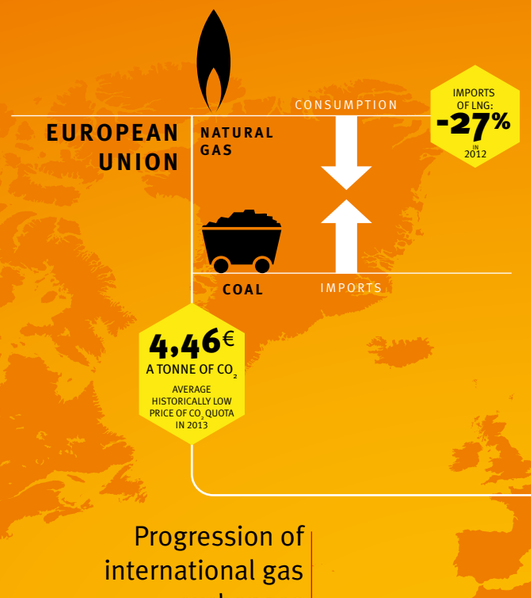
THE ENERGY MARKET/S

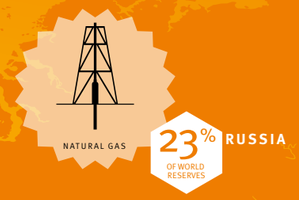
In 2013, energy production and consumption balances were amended in depth. Natural gas has been one of the main factors of change.

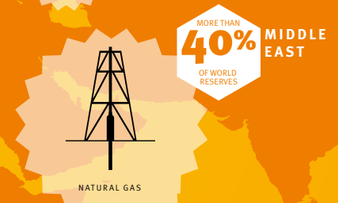
4 MAJOR SHOCKS

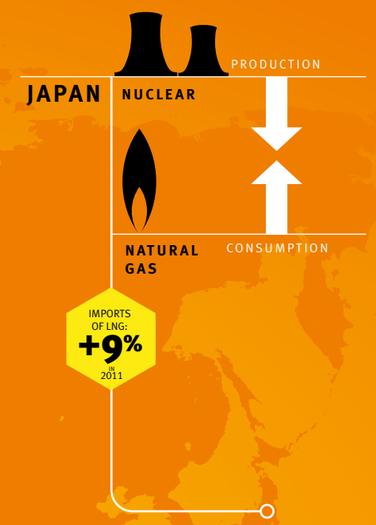












Progression of international gas exchanges between 2002 and 2012

+80%

30%

Share of LNG in the international gas trade in 2012

70%

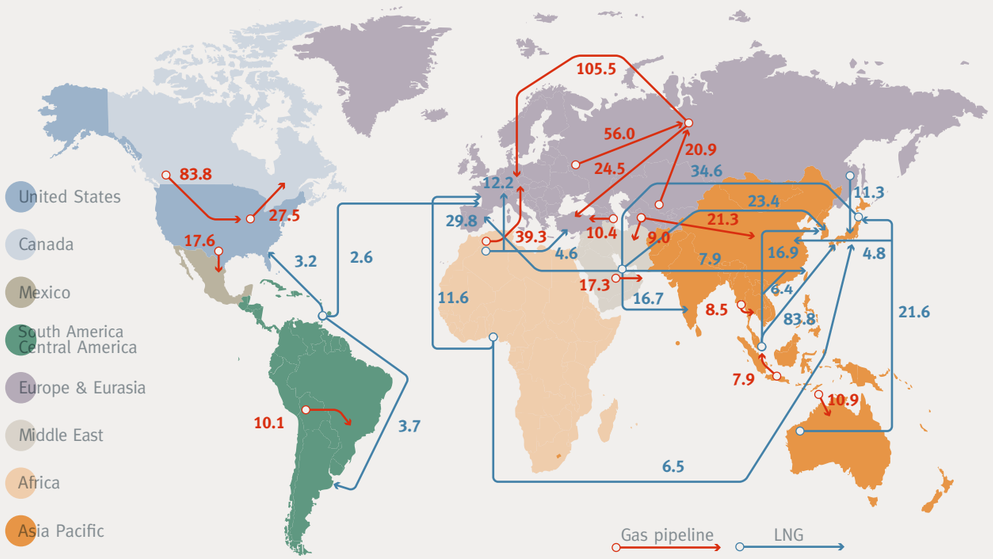
Share of world imports of LNG received by Asia

EUROPEAN UNION & UNITED STATES

ASIA

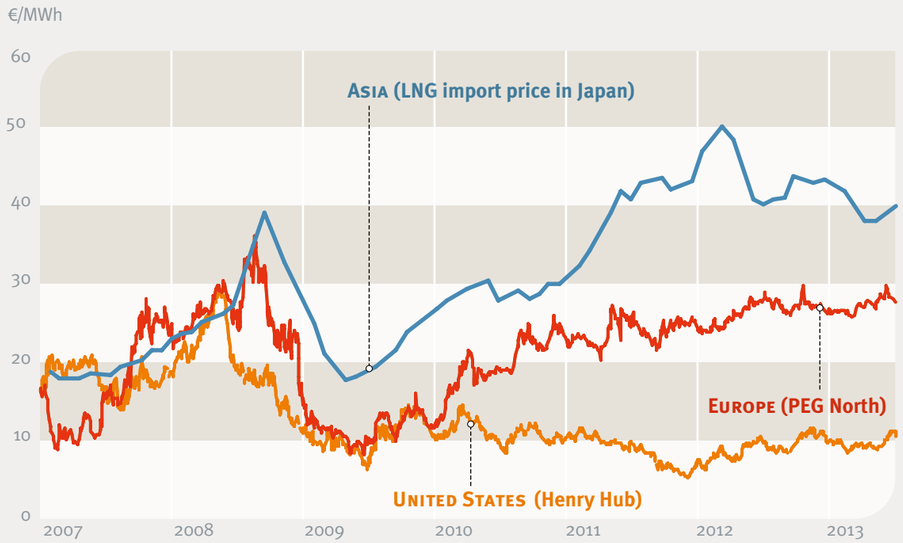
REDIRECTION OF GAS EXPORTS FROM THE MIDDLE EAST

Major trade flows of natural gas in 2012 (in billions of m³)



Source: BP Statistical Review of World Energy, June 2013

Price of gas in Europe, the USA and Asia



Sources: Argus, Bloomberg, Heren

1. GLOBAL ENERGY GEOPOLITICS, THE NEW STATE OF AFFAIRS

The introduction of competition in electricity and gas has strengthened the influence of international dynamics on the operation of the French market. However, in recent years, the energy sector has been subjected to a set of shocks that have affected the supply and price formation with four major events: the increase in the price of oil since the year 2000, which rose from $27 in 2000 to more than $100 per barrel in 2013, the large-scale production of non-conventional hydrocarbons in the United States, the Fukushima disaster in 2011 and, finally, the strong development of renewable energy, particularly in Europe.

At the same time, the balance of consumption has been strongly affected, with a very strong growth in the needs of emerging countries, with Asia leading the way, and a relatively sluggish consumption by industrialised countries, largely due to the economic crisis, which has been raging since 2008. Natural gas has been one of the main factors of change.

1.1. GAS MARKET REVOLUTIONS

The revolution of shale gas in North America has radically changed the positioning of the United States on the international scene. Benefiting from a steep decline in favourable prices in their industry, in just a few years, they have gone from a gas importer to a potential exporter. However, the export capacity of liquefied natural gas (LNG) put into service in the world at the end of the first decade of this century was largely intended for the American market. This unprecedented situation has temporarily translated into an excess of supply at global level, which has encouraged the development of trade on the wholesale markets and the emergence of a market price lower than the price of long-term supply contracts, indexed to the price of oil. In this context, European importers with long-term contracts have entered into discussions with producers to redefine the price of their supplies and incorporate an indexing part on the prices of the most developed European wholesale markets, in addition to the historic indexing to oil.

1.1.1. The development of LNG and its consequences

The international gas trade grew by nearly 80% between 2002 and 2012, with a strong development of LNG, which represented approximately one third of the international trade in 2012. The bulk of the export capacity (71%) is now located in the Middle East and in the Pacific basin. The needs of Asia, which received more than 70% of world imports of LNG in 2012, have at the same time increased sharply from 2011 to 2012, driven by Japan whose imports have increased by 9% compared to a year ago, mainly because of replacing gas for nuclear because of the Fukushima disaster.

The Middle East has been the main supplier to meet this new demand, by redirecting the flow initially intended for the Atlantic basin, including the European Union (EU). In 2012, the EU's LNG imports fell by 27% compared with 2011. This fall in LNG imports continued in 2013, causing an increase in European wholesale prices, influenced by the very high levels of Asian prices ($17/MBtu in 2013, compared with $10 in Europe and $4 in North America). In spite of the very different price levels depending on the region, market stakeholders' decisions between the various supply sources are reflected by the cross-influences between Asia and Europe. The absence to date of liquefaction terminals allowing the United States to export their production of unconventional gas in the form of LNG limits the influence of the low prices observed in this country on gas prices in other regions of the world. However, the United States has many plans to export LNG, which, once up and running, could affect prices.

1.1.2. Is Europe a region apart from "the golden age of gas"?

In 2011, the International Energy Agency had predicted a golden age of gas. Its availability and its environmental benefits were to increase its share in the global energy mix from 21% in 2011 to 24% in 2035. Current demand is mainly driven by

IN 2012, THE EU'S LNG IMPORTS FELL BY 27% COMPARED WITH 2011

EUROPE HAS TO FACE A DECLINE IN GAS PRODUCTION IN THE NORTH SEA, WHILE ENGAGING IN A STRATEGY OF DIVERSIFYING ITS SUPPLY TO REDUCE ITS DEPENDENCE ON RUSSIAN GAS.

Asia, as well as by Latin America and the Middle East. China is the third biggest consumer of gas, behind the United States and Russia. This trend should continue in the context of the development of economic activity and research into reducing air pollution caused by the massive use of coal.

With a drop in consumption of 2.2% between 2011 and 2012, after a fall of 10% the previous year, Europe is one of the few regions of the world where the demand for gas is not rising. The main factors are the decline in economic activity and less gas being used in electricity generation. In the electricity sector, gas has to compete with renewable energy, which benefits from priority access to the market and guaranteed purchase tariffs, but also competition from coal which has become very cheap due to the current surplus of supply on the world market (the United States has become a large-scale exporter as non-conventional gas has replaced coal on its internal market). This is complemented by the historically low prices of a tonne of CO_2, which do not encourage replacing coal with gas. Gas-fired power stations are seeing their utilisation rate decrease, which affects their profitability and has caused operators to put some of them in extended shutdown.

1.2. NEW PRODUCTION BALANCES

Conventional gas resources are mainly concentrated in the Middle East, Russia and central Asia. However, the taking into account of non-conventional reserves showed a much more balanced global distribution. The new production balances will influence the long-term prospects of the gas market. In addition to the United States, which has extensive unconventional gas resources, new countries are fuelling the interest of international companies to exploit their offshore gas resources, particularly in the Eastern Mediterranean and East Africa. With 11% of proven gas reserves, the countries of the Caspian Sea are being called on to play an increasing role in the supply of large consumption areas, placing them at the heart of the competition between their historic Russian partner, the countries of the European Union and Asia. Middle Eastern countries however, still play a key role on the world energy scene as they have 50% of proven oil reserves and more than 40% of conventional natural gas reserves, with a preponderant role for Qatar, the world's biggest exporter of LNG.

The emergence of new producing countries such as Australia or China, which have considerable potential resources of shale gas, will only partially meet the growing needs of the Asian continent. Faced with these prospects for a strong increase in gas production in all regions of the world, Europe is an exception. It has to face a decline in gas production in the North Sea, while engaging in a strategy of diversifying its supply to reduce its dependence on Russian gas. Considering the uncertainties weighing on the development of unconventional gas resources in Europe, it is unlikely that domestic production will change the state of affairs in the medium term.

1.3. GEOPOLITICAL AND ENERGY OUTLOOKS REMAIN STRONGLY TIED TO THE PRICE OF OIL

The development of the place of LNG and the decline in demand in Europe have heavily impacted on the relationship between the European Union and its gas suppliers, starting with Russia. In fact, in 2009 and 2010, the oversupply situation relative to need led to a questioning of the role of historic long-term contracts. The latter, indexed to the price of oil, were actually becoming very expensive in relation to more short-term supplies. So importers wanted to renegotiate the tariffs by reducing the oil share in the price formulas. After having been very favourable to suppliers until 2008, power relations between exporters and importers were then rebalanced.

However, the positioning of Asia gives a new dimension to competition between importers. Therefore, the future is uncertain because, according to the export plans which will expire, future developments may well go in the direction of a relaxation rather than a strengthening of restrictions for importers.

More generally, the price of oil should continue to play a key role in the international energy dynamic in the medium term. Their level in fact conditions the costing of long-term gas supply contracts, particularly in Asia, and the profitability of unconventional American gas. If the price of oil were to fall, shale gas production could be weakened and the role of long-term contracts strengthened. This would then have an influence on the place of coal. The low level of gas prices in the United States causes effects of gas replacement for coal in the U.S. electricity sector and is reflected by an oversupply of coal on international markets and a drop in world prices. In this scenario, LNG could become more competitive than it is currently.

2. THE EUROPEAN ENERGY MARKET TAKES SHAPE

2.1. MAJOR PRINCIPLES

2.1.1. As part of the logic of the single market, the opening up of energy markets is based on a specific approach

The opening up to competition of the domestic energy market has been implicitly predicted since the Treaty of Rome of 1957. It even notes the general provisions relating to the free movement of goods and the establishment of an undistorted system of competition. The implementation of this treaty has not produced all its effects in the energy sector, particularly because of the specific characteristics of its operation; the first two European directives were adopted in 1996 for electricity and in 1998 for gas. They lay down the principle of freedom of choice for electricity and natural gas supplier and, on the one hand, organise the opening up of the production and supply markets, and on the other hand, the regulation and conditions of the independence of the natural transmission and distribution monopolies.
Since 2000, this policy has resulted in a rapid increase in trade. The pooling of resources has also resulted in savings by limiting the use of the most expensive production means. the recovery of investment in infrastructure. Finally, the formation of prices in many member states, and particularly in France, still only very partially demonstrates the spirit of free competition on the market.

2.1.2. The main challenges of constructing a European market

The reason for creating an integrated European energy market is to develop competition to benefit end consumers, to ensure security of supply and to facilitate the integration of variable renewable energies. The process of setting it up ranges from optimising the management of cross-border trade by harmonising the rules on interconnections and promoting investment through plans to develop networks. In this regard, by allowing a gradual convergence of national regulatory frameworks toward a reference

ASIA RECEIVED MORE THAN 70% OF WORLD IMPORTS OF LNG IN 2012

Coal has become very cheap because of the current supply surplus on the world market. This is complemented by the historically low prices of CO_2 quotas, which do not encourage the replacement of coal with gas.
© iStock

The challenge for the network codes is to achieve a common vision of what would be a successful European market and the degree of harmonisation necessary, while considering national or regional specifics.
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IN THE GAS SECTOR, 2013 WAS THE YEAR WHEN THE FIRST NETWORK CODE WAS ADOPTED

Developed by the European Network of Transmission System Operators for Electricity and Gas (ENTSO-E and ENTSO-G) associations, European network codes constitute common rules on various cross-border issues listed in Community regulations. They can become legally binding by means of comitology if the Agency for the Cooperation of Energy Regulators (ACER) makes a recommendation to this effect to the European Commission.

The drafting of the network codes laid down by the legislative Third Package is complex, due to its strategic dimension for member states. The challenge is to achieve a common vision of what a successful European market would be and the degree of harmonisation required, while considering national or regional specifics. The CRE plays a role in the various drafting stages of the network codes.

In electricity, it largely contributed, in the course of 2013, to the drafting of the codes relating to the management and use of interconnections, connecting users, as well as to the operational management of the electricity system by its active participation in the drafting of ACER's opinion and its monitoring of the adoption process coordinated by the European Commission.

In the gas sector, 2013 was the year when the first network code devoted to gas transmission capacity allocation mechanisms was adopted. Published as a regulation of the European Commission on 14 October, it is the result of four years of work, co-directed by the CRE as regards the ACER's contribution.

A second network code, dedicated to balancing transmission networks, received a favourable opinion at the conclusion of the comitology procedure, in October 2013. A third code, devoted to the interoperability of transmission networks, was completed by ENTSO-G at the end of 2013 and must be adopted by comitology in 2014. The next network code will focus on harmonising the pricing structure for the use of gas transmission networks, whose drafting began in January 2014 based on the policy framework adopted by ACER on 29 November 2013, under the co-direction of the CRE.

TRANSPOSITION: ACTIONS OF THE EUROPEAN COMMISSION

The European Commission shall ensure that member states transpose and apply European legislation. To achieve this, it can initiate non-fulfilment proceedings and pursue member states, which have failed in their obligations before the European Union Court of Justice. In 2013, no less than 25 member states were the subject of non-fulfilment proceedings concerning provisions related to the energy sector. The majority of them were for non-fulfilment of the transposition of Directives 2010/31/EU and 2008/28/EC, relating respectively to the energy efficiency of buildings and renewable energy. The French State has, for its part, been the subject of several European Commission procedures, and in particular of two actions for failure to fulfil an obligation launched in 2006 for the incorrect transposal and a breach of the electricity (2003/54/EC) and gas (2003/55/EC) directives.

While the action concerning the electricity directive was classified in early 2012, on 31 May 2012 the European Commission sent France a supplementary reasoned opinion concerning the mechanism of regulated tariffs applied to the French gas market, stressing the non-compliance of the regulated prices system with the European Union's legal requirements. To date this procedure is ongoing.

In addition, the Commission has initiated two procedures relating to the observance of the European rules on state aid in the energy sector. In March 2013, the Commission opened a formal investigation procedure of the exemption of network rights granted to large electricity consumers in Germany.

In December 2013, an investigation was opened on the conformity of the German mechanism intended to finance renewable energy sources, the latter seems to give a selective advantage to electricity-intensive firms.

organisation model, the implementation of European network codes, which are in the process of being drafted, will strengthen the structure of interconnections and wholesale electricity and gas markets. It should, therefore, contribute to the emergence of price signals representative of efficient market operation.

Discussions began in 2009 and led to the adoption of the first network code for gas in October 2013 › see box opposite. Other codes will start to be adopted in 2014 and 2015. Nevertheless, European regulators and transmission operators are mobilising now and anticipate the application of these texts within the framework of pilot projects in order to put the principles of markets organisation backed up by network codes in place as soon as possible. Two difficulties must, however, be overcome: discrimination in terms of access to networks and differences in regulations, when they disrupt cross-border energy trade. The CRE, in cooperation with other regulators and ACER, has significantly contributed to removing those obstacles, and using the improvement of technical interoperability and increasing the separation between the electricity or gas supplier and transmission company for priority work areas. The strengthening of cross-border cooperation between regulatory authorities has also already allowed a remarkable simplification of access to interconnections.

The success of the integration of the energy markets in Europe also relies on an effective European policy on the supervision of State aid likely to affect trade between member states, by favouring certain companies or the production of certain goods. In 2013, the European Commission launched a review of its guidelines on State aid relating to environmental protection, with the objective of extending them to the energy sector while clarifying and simplifying the procedure for assessing aid provided by States.

Finally, the construction of European markets must be based on the objective of promoting less energy consumption and reducing greenhouse gas emissions. The climate and energy package adopted by the European Commission on 23 January 2008

The United States has many plans to export LNG that, once up and running, could affect gas prices.
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THE ESTABLISHMENT OF A SPECIFIC DEVICE IN 2013 NOW ALLOWS STAKEHOLDERS TO TRADE NOT ONLY VOLUMES OF ELECTRICITY PRODUCED, BUT ALSO DEMAND RESPONSE CAPABILITIES ON WHOLESALE MARKETS.

pursues a triple objective in this regard by 2020, the "3 x 20", basically to reduce greenhouse gas emissions and energy consumption by 20%, while increasing the amount of renewable energy in the energy mix by 20%. France has set itself a more ambitious target in terms of renewable energy, by setting their share of total final energy consumption at 23% by 2020.

2.1.3. Different principles apply to gas and electricity value chains

Electricity: domestic production

In France, the electricity value chain is mainly characterised by domestic production, influenced by the price of imported fuels and that of greenhouse gas emission quotas. This activity is an exporting activity. The energy is traded OTC or through marketplaces, on which market coupling progressively optimises the allocation of means, within the limit of cross-border electricity trading capacity. The establishment of a specific device in 2013 now allows stakeholders to trade not only volumes of electricity produced, but also demand response capabilities on wholesale markets. The short-term security of supply of the electricity system is ensured by the creation of reserves and the balancing mechanism, which are governed by increasingly competitive principles. The establishment in 2014 of a capacity mechanism will enable the emergence in the medium term of a price signal favouring investment in cutting-edge production and the development of demand response. The specific nature of the French market and energy policy considerations have also led to the establishment of transitional regulated devices: the ARENH for incumbent nuclear production and a purchase obligation for electricity produced by renewable energy. The retail market is still quite widely dominated by regulated tariffs. However, they will be cancelled at the end 2015 for large business customers.

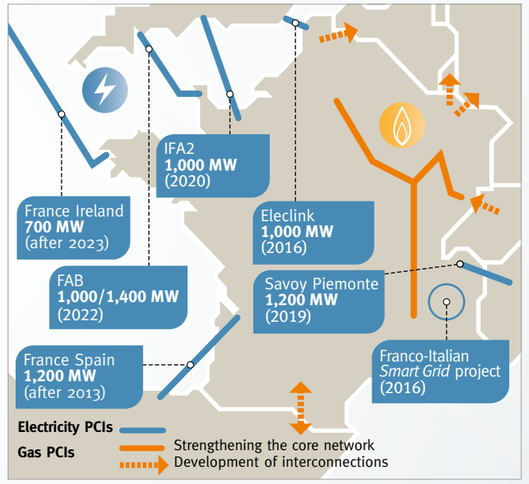
Natural gas largely imported

The gas value chain is characterised upstream by largely resorting to imports, by pipelines or liquefied natural gas, while the share of domestic production is declining and covers less than a third of the European Union's needs. In this context, cross-border interconnections play an essential role in the supply of most of the member states: 60% of gas consumed passes through at least one border. In France, the quasi-totality of the gas consumed is imported and more than 40% is transmitted through other countries of the European Union.

The organisation of the gas market must therefore be used to meet the needs of consumers safely and competitively by effectively coordinating generation, imports, transmission, storage and distribution. Historically dominated by long-term contracts indexed to the price of oil, supply is increasingly moving towards wholesale markets, still called gas hubs. Issuing price signals revealing the tension between supply and demand, the hubs are at the heart of the market model put in place in Europe. This model is about creating interconnected market zones big enough in size to boost the liquidity and appeal of the wholesale market. In France, the number of market zones has been gradually reduced to three and should drop to two in 2015 with the merger of the GRTgaz South and TIGF zones. In order to further strengthen competition, a single zone could be put in place in 2018.

PROJECTS OF **COMMON INTEREST**

On 14 October 2013, the European Commission adopted a list of 248 energy infrastructure projects called «projects of common interest» or PCI. These projects, which are recognised as essential to the implementation of the European energy policy, may in particular be subject to expedited procedures for granting administrative permissions or cross-border cost allocation agreements. They will be eligible for EU subsidies.



In France, nine electricity projects have received the status of PCI: the Smart Grid project to improve the integration of renewable energy in regions in the south of France and in north-east Italy and eight cross-border electrical infrastructure projects (with Spain, Britain, Italy, Belgium and Ireland). Out of these eight projects, RTE and one by a private investor (ElecLink) support seven. For gas, the nine projects selected must facilitate gas circulation on a north-south axis in Western Europe. They must allow the creation of physical reverse flows to Belgium and Germany and from Italy through Switzerland. They also aim to strengthen interconnections with Spain and ease congestion between the north and the south of the French transmission network.

THE EUROPEAN MARKET CONFRONTS THE DIVERSITY OF NATIONAL CHALLENGES

Despite growing integration, the markets of each member state of the European Union remain heavily influenced by the legacy of national policies and are faced with very different problems that bring security of supply into play.

Due to the high penetration of electric heating, France is characterised by a high thermo-sensitivity of electricity consumption. Despite a largely overcapacity generation system on average, the margin of the cutting-edge system is in decline. Yet, owing to the fall in wholesale prices, combined-cycle gas plants are struggling to find a viable economic area.

With a generation system largely geared towards coal and gas, Great Britain is facing a baseload production deficit. It intends to remedy this, in particular, by building nuclear reactors. In a context of uncertainty linked to markets upstream and to the subsidy policy of renewable energies, producers wanted to benefit from a guaranteed average price derogation system.

In Germany, the sustained development of wind power generation in the north is leading to electricity transmissions to the south, which saturate centre-west European transmission network. In a context of leaving nuclear power behind, the generation capacity that would enable these flows to be rebalanced is insufficient and has led to the formation of a strategic reserve in the south of the country.

Bringing the complementarity of the European production mix into play, by increasing the integration of markets, both by developing infrastructure that constitutes the first solution to security of supply through more efficient capacity allocation mechanisms. However, careful consideration is needed on a European scale on the means to achieve a better link between investment in production, the potential for demand response and investment in the transmission infrastructure needs.

The models of national markets in place in 2013 show substantial diversity, strongly influenced by problems specific to each country.
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ONE OF THE AMBITIONS OF THE LEGISLATIVE THIRD PACKAGE IS TO OVERCOME THESE DIFFERENCES, IN RESPECT OF THE CHOICES SPECIFIC TO EACH MEMBER STATE, TO PROMOTE THE INTEGRATION OF MARKETS.

2.2. GRADUAL IMPLEMENTATION WHICH REQUIRES INCREASED COOPERATION

2.2.1. The creation of the European internal market relies on the integration of heterogeneous national frameworks

The convergence of national frameworks toward a common set of rules lies at the core of achieving an internal energy market. On a technical level, cross-border cooperation has existed for a long time for network management, in order to strengthen the security of supply. In contrast, from an economic angle, and although they are all based on European directives, the models of national markets in place in 2013 show substantial diversity, strongly influenced by problems specific to each country (such as the structure of the supply, the level of infrastructure development or even consumption profiles). One of the ambitions of the legislative Third Package is to overcome these differences, in respect of the choices specific to each member state, to promote the integration of markets. This involves, in particular, the establishment of European network codes › see box p. 28 and, in the absence of a common energy policy, increased coordination.

2.2.2. From monopoly to competition: a difficult progression

Electricity producers provide the market with a perfectly homogeneous and substitutable product. However, the European electricity market still has features that are far removed from a pure and perfect model of competition. Highly concentrated production activity is a legacy of historical monopolies. This concentration is aggravated by barriers to entering and exiting the market, related to the complexity of the technical conditions and regulations for the construction and operation of the works, which is, by nature, very capital intensive and with a long lifespan of assets, as well as the existence of scale effects. This rigidity of the market also results in the shorter-term, from the difficulty of storing electricity.

Despite significant progress, interconnection capacities do not yet allow a satisfactory convergence of prices and choices on the installation of production units result more from political considerations than the economic confrontation of supply and demand. In addition, in contrast to most sectors, this industry has not known, for the time being, of a technological breakdown sufficient to disrupt the economic hierarchy.

On the contrary, the productivity of conventional industries is declining due to more stringent environmental or security restrictions and alternative industries remain, for the most part, non-competitive. In this context, the regulations are trying to correct inefficiencies in the market in order to foster emulation between producers and to guarantee to the consumer being able to benefit from the best service, at the best price.

2.2.3. Consumers would benefit from a better coordination of the definition and the implementation of the objectives of the European energy policy

In the field of energy, the European strategy is based on two main policies: on the one hand, the opening up and integration of markets and on the other hand, trying to reduce greenhouse gas emissions.

If the period of relative prosperity in the early 2000's enabled member states to consider ambitious objectives, the crisis in 2008 and the geopolitical developments have subjected the model to new constraints. Furthermore, the various aspects of these policies have not been sufficiently coordinated, even though there are strong interactions between them.

The functioning of the market is disrupted by the subsidies granted to the various energies. The short-term security of supply has been strengthened effectively, but questions remain on the incentives to maintain a balance between supply and demand in the medium term. Greenhouse gas emissions have fallen because of the decline in activity, but the most effective technologies are not very developed. Finally, energy prices have contributed to a deterioration in the competitiveness of the European Union in respect to the rest of the world, exacerbating industrial activity relocation factors.

For the future, competitiveness and environmental challenges will not only concern the optimisation of the operation of the internal energy market, but also the taking into account of the global context. The European energy policy will only be economically sustainable if it preserves the competitiveness of European economic actors in relation to their competitors on the world market. Europe cannot be satisfied with the progress achieved in the development of competition and the preservation of the environment within the Union if this policy leads to the transfer of polluting activities outside its area of sovereignty and to an increase in imports of manufactured products.

FRANCE HAS SET ITSELF A TARGET
IN TERMS OF RENEWABLE ENERGY, BY SETTING THEIR SHARE OF TOTAL FINAL ENERGY CONSUMPTION AT
23%
BY 2020

The trading floor of EDF Trading in London.
© AFP – Nicolas Asfouri

THE WHOLESALE MARKET IS SPLIT INTO FOUR SEGMENTS, WITH DIFFERENT OBJECTIVES

- ***The day-ahead market:*** *enables the demand for electricity to be met by calling on the most economical resources. It is essential for the proper functioning of markets and allows each stakeholder to balance their positions. It contributes to revealing a price representative of the system's voltage level.*

- ***The infra-daily market:*** *allows stakeholder to adjust their positions by taking new information into account, such as climatic variations, technical non-availabilities, etc.*

- ***The balancing mechanism:*** *specific to the electricity market, it allows RTE to ensure the physical balance of the system, from a local or national perspective, and deal with production or consumption risks.*

- ***The futures market:*** *this is the one that gives greater visibility to market players and allows them to cover their financial risks. The price that emerges from it should send a signal for investment.*

These different products are traded on two types of market: on the one hand, a completely decentralised market based on bilateral contracts and, on the other hand, a market based on a centralised auction that determines the prices and quantities for all energy transactions.

In application of articles L. 131-2 and L. 131-3 of the [French] Energy Code, the CRE has been monitoring, since the end of 2006, transactions carried out by actors active on the French electricity and gas wholesale markets and, since the end of 2010 in cooperation with the Financial Markets Authority (AMF), transactions on CO_2 quotas performed by these actors.

GAS:THE LONG-TERM CONTRACTS WERE RENEGOTIATED

In France, most gas is imported from Norway, the Netherlands, Russia and Algeria through long-term contracts. These are OTC contracts between the French suppliers and the producing companies in these countries and are generally concluded for long periods (20 or 30 years).

They usually contain 'Take or Pay' type clauses: the seller guarantees the provision of gas to the buyer who then secures their supply. In return, the buyer guarantees the payment of a minimum amount of energy, that it may or may not take delivery of. Therefore, the seller secures business over a long period, necessary to invest in very capital-intensive exploration, production and transmission activities.

The price of long-term contracts was traditionally indexed to the price of oil products. The growth of non-conventional gas in the United States, since 2009 the growth of natural gas liquefaction capabilities in the world and the emergence of wholesale gas markets in Europe has led to a disconnection between the wholesale price of gas and the long-term price of contracts. This disconnection still persists in 2013 and has led many European suppliers to renegotiate their supply contracts with companies in producing countries. This has enabled an increase in the indexing share on gas markets and a reduction of that of the indexation on oil products.

In France, these renegotiations are translated by the successive revisions of the formula of regulated tariffs for the sale of gas with a share indexed to the increasingly significant wholesale market: the decree of 27 June 2013 relating to regulated tariffs for the sale of natural gas, brings the share indexed to the wholesale markets for natural gas to 45% in the formula for calculating the supply costs of GDF SUEZ. It was only 9.5% in 2011 and 20% in 2012.

2.3. NEW ENERGY ISSUES FOR EUROPE

2.3.1. The future of European nuclear after Fukushima

The Fukushima nuclear accident took place on 11 March 2011. This disaster led to a new direction of opinion and policies with respect to nuclear energy. A number of countries, including Germany and Belgium have decided to discontinue with their nuclear production chain. These decisions will result in significant changes in the production mix of European countries with effects on price, security of supply and environmental constraints.

France is considering continuing with this technological path, by reducing its weight in the energy mix to an extent, which remains to be defined, and by increasing safety requirements. As the CRE could see in its analysis of the production costs of EDF published in June 2013, investment expenditure in French nuclear power plants should increase significantly in the years to come, particularly because of these requirements. As a result of the French Nuclear Safety Authority (ASN) recommendations arising from its report on the additional safety assessment, EDF estimated the cost of the investments required to meet the new safety standards to be €10 bn in 2012 over 15 years - which include the creation of a nuclear quick response force and the installation of emergency diesel generators.

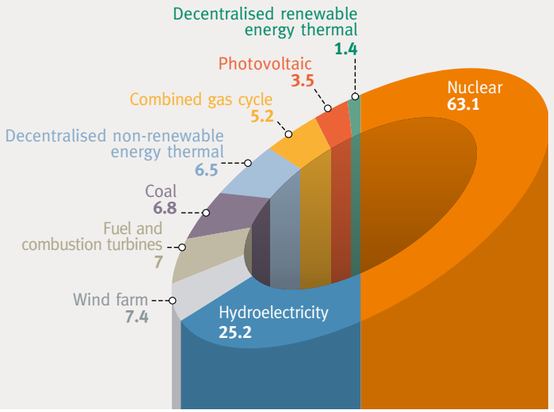
2.3.2. The system of trading CO_2 quotas has led to the emergence of a price signal sufficient to influence investment

Since 2005, the European Union has put in place an emission quotas trading system (EU ETS), designed to encourage nearly 12,000 plants to reduce their CO_2 emissions. However, even if the volume of trade on the EU ETS is significant (approximately 9 billion tonnes of trade quotas on stock exchanges in 2013), the quota price (€4.46/tCO_2 on average for 2013) is too low to support the production of electricity from less polluting raw materials, especially gas in relation to coal. This phenomenon has been even more pronounced since 2011. It does not encourage investment in low-carbon technologies.

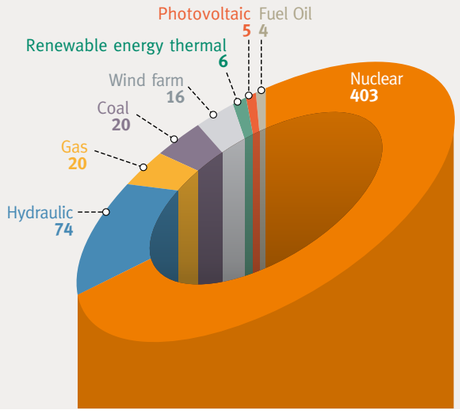
The low carbon price level can be explained, on the one hand, by the accumulated surplus of quotas in circulation since 2009, as a result of the economic crisis which resulted in a decrease in production and emissions, and on the other hand by the influence of other European energy commitments, in particular the objective of increasing the share of renewable energies in the energy mix.

45%
THE SHARE INDEXED TO THE WHOLESALE MARKETS FOR NATURAL GAS
IN THE FORMULA FOR CALCULATING THE SUPPLY COSTS OF GDF SUEZ

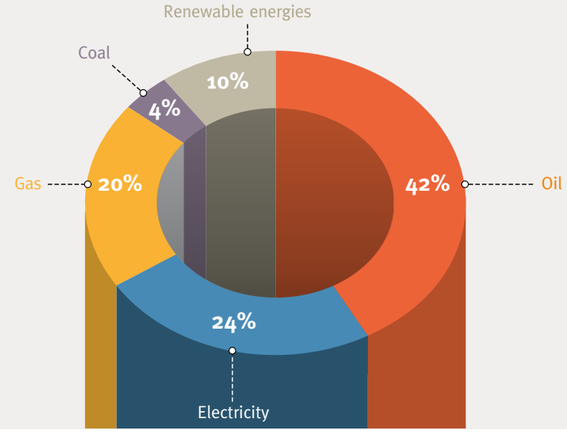
Electricity production capacity installed at 1 January 2013, in MW



Electricity production in 2013, in TWh



Distribution of the total final energy consumption according to energy source



3. IN FRANCE

3.1. ENERGY BALANCE

3.1.1. The case of natural gas

Fossil energy emitting low levels of CO_2 and with very good energy efficiency, natural gas has made up approximately 15% of the primary energy consumption in France for more than five years. The production of natural gas in France is almost zero; the country's supply relies almost exclusively on its imports, by overland route via pipelines or by sea via LNG carriers. In 2013, 84% of the French gas supply came from overland interconnections, 40% of which came from Norway, 16% from the Netherlands and 20% from Russia. LNG then represented 16% of the gas imports, 69% of which came from Algeria. Gas consumption forecasts for France have now been revised downwards. This phenomenon is the result of several factors: the economic crisis, which has limited consumption, the reduced profitability of combined-cycle gas power plants after a fall in production costs of coal-fired power plants and, finally, efforts to reduce energy consumption. These elements have reduced the economic attractiveness of gas and halted plans for gas-fired power stations. The supply of LNG has declined sharply in Europe, following the effect of the strong Asian demand that attracts the majority of LNG carriers. This situation especially affects the south of France area, which depends strongly on arrivals of LNG to the LNG terminals in Fos.

3.1.2. The case of electricity

At 1 January 2013, the electrical production capacity installed amounted to 126 GW in France, an increase of 1.6% compared to 1 January 2012. The capacity of fossil-fuel powered production increased slightly, the connection of combined-cycle plants gas (+0.7 GW) offsetting the reductions in capacity of coal plants (-0.1 GW) and decentralised thermal power stations (-0.4 GW). The wind and photovoltaic capacities posted respective increases of +0.7 GW and +1.1 GW.

In 2013, electricity production reached 550 TWh, an increase of approximately 10 TWh compared to 2012. Nuclear production has remained stable, and counted for 74% of total electricity production, while production form hydraulic power stations has increased to 11 TWh, to represent 14% of electricity production. The decline in production from the gas sector (-5 TWh) has been partially offset by increasing production from coal (+3 TWh). Finally, wind and solar generation has increased by 1 TWh each, amounting to 3% and 1% of the production mix respectively. On the borders, the net exporter balance has increased by 13%, to 50.2 TWh, largely due to the fact of the improved availability of the interconnection with England. Trade on other borders has remained stable; France remains a net importer from Germany.

3.1.3. The place of electricity and gas in final energy consumption

In 2012, total final energy consumption amounted to 154 Mtep, down 0.5% compared to the previous year. There is a large predominance of oil in the final energy consumption mix. However, after a quasi-continuous progression from 1986 to 2002, its share has started to decline, before dropping very sharply with the crisis of 2008 (-3.6% and -3.2% respectively in 2009 and 2010). In 2012, oil consumption was at the same level as in 1985 (65 Mtep).

Gas consumption has increased sharply since the 1980's to reach its peak in 2005, at 35 Mtep, +98.8% since 1981. It started to decline from 2006 onwards to reach 32 Mtep in 2012 (-11.9% over this period). Gas then represented 20% of final energy consumption.

With regard to electricity consumption, the economic crisis marked a stop to its uninterrupted growth over three decades. In 2012, it was at the 2010 level (38 Mtep) and represented 24.7% of final energy consumption, compared with an average of 19% in the European Union. This bigger weighting is explained by a higher electrical heating equipment rate in France than the European average. French electricity consumption is therefore much more sensitive to climatic variations, especially in winter.

OPERATION OF INTERCONNECTIONS:
INCREASING TRANSPARENCY

In addition to the careful monitoring that it ensures permanently on the operation of the interconnections in electricity, the CRE has published a monthly report on the use and management of electrical interconnections on the French borders since July 2013. This report presents six core indicators of the operation of interconnections, as well as «highlights» analysing the specific phenomena of the month concerned. The analyses presented are the link between effective use of interconnections, projects to establish European target models and market fundamentals.

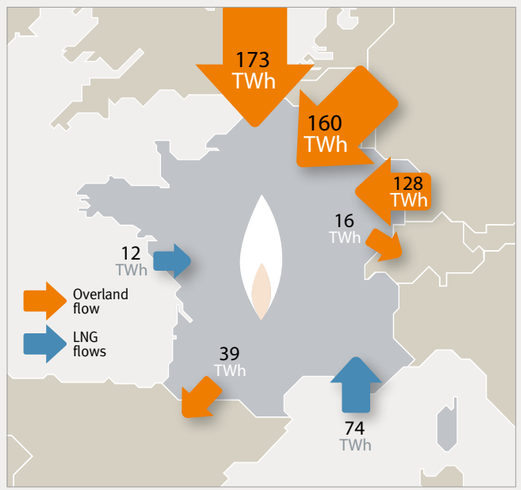
3.2. PROGRESS OF THE ENERGY MARKET IN FRANCE IN 2013

3.2.1. The French market is continuing its integration into the European market

European legislation is seeking to create an integrated market for electricity and gas, making the national markets components of a European whole. The quality of the integration of networks constitutes a determining parameter, which involves overcoming barriers related to differences in rules or practices both sides of the borders. The Third Energy Package therefore gave a special place to the harmonisation of mechanisms for the capacity allocation and management of congestion on transmission networks.

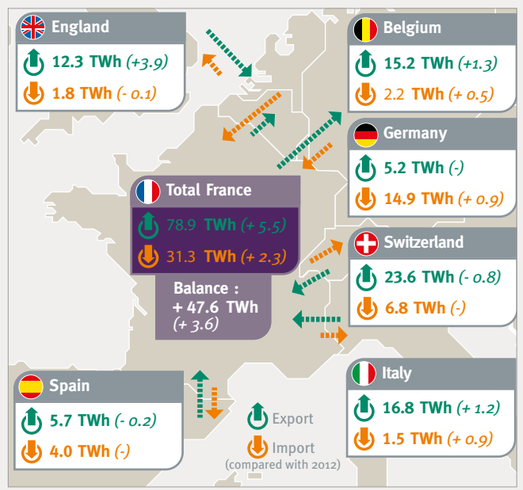
+3 TWh
INCREASE IN THE PRODUCTION OF ELECTRICITY FROM COAL IN FRANCE
IN 2013

Gas flows at borders 2013



In 2013, the market conditions in the various regions of the world have led to LNG flows being mainly directed toward Asia.
The low inputs of gas on the French LNG terminals (-20% compared to 2012) have been offset by an increase in flows on gas pipelines from the north and east of Europe (+5% compared with 2012).
Gas flows to Spain have also increased (+10 %), LNG terminals in this country are also barely used.

Electricity flows at borders in 2013



With regard to the trade in electricity, France recorded a net exporter balance of 47.6 TWh in 2013, an increase of 3.6 TWh compared with 2012. As in 2012, France was a net exporter on all of its borders, except with Germany. For this border, the net balance went from -8.8 TWh in 2012 to -9.7 TWh in 2013. The improvement of the exporter balance reflects, on the one hand, a better availability of the interconnection with England, with a net balance of + 10.5 TWh, an increase of 4 TWh compared with 2012, and on the other hand, an increase in exports on the Belgian border, due to rising Belgian prices following the prolonged unavailability of 2 of the 6 of the country's nuclear plants. On the other borders, the situation remained relatively stable, with a high level of exports to Switzerland and Italy (+16.8 and +15.3 TWh respectively). Lastly, on the Spanish border, the net balance also remained stable and France was an exporter, at just under 2 TWh.

IN 2013, THE CRE NOTABLY APPROVED THE MERGER OF THE ELECTRICITY MARKETS OF THE NORTH-WEST REGION OF EUROPE, AND, IN PARTICULAR, ITS EXTENSION BETWEEN FRANCE AND GREAT BRITAIN.

In electricity, the Regional Initiatives are a tool for improving the convergence of the mechanisms of use of French interconnections to the target model defined at European level. In 2013, the CRE notably approved the merger of the electricity markets of the North-West region of Europe, and, in particular, its extension between France and Great Britain. The CRE also approved new rules for the infra-daily allocation on the Swiss and German interconnections. These new rules introduce the continuous implicit allocation on the France-Switzerland interconnection by continuously trading on the electricity exchange.

In gas, the CRE is engaged in a process of implementing two key texts along with GRTgaz and TIGF in a gradual and coordinated way with regulators and operators of the transmission networks of neighbouring countries. The work on the network code harmonising transmission capacity allocation mechanisms began in 2013 on the interconnection points with Belgium and Germany. They will continue into 2014. After more than a year's work, the CRE published a resolution in June 2013 on the procedures for applying the new contractual congestion management measures adopted by the European Commission in October 2012.

3.2.2. The interconnections now enable the smooth exchange flows, even if some are still far from the target model

The development and good management of interconnection capacities are contributing to the fluidity of exchanges and therefore to the improved operation of the electricity markets. On the French borders, the improvement of the management of interconnections with different timeframes means that several objectives can be met: reduction of supply costs, integration of variable energies and contribution to security of supply. For this reason, electricity imports can play a crucial role during consumption peaks during the winter period. The year 2014 will be a pivotal year with the completion of major projects consistent with the target model, in particular the market coupling with England, Spain and Italy. With regard to the development of new interconnection capacities, RTE maintains its investment efforts. In 2013, trade capacities with Italy increased to 100 MW through the work of optimising the networks implemented in the Albertville region in 2012. An additional increase of 500 MW is expected on this border in 2014 with the completion of work on the internal Italian network. Moreover, work on the France - Spain interconnection continued in 2013, a year that saw the completion of the breakthrough of the tunnel under the Pyrenees and the end of the civil engineering work on the French side.

3.3. DIFFICULTIES AND CHALLENGES

3.3.1. Market prices very clearly dropping since 2011...

Market prices continued to drop in 2013. On the spot market, electricity is valued on average at €43.2/MWh for off-peak and €55.0/MWh for peak. These prices have fallen by 9% and 8% respectively compared with 2012. The declines are even more important on the futures market, where the prices of products Y+1 off-peak and peak are contracted at 14.5% and 16.5%: they are set respectively at €43.3/MWh and €56.6/MWh.

These developments on the wholesale markets for electricity are explained by important developments in the macro-economic context, such as the fall in demand in Europe due to the economic crisis, the development of unconventional gas in the United States, with the indirect effect of a decrease in the price of coal, and the very depressed price of CO_2. These macroeconomic developments and the massive expansion of subsidised renewable energies have structurally placed the electrical system of the Western European plate in a situation of overcapacity, dragging down market prices.

FRENCH-GERMAN BORDER:

A BETTER INTERCONNECTION USED THANKS TO MARKET COUPLING

Since November 2010, the market coupling mechanism put in place following the approval of the CRE allows better use of the available interconnection capacity on the French-German border and increased trade between the two countries. Although 48% of the time in 2013 the available capacity was sufficient for prices to converge, this is nonetheless insufficient.*

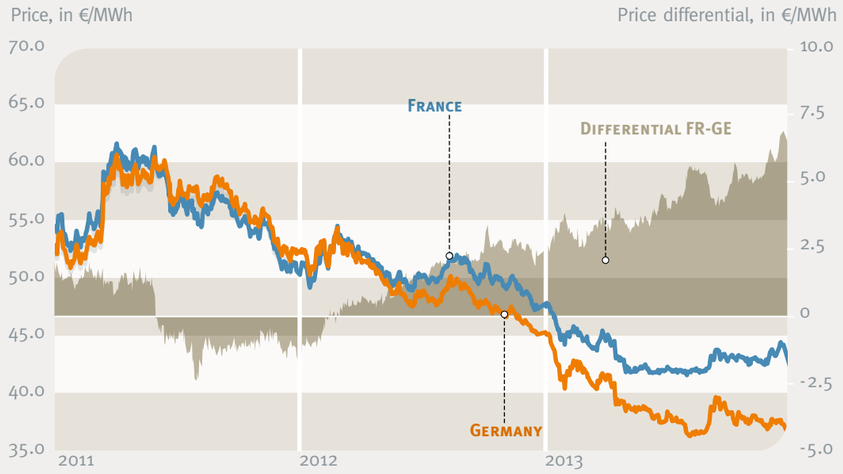
It is for this reason that the CRE is working on implementing a new more dynamic method for calculating capacity, which will enable more interconnection capacity to be allocated where the exchanges are the most relevant: flow-based.

The French-German border also has a mechanism for effectively managing infra-daily capacity, a timeframe that allows the use of residual capacity to manage risks that can occur close to real-time, such as a variation in the expected level of wind or solar production.

*Nevertheless, the price differential on the additional hours has been significantly reduced by cross-border exchanges.

THE PRICE DIFFERENCIAL BETWEEN THE FRENCH AND GERMAN WHOLESALE MARKETS HAS INCREASED

Calendar price of non-commodity products Y+1 in France and in Germany

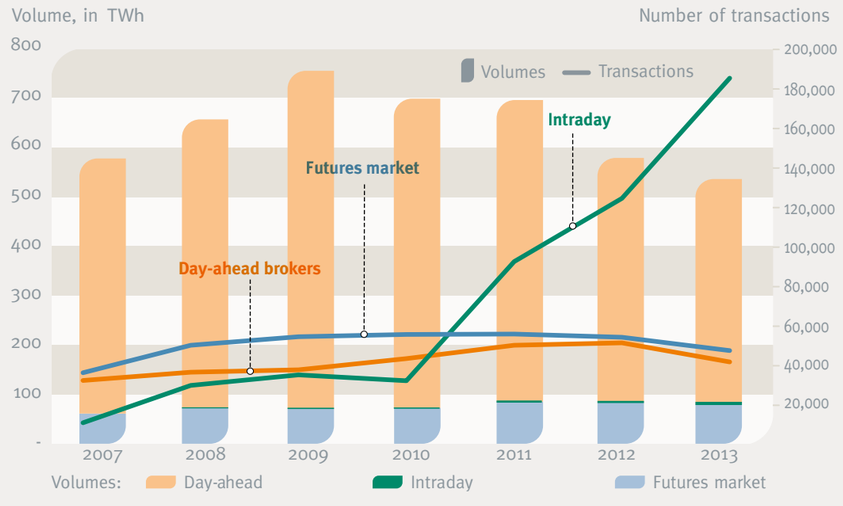


Source: EEX Power Derivatives

Compared to the previous year, the price differential between the French and German spot markets has increased by 26% in favour of Germany, to almost €5.5/MWh on average in 2013. The fall in prices is more marked in Germany, where the impact of the fall in prices of coal and CO_2 has been more marked. This increase in the variance of average prices between the two countries also demonstrates a more frequent saturation of the interconnection capacity between France and Germany, despite the market coupling. Therefore, the hourly price convergence rate between France and Germany increased to 48% in 2013, compared with 63% on 2012. Imported electricity from Germany regularly determines the market price in France, especially for peak times, with a consequent fall in the French average price. In addition, when the available interconnection capacity between Germany and France is sufficient, some episodes of negative prices in France may originate from Germany, where electricity production from renewable sources is sometimes very high.

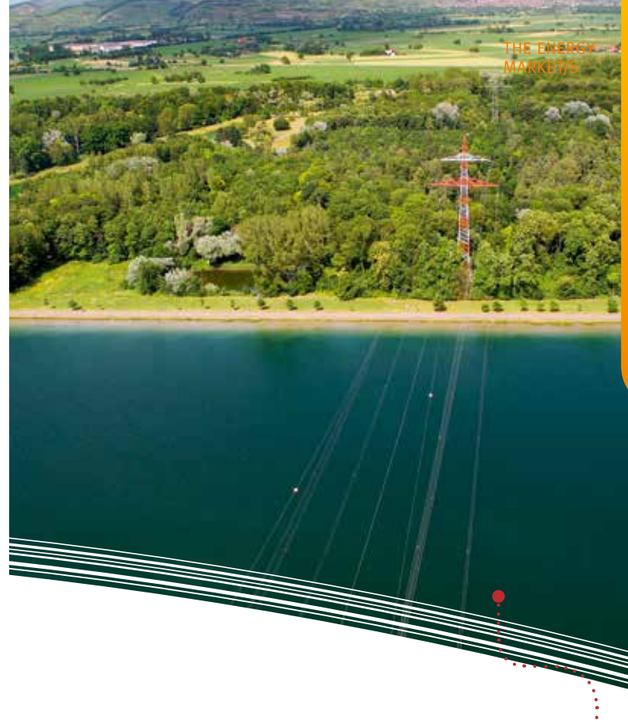
THE LIQUIDITY OF THE FRENCH WHOLESALE MARKET IS VERY LOW

Changes to the liquidity of the French wholesale electricity market



Sources: EPEX SPOT, EEX Power Derivatives, Brokers

In 2013, the volumes traded on the futures market amounted to 466 TWh, a decrease of 6 TWh compared with 2012. The day-ahead market saw its volume traded fall by 3 TWh compared with 2012, to 79 TWh. Finally, the intraday trading market is growing by 30%, with 4.4 TWh negotiated in 2013. The liquidity of the French electricity market is very low, especially in comparison with the German market. For example, in 2013, the EPEX SPOT France day-ahead market is four times smaller than the EPEX SPOT Germany day-ahead market. Whereas the EEX futures market is 59 times bigger for Germany than for France. This liquidity has reduced further in recent years, especially due to the fact of establishing regulated access to incumbent nuclear electricity (ARENH) for alternative suppliers, and its extension to the provision of networks operator losses since the 1 January 2014.



In 2013, France was the net exporter on all of its borders, except with Germany. Photo: International France Switzerland Germany link 2 x 400,000 V.
© RTE – Laurent Baratier

3.3.2. ... which create an unfavourable context for operating existing power stations and for investment

Due to the current level of market prices, the production and the profitability of gas-fired and fuel oil power stations is declining, their production costs are now too high to be retained in the order of economic precedence. Moreover, the prices of the futures market are now too low to encourage the development of new production means. Furthermore, this market only structurally provides visibility of the price in a limited outlook of three years, which is insufficient to make investment choices on the means of production.

All these factors have contributed to create significant tension on investments in means of production in Europe. The situation of gas combined-cycle power plants (CCPP) in France illustrates this trend. While the multi-annual investment plan 2009-2020 identified 20 gas combined-cycle power plants in development having obtained authorisation to exploit, we now find a complete freezing of investment in this sector which is not considered profit-

EDF'S PRODUCTION AND MARKETING COSTS: THE ANALYSIS OF THE CRE

In June 2013, the CRE published its «Analysis of EDF's production and marketing costs in the framework of regulated tariffs for the sale of electricity».

This study detailed all of EDF's supply costs recorded in the period 2007-2012 and forecast for the period 2013-2015, with the aim of increased transparency and in order to clarify government choices on the trajectories of tariff changes to be envisaged upstream.

It is clear from this analysis that EDF supports the accounting production costs comprising 75% of fixed costs, particularly because of the industrial nature of the company that owns very important electricity generation plants mainly comprising nuclear power plants whose construction, operation and decommissioning constitute highly capital-intensive activities.

This accounting production cost of EDF, combining capital charges (+2.9%/year) which reflect the weight of investment in accounts through depreciation and fixed operating costs (+5.1%/year) which correspond in particular to the company's payroll and to purchasing maintenance services, and variable operating costs +5.1%/year) mainly due to fuels consumed, increased over the 2007-2012 by 4.5%/year. This upward trend is likely to continue in 2015, according to the forecasts submitted to the CRE by EDF.

Marketing costs changed by 6.3%/year over the period 2007-2015, notably due to the development of new information systems and the creation of the energy savings certificates scheme.

-9%

FALL IN THE PRICE OF OFF-PEAK ELECTRICITY ON THE SPOT MARKET

COMPARED TO 2012

able in the current conditions, while the prolonged shut-down of existing facilities is envisaged, or even already effective for some.

3.3.3 ... and contribute to the emergence of paradoxical situations both for producers and consumers

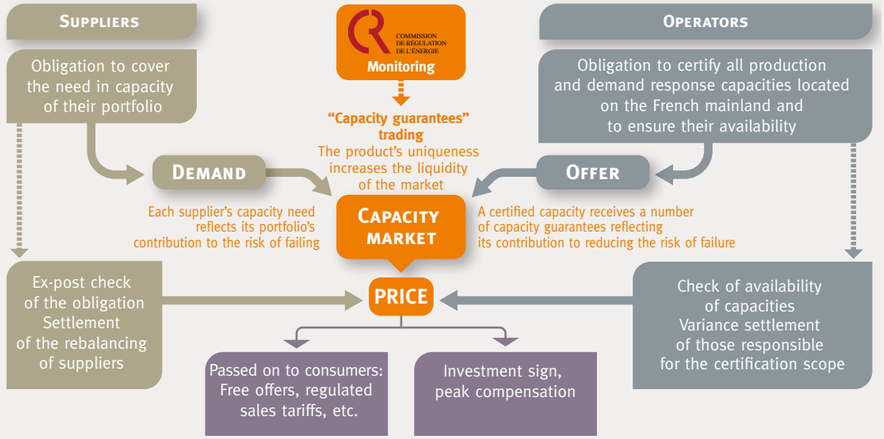
The fact of the significant development of renewable energies in Germany and France and the latter's overcapacity situation since the commissioning of the nuclear power plants, the European electricity system is now, on average, in a situation of overcapacity. In addition, the particular global context of the sector that characterises the period 2011-2013 and a persistent economic crisis, contribute significantly to depressing market prices.

This situation reveals two paradoxes. In the first place, while market prices are falling, consumers' bills are rising steeply all over Europe, and particularly in France and Germany. This is largely due to the increase in taxes and contributions needed for renewable energy subsidies and other devices, such as tariff equalisation, i.e. the application of a single tarif throughout the country. They can also be explained by a rise in production costs.

Secondly, and despite the overall average overcapacity, new investments will soon be needed to maintain security of supply, whether it concerns specific production means to satisfy increasing peak demand, or production capacities or flexible demand response to absorb the growing share of variable energies in the production mix.

The current context, which is unfavourable for investment, is therefore likely to pose a risk to security of supply in the medium term. A possible solution to this paradox may be to put in place a capacity mechanism ›see box oppposite. In addition to the energy market, this mechanism is intended to provide the economic signs to achieve the level of security of supply determined by the public authorities.

CAPACITY MARKET: OBJECTIVES AND OPERATING PRINCIPLES



The establishment of a capacity obligation mechanism in France is based on a dual finding. First, the growth of peak French demand could, in the medium term, make the electrical system a significant risk to its security of supply. Secondly, the state-of-the-art methods, used for a low and very random number of hours of the year during periods of stress on the system, do not have a sufficiently large and stable income to motivate investments in these means, whether they are for production or demand response.

The concept of the security of supply of the electrical system is at the heart of the capacity mechanism. Its underlying principle is that it pays for the available power of production capacities, and not the energy actually generated, which will continue to be valued on the energy markets. Any capacity contributes by its availability to reducing the risk of failure, as it can be mobilised as needed in the event of stress on the system. The capacity mechanism remunerates this assurance for the system. Once certified, the capacities that contribute to security of peak supply will be able to receive remuneration for their "megawatts available", in addition to the income made from the energy markets.

This income, independent of their actual activation for a given year, in particular allows income that is very volatile to stabilise from advanced, cutting-edge capacities and offer economic space for demand response.

The capacity mechanism makes suppliers responsible for medium-term security of supply, and therefore its cost. It introduces their obligation to obtain capacity guarantee certificates for peak consumption of their portfolio of customers. These certificates are acquired by developing your own capacities or by buying them from capacity operators. Suppliers can obtain certificates four years before the year of delivery and balance their positions according to developments to their portfolio and their consumption forecasts. This decentralised and dynamic approach enables a price to be set for the capacity with an important expectation favourable for investment, and in the very short term, until favouring the emergence of the potential to control consumption that can be mobilised in very short periods. The cost of the supply in capacity for suppliers is passed on to end consumers, through regulated sales tariffs and free offers from suppliers, which keeps the retail market competitive.

WIND NETWORKS AT SEA: THE NORTH SEAS ' INITIATIVE

The countries around the north seas are planning to significantly increase both the level of interconnection between each other and the capabilities of offshore production.

In effect, these could reach 38 GW in 2020, a volume that could double or even triple in 2030.
This development will generate a need for offshore transmission infrastructure, to route the energy produced to consumption centres and for cross-border flows. These two needs are currently satisfied by separate infrastructure.
The North Seas Countries Offshore Grid Initiative (NSCOGI) examines the usefulness and the possibility of pooling the response by combining connection and interconnection infrastructure.

In 2013, the initiative opened up to representatives of market players, by organising Focus Groups on specific topics.

The first Focus Group, on the organisation of the market, was held at the CRE on 19 April 2013, with representatives of the International Energy Agency (IEA), the European Federation of Energy Traders (EFET), the European Electric Sector Association Eurelectric, Europex (European Energy Exchanges Association), the European Wind Energy Association (EWEA) and the International Federation of Industrial Energy Consumers in Europe (IFIEC).

IN OCTOBER 2013, THE CRE WORKED OUT THAT THE SUPPORT FOR RENEWABLE ENERGIES WILL REPRESENT
60.2%
OF PUBLIC SERVICE CHARGES FOR 2014,
WHICH IS €3.7 BN

3.3.4. The strategy for developing renewable energies needs to better adapt to the economic and technical constraints of the electricity system

In its report from July 2013 on "The renewable energies development policy", the Court of Auditors assessed the cumulative support for the development of electricity and heat production chains at more than €14 bn between 2005 and 2011. The three the most significant measures, but also the most expensive for consumers and taxpayers, are the contribution to the public electricity service (CSPE), the sustainable development tax credit and VAT at a reduced rate for improvement work in old buildings.

In October 2013, the CRE worked out that the support for renewable energies will represent 60.2% of public service charges for 2014, which is €3.7 bn. Support for the photovoltaic sector (€2.4 bn) is only 39% of the total amount of these expenses. Without amending the regulatory framework, the public service charges for renewable energies over the period 2014-2020 could be more than ten times higher than those for the period 2005-2011. In addition, the massive arrival of renewable energies, such as wind power and photovoltaic solar power, revealed new challenges for the electricity system, due to variations in the production of electricity that they involve, and the priority access to the network that they enjoy.

In fact, the variable nature of part of their production involves the need for increasing flexibility. However, the constraints of operating the production plants are not very flexible (nuclear and coal power plants). More flexible gas-fired power stations are currently penalised because of the particularly low prices of coal and CO_2. This context influences wholesale prices and occasionally may lead to the emergence of negative prices. The proper functioning of the market would require measures to be taken to ensure the security of supply and the economic balance of the system in the face of these uncertainties, in particular through a reform of the subsidies for renewable energies and the increased requirements of expectation and modulation of the production of the plants concerned, such as being responsible for the stability of these producers.

Finally, like the forecasting and supervision of renewable energy systems put in place by the operator of the transmission network, the planning and operation of distribution networks must now evolve to take into account the twofold spatial and temporal issue of photovoltaic generation which is vague and variable.

3 QUESTIONS FOR...

OLIVIER APPERT
CHAIRMAN OF IFP ÉNERGIES NOUVELLES, CHAIRMAN OF THE FRENCH COUNCIL OF ENERGY

"THE COLLAPSE OF THE PRICE OF CO_2 ON THE ETS MARKET DOES NOT ALLOW GAS TO PLAY ITS PART IN THE ENERGY TRANSITION."

2013 was a pivotal year that saw new global energy balances drawn up, with an important role for gas. Can you tell us about it?

The fundamentals of the energy sector remain in place: progression of demand linked to the growth of the population and the standard of living, particularly in emerging countries, strong dependence on fossil fuels and the climate change challenge. However, in the last few years, the world has been faced with a new paradigm created by the revolution of shale gas and shale oil in the United States, the Fukushima accident and Arab revolutions.
These recent events have reinforced the role of gas in the global energy mix: the International Energy Agency even talks about the golden age of gas. Therefore, gas production in the United States has increased by 35% since 2005 and domestic prices have fallen. This country should soon become a LNG exporter. The halt of nuclear power in Japan after the Fukushima accident has increased Japanese gas imports. Chinese consumption increased by 55% between 2010 and 2013. The Arab revolutions have affected production in Libya and Egypt: the climate of insecurity and political instability negatively affect investment in the region, which is a source of future tensions.

Europe seems to be distancing itself from this «golden age» of gas that other regions of the world are experiencing. What are the reasons why and the consequences?

You can even ask the question of whether the golden age of gas has already taken place in Europe. In fact, since its peak in 2008, the demand for natural gas in Europe (EU 28) has fallen by more than 10% . The bulk of this decline (70%) is attributable to the electricity sector whose gas consumption has fallen by 25% over this period. This substantial reduction is explained first by the economic crisis that has severely affected electricity demand. At the same time, the renewable part of electricity generation increased from 15% in 2000 to 24% in 2012 to the detriment of other means of production. Finally, gas has lost its competitiveness in relation to coal. While the price of gas has risen in Europe by 36% since 2009, the price of coal has fallen (-32% these past two years), an indirect impact of the shale gas revolution in the United States.
The collapse of the price of CO_2 on the ETS market does not allow gas to play its part in the energy transition. It is ironic that European utilities have been held back in this context by closing or being mothballed since 2008 50 GW of production capacities from gas including some which are very modern.

How can the gas sector contribute to the energy transition?

In this sense, the Russian-Ukrainian crisis confirms the urgent need for pragmatic improvements of the current energy system. Since the markets exist (electricity, gas, CO_2), it is necessary to ensure that they are functioning normally, i.e. that the price signals are influenced by costs. The reform of the ETS is a very important and urgent issue. Since the major constraint of any energy policy is combating climate change, CO_2 emissions must be the only binding objective. It is necessary to ensure controlled and sustainable development of renewable energies in tune with real needs. More specifically, regarding gas, it is essential to implement any measure to ensure the security of supply (development of flexible supplies and interconnections, etc.). In addition, a European energy policy should allow natural gas to play its full part in the framework of the energy transition in the future.

THE ACTION OF THE REGULATOR

UNDER THE CONTROL OF THE JUDGE

The number of disputes related to the CRE's activity is increasing sharply. They concern decisions taken by the government after an opinion from the CRE, the CRE's decisions in the exercise of its powers and the decisions of the Committee for Settling Disputes and Sanctions (CoRDiS). They are under the jurisdiction of various courts.

DISPUTES ARE RISING SHARPLY, **MAINLY IN CONNECTION WITH MISSIONS THAT DO NOT FALL WITHIN THE REGULATION.**

BETWEEN 2011 AND 2013
CoRDiS ISSUED
225 **DECISIONS***
90 **APPEALS** TO THE **COURT OF APPEAL** OF PARIS
ONLY
1 DECISION **CANCELLED**

* Decisions on the merits, interim measures and decisions of the chairman noting the incompetence of the Committee.

COURT OF APPEAL OF PARIS

ADMINISTRATIVE TRIBUNAL

COUNCIL OF STATE

APPEAL

APPEAL

APPEAL

DISPUTE SETTLEMENT DECISIONS

EXAMPLE
Dispute between a producer of photovoltaic electricity and the network operator concerning the connection conditions of a production facility to the public distribution network

OTHER CRE DECISIONS

EXAMPLE
Decision related to a refund request from the CSPE

Decision related to the rejection of an incomplete application file for a call for tenders

NON-REGULATORY ACTS OF MINISTERS

EXAMPLE
Naming of the winners of the tenders in terms of renewable energies

DECREES OR REGULATORY ACTS OF MINISTERS

EXAMPLE
Fixing of regulated sales tariffs

Fixing of purchase tariffs for renewable energies

DECISIONS OF THE CRE TAKEN AS PART OF ITS REGULATION OR CONTROL TASKS

EXAMPLE
Approval of connection scales for network operators

SANCTION DECISIONS

EXAMPLE
Sanction for the failure by an operator in its task to provide electricity at the social tariff

Sanction for the failure by an operator in terms of integrity or transparency of the wholesale markets in the REMIT framework

GOVERNMENT

OPINION OR PROPOSAL OF THE CRE

CRE

CoRDiS

DISPUTES RELATED TO THE CRE' S ACTIVITY HAVE INCREASED IN RECENT YEARS. THIS DEVELOPMENT IS IN PART INHERENT IN THE PROCESS OF OPENING UP MARKETS.

1. LITIGATION IS ON THE RISE

The development of energy networks in France has been historically marked by a certain contentious activity, which is the importance of economic issues and the sensitivity of tariff issues, particularly in a period of crisis. It gave rise to several major judgements by the Council of State in the first half of the 20th century: On 10 January 1902 Compagnie Nouvelle du gaz de Déville-les-Rouen, regarding the unilateral power to amend administrative contracts. On 30 March 1916 Compagnie générale d'éclairage de Bordeaux, on the disruption of the economy of the concession contract, in relation to the increase in the price of coal which occurred during the war. On 25 June 1948, Société du Journal l'Aurore, on the principles of the non-retroactivity of regulatory acts and equality between public service users, leading to the cancellation of the ministerial decree laying down the sale price of electricity.

Disputes related to the CRE's activity have increased in recent years. This development is in part inherent in the process of opening up markets. It also maintains a certain regulatory instability in the framework of retail tariffs for gas and electricity and the support systems for developing renewable energies. These disputes concern decisions taken by the government after an opinion from the CRE, the CRE's decisions in the exercise of its powers - which have expanded in recent years - and the decisions of the Committee for Settling Disputes and Sanctions (CoRDiS).

As well, the action the CRE exercises in an ever-increasing way under the control of the judge. This control has had the effect, on the one hand, of clarifying or confirming the procedures for drawing up CoRDiS decisions and those of the board, and on the other hand, a legal framework for exercising certain powers of the CRE, in particular on tariff matters.

Appeals related to the CRE's activity fall under the jurisdiction of various courts, depending on the areas concerned: the Council of State, the administrative courts and the Court of Appeal of Paris (see 1.1). Disputes are increasing fast, mainly in relation to missions, which do not fall under regulation: requests for reimbursement of the contribution to the public electricity service (CSPE) and appeals by applicants to calls for tenders to develop renewable energies. Appeals against the decisions of the CRE itself should moreover be distinguished from those against the decisions taken after an opinion or proposal of the CRE (see 1.2). The activity of CoRDiS has been affected by the photovoltaic moratorium of 2010 (see 1.3).

1.1. THE DIVERSITY OF JUDGES COMPETENT TO HANDLE DISPUTES RELATED TO THE ACTIVITY OF THE CRE

1.1.1. Appeals against the decisions of the CRE: a contentious split between administrative courts and judicial courts

The CRE is part of the independent administrative authorities - such as the Competition Authority, the Regulatory Authority of Electronic Communications and Posts (ARCEP) and the Financial Markets Authority (AMF) - whose litigation is shared between administrative courts and tribunals.

The **Council of State** is competent to judge appeals lodged against the decisions taken by the CRE in the first instance as part of its control or regulation tasks - according to Article R. 311-1 of the [French] Administrative Justice Code, which fixes the same jurisdiction rule for eleven other independent administrative authorities, including the Competition Authority, ARCEP, CNIL and the AMF. The Council of State is also competent to hear appeals against the sanction decisions of CoRDiS[1].

The **administrative courts** have been competent for judging appeals against the decisions of the CRE, which do not fall within its control or regulation tasks since 2010[2]. The Council of State made a first application of this rule of jurisdiction in 2012, by judging that the appeal by which a contributor can request the reimbursement of a portion of the CSPE and the payment of default interest could not be regarded as directed against a decision taken by the "*bodies of the Commission under the control or regulation tasks entrusted to this authority*"[3]. The High Court has accordingly referred the judgement of the case in question to the administrative tribunal of Paris[4]. In 2013, the Council of State extended the application of these provisions to the decisions by which the CRE believes that an application file to a call for tenders in the area of renewable energies will not be processed, if it fails to be complete[5]. The vast majority of appeals against the decisions of the CRE indicate these two exceptions, and it has therefore been transferred from the jurisdiction of the Council of State to that of the administrative courts. **Disputes before the administrative courts reflect the increasing part taken up in the CRE's activity by missions not falling under control or regulation to the detriment of its primary missions, in a context of strong budgetary constraint.**

Finally, the **Court of Appeal of Paris** is competent to hear appeals against the decisions and precautionary measures taken by CoRDiS in the settlement of disputes[6].

The Council of State is competent to judge the appeal against decisions taken by the CRE as part of its control or regulation tasks as well as appeals against sanction decisions of the CoRDiS.
© Conseil d'État

THE ORGANISATION OF THE JUDICIARY IN FRANCE

In France, the organisation of the judiciary, i.e. the organisation of the courts, is characterised by the separation between, on the one hand, the judicial order and, on the other hand, the administrative order.

In principle, the judicial court is competent for adjudicating civil and trade disputes and judging criminal offences. The administrative court is competent for annulling or altering decisions, whether they are individual or general in scope, taken by the public authorities in the exercise of powers coming under public power.

Within these orders of jurisdiction, the courts and tribunals are arranged in a pyramid structure, with the courts of first instance, appeal and a court of cassation for each order, responsible for checking and harmonising the application of the law as it is implemented by the other judges (who are called «juges du fond» (judges deciding on the merits of the case)). This is the Court of Cassation for the judicial order and the Council of State for the administrative order. The Council of State is also the first and last instance of appeal against decrees, the regulatory acts of ministers, and decisions taken by independent administrative authorities in the exercise of their powers of control or regulation.

1 – Article L. 134-34 of the [French] Energy Code.
2 – This competence is the result of decree No. 2010-164 of 22 February 2010 relating to the competences and the operation of the administrative courts. Previously, paragraph 4 of article R. 311-1 of the [French] Administrative Justice Code gave general competence to the Council of State to hear in the first and last instance "*appeals against the administrative decisions of collegiate bodies of national competence*", without exception.
3 – Council of State, 5 March 2012, Company Ciments Calcia, No. 346410.
4 – In application of article 312-1 of the [French] Administrative Justice Code, which stipulates that: "*When it is not otherwise provided by the provisions of section 2 of this chapter or by a special text, the administrative court with territorial jurisdiction is the one in the appeal in which it is legally based, the authority which, either by virtue of its own power, or by delegation, made the contested decision or signed the disputed contract*".
5 – Council of State, 10 June 2013, Company Bigben Interactive, No. 366082.
6 – Articles L. 134-24 of the [French] Energy Code and L. 229-51 of the [French] Environment Code.

Appeals against the decisions of the CRE		2007	2008	2009	2010	2011	2012	2013
Council of State	Registered	2	60	9	3	12	15	2
	Withdrawals	0	1	9	12	0	5	1
	Discharges	2	5	2	0	29	10	3
	Cancellations	1	0	3	0	6	1	0
	Referrals to the administrative tribunal	0	0	1	1	1	8	4
Administrative tribunal	Registered (excluding referrals)	0	0	0	0	0	44	36
	Discharges			0	0	0	0	1
	Cancellations	0	0	0	0	0	0	3

Appeals against decisions taken on opinion or proposal of the CRE	2007	2008	2009	2010	2011	2012	2013
Registered	0	3	5	9	6	11	8
Withdrawals	0	0	0	3	1	0	2
Discharges	2	1	0	2	1	1	6
Suspensions					1	1	
Cancellations	1	1	0	1	3	4	9

APPEALS AGAINST THE DECISION OF THE CRE ITSELF SHOULD BE DISTINGUISHED FROM THOSE AGAINST THE DECISIONS TAKEN AFTER AN OPINION OR PROPOSAL OF THE CRE.

1.1.2. Appeals against decisions taken after an opinion or proposal of the CRE

The contentious activity also concerns the decisions taken by the ministers or by decree after an opinion or proposal of the CRE.
This litigation is referred to the **Council of State** in first and last instance when it concerns decrees or regulatory acts of ministers, such as the ministerial decrees relating to regulated tariffs for the sale of gas or electricity or purchase tariffs for renewable energies.

The **administrative courts** are competent to hear appeals against ministerial decisions not of a regulatory nature, such as the naming of winners of tenders in terms of renewable energies.

1.2. APPEALS TO THE ADMINISTRATIVE COURTS ARE RISING SHARPLY

1.2.1. Appeals before the administrative courts against the decisions of the CRE: sharp increase linked to missions which do not fall under regulation

The decisions of the CRE give rise to significant litigation. More than 100 appeals were referred before the Council of State between 2007 and 2013, and 80 in the administrative courts since the latter have jurisdiction to hear certain decisions of the CRE.

The number of appeals varies greatly, from a few units in 2007, 2009 and 2010, to several dozens in 2008 and in 2013. This range is related to the effect of a series of appeals, on subjects which do not usually fall within the regulatory tasks of the CRE: requests for a CSPE refund (more than fifty appeals in 2008[7], 31 in 2013 and 93 in the first quarter 2014) and appeals by applicants for photovoltaic calls for tenders whose bid documents were rejected as incomplete by the CRE (twelve appeals in 2012).

This growth of litigation is linked to a lesser extent to the regulatory tasks of the CRE. It concerns a few areas in which the market players have very contrasting positions - such as connection scales and demand response.

The number of cancellations of decisions of the CRE pronounced, as a result of these procedures is low: 11 since 2007, approximately 10% of the appeals. Among these, there are five cancellations for approval decisions of connection scales of network operators, which are the result of the illegality of the ministerial decree having given the CRE the power to approve these scales and three judgements of the administrative tribunal of Paris[8] quashing the decisions of the CRE rejecting incomplete applications in the framework of the call for tenders for photovoltaic installations exceeding 250 kWp.

1.2.2. Appeals against decisions taken after an opinion or on a proposal of the CRE: a development linked to ministerial decrees on regulated sales tariffs

The appeal to the Council of State against decisions taken after an opinion or on a proposal of the CRE have risen since 2011, by a large share in relation to the regulated tariffs for the sale of gas - which gave rise to two interim suspension orders and seven cancellations.

The freezing and capping of regulated tariffs for the sale of gas have led to the suspension and cancellation of the ministerial decrees of 29 September 2011[9] and 26 September 2012[10], and then to the cancellation of the decrees of 27 June 2011 and 18 July 2012[11] - all of which had given rise to unfavourable opinions of the CRE. The maintaining of a differentiation between residential and business tariffs, which had been criticised by the CRE, has been the cause of the partial cancellation of the decrees of 22 December 2011 and of 21 December 2012[12], as well as the cancellation of the decrees of 15 April 2013, which retroactively set the tariffs for the third and fourth quarters of 2012 at the end of the previous cancellations[13].

Lastly, the CRE does not systematically receive communication of appeals submitted to the administrative courts against ministerial decisions naming the winners of the calls for tenders in the area of renewable energy. It was therefore not an accurate measure of the development of this dispute.

1.2.3. CoRDiS and appeals against its decisions: a peak of activity related to the photovoltaic moratorium

These are also a series of disputes, which have led to a sharp increase in the number of referrals to CoRDiS. The Committee in fact dealt with an explosion in the number of referrals in 2011, linked to the moratorium on the benefit of the purchase obligation for photovoltaic installations.
CoRDiS issued 225 decisions[14] between 2011 and 2013. Since 2011, 90 appeals against these decisions have been presented against its decisions to the Court of Appeal of Paris, which, except in one case, only pronounced rejection decisions.

2. PROCEDURES AND SUBSTANTIVE RULES SUPERVISED BY JUDGES

The control of the judge oversees the work of the CRE, both from a procedural and substantive point of view.

2.1. CORDIS AND THE BOARD OF THE CRE: COMPETENCES AND PROCEDURE

2.1.1. Procedures before CoRDiS

The creation of CoRDiS in 2007 responded to the need to separate functions, on the one hand of investigation and prosecution, and on the other hand of sanctioning, within the CRE. Following a decision of the Constitutional Council of 2 December 2011 (No. 2011-200 QPC, Banque Populaire

7 – In 2008, there are also: 10 appeals concerning decisions of the CRE approving connection scales of network operators. These decisions fall within the regulatory tasks of the CRE.
8 – Administrative Tribunal of Paris, 26 November 2013.

9 – Order of the judge in chambers of 28 November 2011, ANODE, No. 353554; decision of 10 July 2012, GDF SUEZ, No. 353356.
10 – Order of the judge in chambers of 29 November 2012, ANODE, No. 363572; decision of 30 January 2013, ANODE, No. 363571.
11 – EC, 30 January 2013, ANODE, No. 352206; EC, 30 January 2013, GDF SUEZ, No. 362165.
12 – EC, 02 October 2013, ANODE, No. 357037; EC, 30 December 2013, ANODE, No. 366496.
13 – EC, 30 December 2013, ANODE, No. 369574.
14 – Decisions on the merits, interim measures and decisions of the chairman noting the incompetence of the Committee.

CoRDiS decisions	2009	2010	2011	2012	2013	Total
Referrals	15	13	261	33	16	338
CoRDiS decisions (merits and interim measures)	7	10	39	120	59	235
Withdrawals	1	0	1	66	4	72
Decision of the chairman of CoRDiS noting the committee's incompetence	5	2	3	1	3	14

Appeals against CoRDiS decisions		2009	2010	2011	2012	2013
Court of Appeal	Appeal	1	2	20	57	35
	Withdrawals	0	0	3	2	20
	Inadmissibility	0	0	0	3	3
	Rejection	2	4	6	9	22
	Cancellation	0	0	0	0	1
Court of Cassation	Appeal	0	0	1	1	4
	Withdrawals	0	0	0	0	0
	Rejection	0	0	0	0	0
	Cassation	0	0	0	1	0

THE [FRENCH] ENERGY CODE NOW STATES THAT THE MEMBER OF CoRDIS WHO DELIVERED A FORMAL NOTICE IN A CASE SHOULD NOT TAKE PART IN THE DELIBERATIONS ON THE SANCTION DECISION.

Côte-d'Azur), the procedures of this separation have been specified by the law of 15 April 2013: article L. 133-1 of the [French] Energy Code now states that the member of CoRDiS who delivered a formal notice in a case should not take part in the deliberations on the sanction decision.

CoRDiS does not have jurisdiction to rule on the legality of a decree, except for manifest illegality. Thus, following the publication of the decree of 9 December 2010 suspending the conclusion of new contracts for the purchase of photovoltaic energy for three months, CoRDiS dealt with 230 requests, it suspended their instruction while waiting for the Council of State to decide on the appeal, which was lodged against this decree.

The Committee is, on the other hand, competent to pronounce on the relevance of the connection procedure enacted by ERDF, and has dismissed it in disputes where it was inappropriate (CoRDiS, 19 November 2010, Léonard Valentini, confirmed by CA Paris, 3 November 2011, No. 2011/0900).

In addition, if it is competent to find non-compliance with the obligation of the network operator to submit a technical and financial proposal within a period of three months from the receipt of a complete connection request (CoRDiS, 26 September 2011, GAEC of Saint-Doué), it is not a contract judge, and it is not up to the Committee to decide on the existence of a fault and a prejudice entitling compensation (CoRDiS, 21 January 2011, Macouria).

CoRDiS has also been called upon to pronounce on the status of the work of the consultation bodies put in place by the CRE, in considering that the procedure developed in these forums "*constitutes a use commonly accepted by the profession, which is not lacking regulatory value, as such*". Accordingly, CoRDiS and the courts could be based on these usages (CoRDiS, 26 September 2007, Poweo c/GRDF).

2.1.2. The board of the CRE: jurisdiction and procedure

The administrative judge has clarified the scope of the competencies of the board of the CRE. Therefore, with regard to the work of the CRE to allow the development of residential demand response in the framework of the balancing mechanism managed by RTE, the Council of State considered that the CRE had jurisdiction to decide on an experiment on the matter and make recommendations regarding the procedures of this experiment. It was stated, however, on the one hand that these recommendations, taking into account their imperative nature, were subject to appeal, and on the other hand, the CRE could not decide,

CoRDiS has been recognised as competent to decide on the relevance of the connection procedure enacted by ERDF.
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in the absence of a legal basis permitting it, that the economic appraisal of a tender may concern its indirect effects on the community as a whole. As a result, it cancelled the resolution of the CRE on this point (EC, 3 May 2011, Voltalis, No. 331858). The law of 15 April 2013 has since then clarified the legal regime for demand response.

The Council of State has also cancelled several of the CRE's resolutions approving the connection operation scales billed by operators of distribution networks. It found that the ministerial decree, which had entrusted this competence to the CRE, ignored the scope of the delegation granted by the legislator with regulatory power. The law actually provides that the general principles for determining the contribution due to the network operator managing the connection works be jointly adopted by the Economy and Energy ministers, without allowing the ministers to allocate the prerogative to approve these scales to the CRE (EC, 23 December 2011, French Federation of Electrician Installers, No. 316596).

The Council of State additionally verifies compliance with the rules of procedure by the board or by the authorities that consult it. It therefore ruled, with regard to the CRE, that when the legislative or regulatory provisions provide for the consultation of a body before the intervention of a decision, this body must be placed in a position to express its opinion on all of the issues raised by this decision. The judge checks, on a case-by-case basis, if the time allocated to this body has been sufficient to enable it to issue its opinion (EC, 15 February 2012, SIPPEREC, No. 332640). The Council of State made a pragmatic assessment of the conditions in which the board of the CRE has to pronounce, usually in very tight deadlines. Thus, in a case where the CRE had only had a few days to issue its opinion on the decree concerning regulated tariffs for the sale of gas by 1 January 2012, the judge noted that it had been able, in this period, to hear the stakeholders and check the adequacy between the new formula and the change to the costs to be incurred by the company GDF SUEZ, with sufficient information, particularly from the report on the supply costs of the company GDF SUEZ that it submitted to the government on 28 September 2011 (EC, 2 Oct. 2013, ANODE, No. 357037). With regard to the decree laying down the regulated tariffs for the sale of gas on 1 January 2013, the Council of State noted that, even if "*the CRE has not been able to examine the contracts or draft contracts resulting from recent renegotiations or currently being undertaken by GDF SUEZ, this company has however provided the indications on the expected impacts of changes in the indexation clauses on the contracts concerned*". The Council of State therefore considered that "*the CRE had sufficient information to issue its opinion, that it has, in fact, released under the reserve of the announcement of an audit conducted, in the first quarter of 2013, based on contracts concluded*" (EC, 30 December 2013, ANODE, No. 366496).

THE COUNCIL OF STATE MADE A PRAGMATIC ASSESSMENT OF THE CONDITIONS IN WHICH THE BOARD OF THE CRE HAS TO PRONOUNCE, USUALLY IN VERY TIGHT DEADLINES.

In disputes over TURPE 3, the Council of State has been led for the first time to make use of the appeal procedure to a consultant.
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THE COUNCIL OF STATE'S CASE LAW HAS HELPED TO DEFINE THE FRAMEWORK OF ANALYSIS USED BY THE CRE TO DEVELOP ITS OPINION ON THE REGULATED TARIFFS

The Council of State also decides on the conditions under which the CRE conducts consultations. It also considered that, in the case of TURPE 3 that the CRE, which had conducted two rounds of public consultations in 2008, focusing on the proposed pricing principles and then on the planned tariff developments, on the basis of papers setting out in a sufficiently precise manner the developments envisaged, had been able to formulate a new proposal after the rejection of the first one by ministers without making a new open consultation to all electricity market stakeholders. The Council of State considered that the CRE was able to formulate its proposal with knowledge of the impact that the market players could expect, and to transmit to the Economy and Energy ministers the elements enabling assessment - without being required to carry out a new consultation, nor to respond to the request for some operators to convene a working group on the need to take account of the provisions for renewal, or to make use of the powers to require some operators to produce additional elements. It also controls the sufficient nature of the reasons for the proposal of the CRE (EC, 28 March 2012, Direct Energie, No. 330548).

2.2. THE JUDGE'S MEANS OF CONTROL

The complexity of the issues in play in the litigation relating to the decisions taken by the CRE, or on a proposal or after an opinion of the CRE, have led the administrative judge to resort to innovative ways to exercise control.

The Council of State has thus sought the advice of the Council on Competition on the coverage by the regulated tariffs for the sale of gas of the average total costs of distributors, prior to making a decision on the appeal against these tariffs, under the authority of the previous regime to that of the tariff formula established by the decree of 18 December 2009 (EC, 7 July 2006 and 10 December 2007, Poweo, No. 289012). Therefore, in the Voltalis case, relating to residential demand response, the Council of State has made use of its powers of investigation conducting a "*summons investigation*", and heard the counsel of the parties during an instruction meeting.

In the dispute on TURPE 3, the Council of State was led for the first time to make use of the appeal proceedings to a consultant provided for by article R. 625-2 of the [French] Administrative Justice Code[15]. The applicants maintained that the weighted average cost of capital (WACC) retained by the CRE was clearly overvalued, when it had been calculated as if all the assets had been financed by equity capital or by debt, whereas they have largely been funded by "*non-financial liabilities*" with the company ERDF not bearing any financial burden, and the provisions for renewing works granted constituted up until 31 December 2005 having been fully covered by the previous tariffs, the taking into account, for the determination of the regulated assets base (RAB), of assets financed by these provisions resulted in a double illegal remuneration. The reaction to this depended on the question of knowing, on the one hand, how you assess the WACC when the assets of a company include goods owned by the licensor and have as a counterpart, to its liabilities, not only equity capital and debt, but also specific accounts for concessions, and, on the other hand, what are the restatements to apply in the event switching from a capital charges accounting approach to an economic approach, based on the WACC. It felt that it was a technical issue on which it needed to seek the advice of a consultant (EC, 28 March 2012 and 23 May 2012, Direct Energie, No. 330548).

15 – "*When a technical question does not require complex investigations, the formation of a judgement can be made by the person that it commits to provide it with advice on the points that it determines. The consultant, to whom the record of the proceeding is not handed over, should proceed by following a contradictory procedure in respect of the parties. The opinion shall be recorded in writing. It is communicated to the parties by the court.*"

2.3. A REINFORCED FRAMEWORK OF REGULATED TARIFFS AND TARIFFS FOR THE USE OF NETWORKS

The decisions of the Council of State on the regulated sales tariffs and tariffs for the use of networks illustrate the importance and the extension of the control of the judge with regard to energy regulation. Although it is a restricted control, i.e. a control limited to the error of law and to the manifest error of assessment, it strictly oversees tariff decisions, both as regards the calculation methods and checking of the coverage of costs, segmentation and the treatment of different categories of users.

2.3.1. Regulated sales tariffs

The Council of State has frequently dealt with appeals against ministerial decrees laying down the regulated tariffs for the sale of electricity and gas, submitted after an opinion of the CRE. Its case law has helped to define the framework of analysis used by the CRE to develop its opinion on these tariffs. In a reciprocal manner, the Council of State relies on the opinions of the CRE to decide on the legality of tariff decrees. The case law of the Council of State is constructed with changes to the legislative and regulatory framework.

A three-stage dynamic analysis of the coverage of costs

For the regulated tariffs for the sale of natural gas, in a legislative and regulatory framework, which was initially limited to laying down the general rule on the operator's cost coverage, the Council of State has adopted a three-stage dynamic reasoning to pronounce on the observance of this rule. It found that the competent ministers must, on the date on which they make their decision:
1. Allow at least the coverage of average and full costs of operators such that they can be assessed on this date;
2. Take into account an estimate of the changes to these costs over the coming year;
3. Adjust these tariffs if they find that a significant difference occurs between tariffs and costs, due to the fact of an under-evaluation of tariffs, at least during the past year, in order to compensate for this difference in a reasonable time.

The judge had a flexible interpretation of the way that ministers could pass on these developments. They could "*legally take account of the general economic situation, and more particularly that of households, to regulate the evolution of the sale price of public distribution gas, without being obliged to fully pass on, at the tariffs they set, the variations, upward or downward, to the full average costs of gas supply distributed in this way*" (EC, 10 December 2007, Poweo, No. 289012). This approach has been transposed into the regulated tariffs for the sale of electricity (EC, 1 July 2010, Poweo, No. 321795).

Natural gas: checking compliance with the tariff formula

The Council of State has adapted this framework of analysis to the system of fixing regulated tariffs for the sale of natural gas of the decree of 18 December 2009, which fixes the costs that must be covered much more accurately than the previous system, by going back to fixing them using a mathematical tariff formula, fixed by an order of the Energy and Economy ministers. The Council of State considered that, to fix the first of the three terms of the tariff analysis (the coverage of the full average costs on the date of the decision), the ministers had no other choice than to apply the tariff formula introduced by the decree. The amount thus obtained could always be adjusted according to 2) the estimate of the changes to costs over the coming year and 3) the closing of the gap between tariffs and cost over the past year. This closing of the gap is no longer limited to unfavourable differences for the supplier, but also for those, which are unfavourable for the customer. The right to regulate according to the general economic situation disappears. The Council of State said that in the cases where the tariff formula no longer correctly reflects the

THE ADMINISTRATIVE JUDGE MAY ISSUE AN INJUNCTION TO RESTORE A TARIFF CONSISTENT WITH THE COST COVERAGE OBLIGATION WITHIN A DEADLINE THAT THE JUDGE FIXES.

The Court of Appeal is competent to hear appeals against decisions and precautionary measures taken by CoRDiS in the settlement of disputes.
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THE CRE HAS DEVELOPED A NEW METHODOLOGY FOR DETERMINING THE REMUNERATION OF ERDF' S CAPITAL IN ORDER TO FULLY TAKE INTO ACCOUNT THESE SPECIFIC FEATURES OF THE SYSTEM OF DISTRIBUTION CONCESSIONS FOR ELECTRICITY.

Tariff differentiation check

The legislative provisions applicable to tariffs provide that they can be differentiated in terms of "*intrinsic characteristics of the supply*", assessed by category in the case of electricity, and comprehensively for natural gas. The Council of State has pronounced on the relevance of the distinctions made based on these provisions:
– It has cancelled the regulated tariffs for the sale of electricity on the grounds that (i) for the blue tariffs, the distinctions made between "domestic customers", "collective domestic customers and farms", "business customers and non-municipal public services", "municipal and inter-municipal public services", as well as for public lighting and various provisions, were not a result of the impact of the site of consumption on the sizing of the network infrastructure or the network to which the site is connected, nor the various electricity consumption characteristics, (ii) for the green and yellow tariffs, that the regulatory power had no fixed criterion to justify segmentation between these tariffs and, within them, between the different tariff options (EC, 22 October 2012, SIPPEREC);
– With regard to natural gas, the Council of State has cancelled three tariff decrees as they operated a differentiation between residential and business customers without being related to the purpose of the tariff (EC, 2 October and 30 December 2013, ANODE).

Electricity: a double check of the coverage of costs and contestability

The framework of analysis of the Council of State has also evolved with regard to electricity, to take account of the provisions resulting from the NOME law of 7 December 2010 aimed at organising, over a transitional period of 5 years, the resorption of the historical gap (or "scissor effect") between the level of regulated sales tariffs and the cost of electricity distributed at a market rate. Accordingly, the Council of State, in addition to its three-stage analysis of the coverage of costs, verifies that the increase is not manifestly insufficient to ensure a certain tariff convergence with the market price, even if this difference is not instantly reabsorbed. This double-check is performed for each tariff colour (EC, 24 April 2013, Poweo, No. 352242). In all its recent decisions on regulated sales tariffs, the Council of State has relied on the opinion of the CRE to assess the coverage of costs and, in the case of electricity, the tariff convergence.

The effects on decision times of the Council of State

The decisions of the Council of State may in some cases take place quite quickly after contested tariff decrees: two months in the case of requests for an interim suspension, and no sooner than four months for a decision to cancel. The judge considers that "*a sustainable freezing of the regulated rates of GDF SUEZ is of such a nature as to create a "price squeeze" phenomenon according to which the full costs of these operators would be higher than the regulated tariffs of GDF SUEZ, affecting their margins and compromising their presence on the gas distribution market as well as the public objective of opening this market up to competition*". Consequently, the condition of urgency was satisfied and justified, since there was a serious doubt on the legality of the tariff, the suspension of the latter (judge in chambers of the Council of State, 28 November 2011, ANODE).

This rapid response capability allows the judge to effectively contribute to the preservation and development of competition in the energy markets.

The administrative judge may issue an injunction to restore a tariff consistent with the cost coverage obligation within a deadline that the judge fixes. This injunction applies to the future when it is pronounced in interim measures and suspends the contested decree, or retroactively when it pronounces the cancellation of the contested decree (for the period of application of the contested decree). The cancellations of regulated sales tariffs have therefore given rise to many retroactive billing adjustments. The Council of State has not implemented, in these decisions, case law, which allows it to regulate in time the effects of the cancellation of the decision when the latter could have clearly excessive consequences (EC, 11 May 2006, AC).

2.3.2. Tariffs for the use of networks

The Council of State also oversees fairly strictly the fixing of tariffs for the use of networks, which since 2011 has come under the competence of the CRE.

Checking the absence of tariff discrimination

The administrative judge shall ensure the observance of the principle of non-discrimination in the distribution of costs between user categories. The Council of State has ruled that the legislative and regulatory provisions applicable to the subject, which transposed the requirements of Directive 2003/54 of 26 June 2004, were obstacles to a tariff regime containing provisions which, reserving the same treatment for all electricity network user consumers, would lead to some of these consumers having to bear, due to the clear particularities of their electricity consumption, a manifestly higher cost than the costs borne by other consumers, as long as this effect cannot be avoided in the interest of the general balance of the system and is not disproportionate to the objective pursued. There is reason to assess whether a user of the network suffers discrimination, by taking account of the specific costs that may result, for the operator of this network, from the characteristics of use of the network by this user (EC, 18 July 2008, SNCF, No. 291602).

Check of the methodology chosen by the CRE

In addition, at the end of more than three years of procedure, the Council of State cancelled the third tariffs for the use of public electricity networks on 28 November 2012, called TURPE 3, as regards

The Council of State clarified that if the CRE noted that a significant difference had occurred or was likely to occur between the operator's authorised revenue and its overall costs, it was responsible, ex officio or at the request of the network operator concerned, to change the level and structure of the tariffs.
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distribution. The Council of State considered that the methodology chosen by the CRE to determine the remuneration of ERDF's capital was legally erroneous, because it did not take account of the specific characteristics of the accounting of distribution concessions for electricity. In its decision, the Council of State considered that "*by refraining [, etc.], to determine the weighted average cost of capital, from taking "specific concession accounts" into consideration, which correspond to the rights of licensors to freely recover the concession assets at the end of the contract, the amount of which, on the liabilities side of the balance sheet of the company ERDF, was €26.3 billion at 31 December 2008, as well as the "provisions for the renewal of capital assets", the amount of which was of €10.6 billion, the CRE and the ministers selected, this also follows from the consultant's report of 13 July 2012, a legally erroneous method and thus ignored the above-mentioned provisions of the first paragraph of II of article 4 of the law of 10 February 2000 and article 2 of the decree of 26 April 2001*". The Council of State considered that the absence of any taking into account, for the calculation of the weighted average cost of ERDF's capital, specific concession accounts and provisions for renewal, constituted a legal error.

As a result of this decision, the CRE has developed a new methodology for determining the remuneration of ERDF's capital in order to fully take into account these specific features of the system of distribution concessions for electricity › see file p.60.

Check of the coverage of costs

In its decision of 7 November 2013 dismissing the appeal of the company TIGF against the CRE's resolution of 22 November 2011 on the updating of tariffs for the use of natural gas transmission networks, the Council of State clarified its case law on network tariffs.

It first considered that the coverage of the operating and investment expenses of the network operator should be assessed globally, and not item-by-item. In addition, the regulator may take into account "*the expected productivity gains of an efficient network operator*" and only cover the costs up to this limit.

Finally, the Council of State clarified that if the CRE noted that a significant difference had occurred or was likely to occur between authorised revenue and its overall costs, it was responsible, ex officio or at the request of the network operator concerned, to change the level and structure of the tariffs. In particular, it considered that the fact that some expense items should be the subject of an automatic adjustment through the adjustment account of expenses and revenue did not allow the regulator to release of this obligation.

"MANY MATTERS WILL ARISE OVER THE ORGANISATION OF THE DECLINE OF THE NUCLEAR INDUSTRY, ENCOURAGING THE DEVELOPMENT OF RENEWABLE ENERGIES OR EVEN THE SEARCH FOR ENERGY MANAGEMENT."

3 QUESTIONS FOR ...

PHILIPPE MARTIN,
CHAIRMAN OF THE PUBLIC WORKS SECTION OF THE COUNCIL OF STATE

The Council of State, as an administrative judge, has an increasingly important place in the field of energy. How do you explain that?

The administrative judge is seeing an increase in litigation power relating to energy. There is some unpredictability over the development of disputes in one area or another. I think, however, that, as regards energy, this is linked to the transitional state the current liberalisation of the markets is in. Competition develops, but strong public regulation is maintained at the same time. The gap between European Union objectives and national regulations creates tension. New entrants can appeal to the competent judge to try to increase the progression toward the end goal and protect their economic interests. Besides, the political authority needs to be flexible in relation to economic factors.
For example, in the first Poweo judgments in 2006 and in 2007, the Council of State had recognised a certain margin to the State to establish natural gas sales tariffs by considering the general economic situation.
The logic evolved with the decree of 18 December 2009, which insisted on the indexation of tariffs to a tariff formula. This decree therefore reduced the public authority's flexibility. However, the temptation for government to regulate prices has persisted, which has increased litigation. Anyway, it seems to me that the number of disputes will continue to rise with the increasing intervention of the sectoral regulator.

What major trends can be seen in the recent changes to the case law of the Council of State on energy?

From the beginning, we considered both competition law and regulations. Disputes over the regulated tariffs for the sale of natural gas were the first.
In the Poweo judgments, the concept of average full cost coverage has been interpreted according to competition law. The objective being that regulated tariffs are not predatory prices.
Applicants would like us to adopt a pure logic of indexing tariffs to the changes to the incumbent supplier's cost. It seems to me that the decree of 2009 and its amendment in 2013 have drawn closer to the tariff logic from an indexing perspective. Case law has therefore been constructed according to competition logic between the incumbent supplier and new entrants. The debate will now focus more on the implementation of this last decree.
Another change to the practice of the Council of State in energy is also the desire to check the economic rationale behind the decisions. For example, concerning tariffs, decisions of the Council of State have considered the three temporal dimensions: the coverage of current costs, the projected costs and the offsetting of past costs.
In disputes concerning TURPE, we had to take into account the particular economic model of the concession.
We also went a long way to understanding the logic of the tariff categories of the incumbent operator. Feed-in tariffs have also given rise to many disputes.

How do you see the future of energy-related issues at the Council of State?

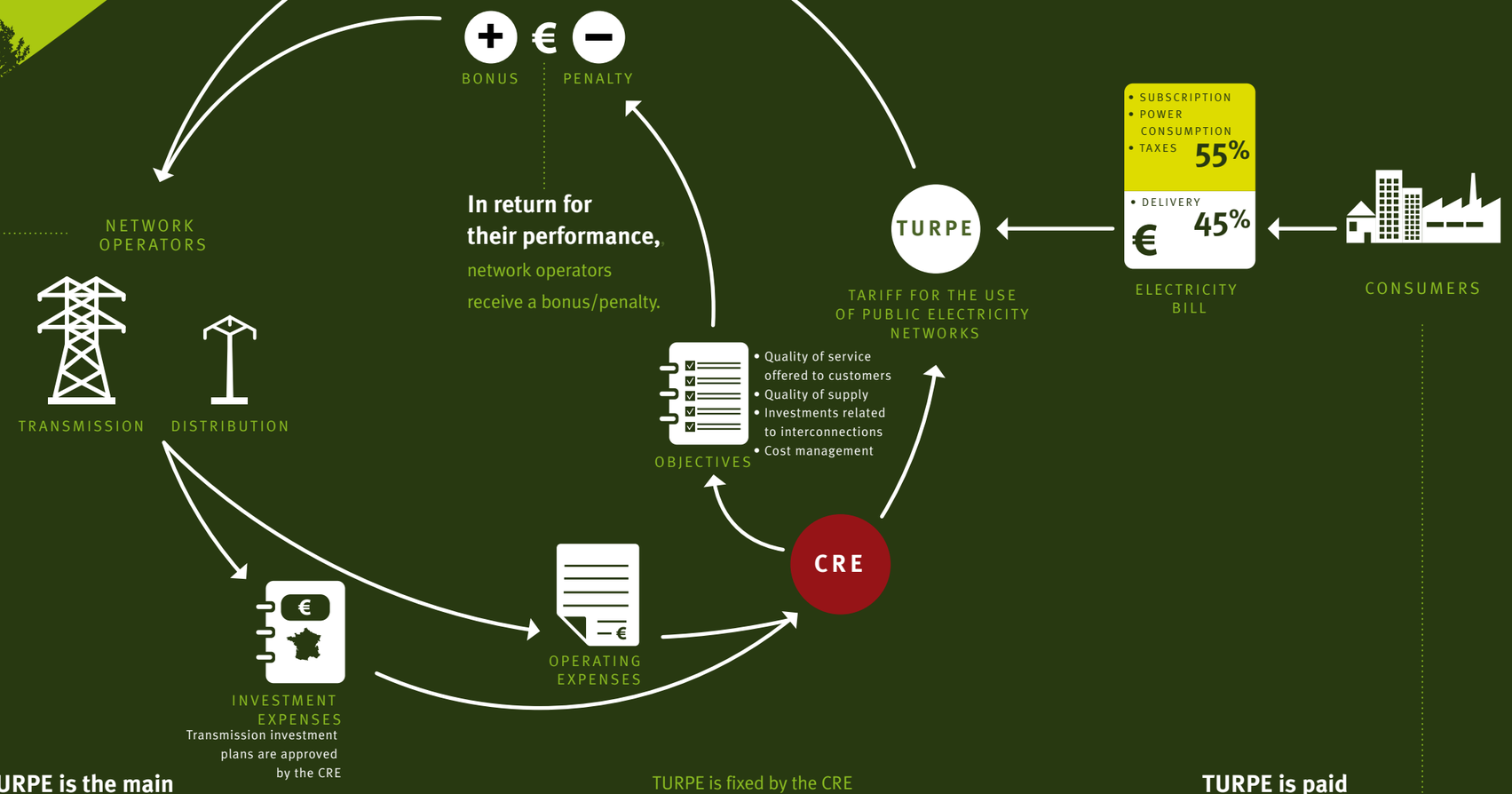
I believe that the right to energy will develop in two ways: that of the development of competition and regulation on the one hand, and that of energy transition on the other hand.
The implementation of energy transition is not yet completely defined. We are only just beginning and the rules will become more complicated.
Many matters will arise over the organisation of the decline of the nuclear industry, encouraging the development of renewable energies or even the search for energy management.

THE TARIFFS FOR THE USE **OF PUBLIC ELECTRICITY** NETWORKS

In 2013, after 5 public consultations and numerous hearings of the stakeholders concerned, **the CRE fixed TURPE 4**

+2,4%
FOR TRANSMISSION ON 1 AUGUST 2013

+3,6%
FOR DISTRIBUTION ON 1 JANUARY 2014



TURPE is the main source of income for electricity network operators.

TURPE is fixed by the CRE **to cover operating costs and investment costs** for network operators.

TURPE is paid by consumers, mostly through their electricity bills of which it represents 45%.

Network operators expenses to fix the price

RTE - In current €m	2013	2014	2015	2016
Capital expenses	1,568	1,646	1,727	1,824
Net operating expenses	2,753	2,756	2,778	2,866
Annual fee for adjustment account for expenses and revenue	-82	-82	-82	-82
Clearance of account adjusted for funding interconnections	-54	-54	-54	-54
Net expenses to fix the price	**4,185**	**4,266**	**4,369**	**4,555**

ERDF - In current €m	2014	2015	2016	2017
Capital expenses	3,698	3,879	4,052	4,240
Net operating expenses (excluding access to the public transmission network)	5,607	5,738	5,850	6,020
Access to the public transmission network	3,438	3,529	3,636	3,646
Annual fee for the incentives balance	-6	-6	-6	-6
Net expenses to fix the price	**12,736**	**13,140**	**13,531**	**13,900**

Revenue from TURPE allows network operators to cover the costs that they are responsible for to operate networks (maintenance, meter reading, breakdowns etc.) and cover the capital charges (depreciation and remuneration) related to investments in the networks.

THE DIFFERENT VOLTAGE DOMAINS

FOR CONNECTION
TO PUBLIC DELIVERY NETWORKS

Low voltage domain	
< 1 kV	**LV**
High voltage domains	
HVA domain	
1 kV < 40 kV	**HVA 1**
40 kV < 50 kV	**HVA 2**
HVB domain	
50 kV < 130 kV	**HVB 1**
130 kV < 350 kV	**HVB 2**
350 kV < 500 kV	**HVB 3**

1. ALL ELECTRICITY DELIVERY TARIFFS WERE REVISED IN 2013

The CRE exercised its new competence over the pricing of electricity networks for the first time in 2013. In fact, since the entry into force on 1 June 2011 of the [French] Energy Code, the CRE is responsible for setting the tariff for the use of public electricity networks (TURPE), according to the provisions of article L. 341-3 [French] Energy Code and no longer just to propose them to the competent ministers, as envisaged in the law of 10 February 2000.

With regard to distribution, the CRE decided, for the period 2014-2017, an average rate increase of 3.6% on 1 January 2014 and then an indexation to inflation every 1 August starting in 2014. For transmission, it decided on a tariff increase of 2.4% on 1 August 2013, and then an indexation to inflation every 1 August from 2014[1].

Aside from these tariff developments, 2013 was marked by the particular context of preparing these rates linked to the cancellation by the Council of State of TURPE 3, applicable to the period from 1 August 2009 to 31 July 2013, as regards electricity distribution.

The CRE's resolutions

Purpose	CRE resolution	Entry into force	Expiry or duration	Competent authority	Comment
HVA / LV (distribution networks)	29 March 2013	1 August 2009 (retroactive)	31 July 2013	Ministers on the proposal of the CRE	Tariff set retroactively to replace the tariff cancelled by the Council of State (coverage of accounting charges).
	28 May 2013	1 August 2013	31 December 2013	CRE	Extension of the approach of the previous tariff (coverage of accounting charges) until the end of 2013.
	12 December 2013	1 January 2014	About 4 years	CRE	New distribution tariff fixed according to a new methodology.
HVB (transmission networks)	3 April 2013	1 August 2013	About 4 years	CRE	Fixed rate according to the timetable and the methodology originally planned.

The cancellation of TURPE 3 distribution by the Council of State led the CRE to unbundle the transmission and distribution and to develop three successive tariff decisions regarding distribution in 2013.

In addition, the strong involvement of stakeholders in the consultation process once again shows the interest aroused by electricity delivery tariffs.

1.1. 2013 WAS A VERY TUMULTUOUS YEAR FOR ELECTRICITY DELIVERY TARIFFS

The CRE has been working on preparing TURPE 4 since 2010, originally intended to encompass the transmission and distribution networks in one decision to be applied as of 1 August 2013. The tariff process has been strongly marked by the decision of the Council of State of 28 November 2012, on an appeal from SIPPEREC, at the end of more than three years of procedure, to cancel TURPE 3 as regards distribution networks. This cancellation led to the unbundling of transmission and distribution, and the drawing up in 2013 of three successive tariff decisions regarding distribution.

1 – In both cases, excluding the taking into account of potential differences between the trajectories forecast and implemented for the expenses and revenue items included within the adjustment account of expenses and revenue.

The rehabilitation work of the 220 kV Margeride-Pratclaux line (June 2013) will allow the renewable energy production capacity to be developed in the south of the Auvergne region.
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© RTE – William Beaucardet

WHAT IS THE PURPOSE OF

AN INCENTIVE REGULATION?

An incentive regulation consists of awarding a bonus or the application of a penalty to an operator according to the achievement or not of the ex-ante objectives set. If the operator's performance is below the target set, a penalty is applied. Conversely, if its performance is above the target set, it is awarded a bonus.

This incentive is built into the delivery tariff that constitutes the main source of revenue for network operators. It aims at improving the performance of operators in the areas of investment, cost control, the quality of service offered to their customers (by reducing commissioning and connection delays in particular) and the quality of supply (by reducing power-cut times).

THE CRE HAS HELD 5 PUBLIC CONSULTATIONS SINCE JULY 2010 TO DRAFT THE NEW ELECTRICITY TRANSMISSION AND DISTRIBUTION TARIFFS

As a result of the cancellation of TURPE 3 for distribution, the CRE proposes the approval of new distribution tariffs to the competent ministers to apply retroactively on the current period from 1 August 2009 until 31 July 2013, calculated by taking account of the reasons stated in the decision of the Council of State. This required these new tariffs to be adopted in accordance with the procedure in force in 2009 and for them to apply before 1 June 2013.

Taking the applicable procedures into account - which require the holding of a public consultation, a deadline for the approval of the CRE's proposal by the ministers and the referral to the Higher Energy Council (CSE) - the Council of State's decision has in practice forced the CRE to draft the terms of these new tariffs within a period of two months.

In such a short time, it was impossible for the CRE to conduct the work to adapt the method of remuneration commonly used by most European regulators to the principles established by the Council of State in its decision. This work was not compatible with the initial timetable for preparing the tariffs which were to succeed TURPE 3 and which were to come into force on 1 August 2013.

The CRE therefore decided to propose a retroactive tariff to ministers that was essentially based on covering the network operator's accounting charges. This method was not preferable for the CRE, due to its lack of an incentive nature. However, this disadvantage disappears in the case of a retroactive tariff. It was also the only method possible in the deadline that was given to prepare this tariff. In order to have the necessary time to draft a perennial method, the CRE decided to postpone the entry into force of TURPE 4 for distribution networks (called "TURPE 4 HVA/LV") to 1 January 2014 and accordingly extend the transitional approach from 1 August to 31 December 2013 based on covering the accounting charges.

The schedule for preparing TURPE 4 transmission tariffs (called "TURPE 4 HVB") has not been changed. This tariff came into force on 1 August 2013 for a period of approximately four years.

1.2 TURPE AT THE HEART OF STAKEHOLDERS' CONCERNS

To draft the new electricity transmission and distribution tariffs, the CRE has conducted five public consultations since July 2010 and listened to the actors concerned in June 2012, December 2012 and July 2013. These meetings aroused a strong involvement from stakeholders, as demonstrated by the thirty or so contributions received on average at each public consultation.

Consumer associations, suppliers, authorities that organise electricity distribution (AODE), employee trade unions and several professional unions actively participated in this consultation process and sometimes expressed very different positions on some subjects. For example, some versions of TURPE proposed temporal differentiation tariffs, i.e. they have price changes according to the seasons, days of the week, and/or time of day. However, the stakeholders had very contrasting assessments on the adequate degree of temporal differentiation. The level of investment and the quality of power supply, as well as the level and the incentives concerning operating expenses were also the subject of debate.

The entry into force of the [French] Energy Code (article L. 134-9) also introduced another new feature for the development of the tariff with the consultation of the Higher Energy Council prior to its tariff decisions.

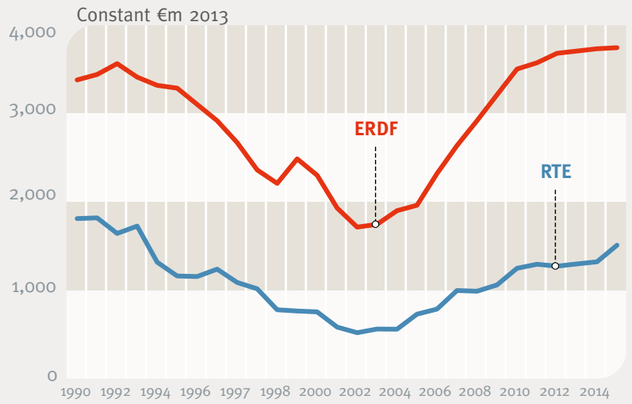
2. THE TARIFF FRAMEWORK OFFERS NETWORKS OPERATORS THE ABILITY TO SUSTAIN A RISING INVESTMENT TRAJECTORY

Operators of public electricity transmission and distribution networks are responsible for making the necessary investments for the proper functioning of the networks they are responsible for, in accordance with the provisions of articles L. 321-6 and L. 322-8 of the [French] Energy Code. In return, the tariff revenue regulated by CRE ensures they receive remuneration of the capital invested which takes account of the degree of risk of the activity. The amounts set aside for investment by ERDF and RTE have constantly risen since 2008. In relation to the amounts of investment made over the previous tariff period (2009-2012), the investment planned by ERDF (excluding the Linky project) and RTE over the period of TURPE 4 (2013-2016 in the case of transmission and 2014-2017 in the case of distribution) are respectively rising from 27% and 40% in current euros. This trend reflects the willingness to back the necessary changes to the electricity system. The special accounting and financial features of ERDF, highlighted by the Council of State, have led to adjusting the calculation of the remuneration of capital in relation to the tariff approach defined in the framework of TURPE 2 and retained for RTE in the framework of TURPE 4 HVB.

In addition, taking into account the issues associated with the development of new cross-border infrastructure, the CRE has decided to put in place the appropriate incentives to promote the integration of markets and the security of supply, in accordance with Directive 2009/72/EC.

THE FRENCH ENERGY CODE PROVIDES THAT THE CRE CONSULTS THE HIGHER ENERGY COUNCIL PRIOR TO ITS TARIFF DECISIONS.

The amounts set aside for investment by ERDF and RTE have constantly risen since 2008



In relation to the amounts of investment made over the previous tariff period (2009-2012), the investment planned by ERDF (excluding the Linky project) and RTE over the period of TURPE 4 (2013-2016 in the case of transmission and 2014-2017 in the case of distribution) are respectively rising from 27% and 40% in current euros.

THE INSERTION OF NEW DECENTRALISED PRODUCTION FACILITIES REQUIRES GRIDS REINFORCEMENT WORKS.

2.1. CONSTANTLY RISING INVESTMENT TRAJECTORIES

After an almost continuous decline since the beginning of the 1990's and the achievement of a minimum in 2004, ERDF and RTE have entered a new investment cycle. The increased investment requirements are explained by several factors.

On the distribution network

With regard to the distribution network, the first major issue is improving the quality of supply. The prospects for investment in quality presented by ERDF are geared towards an increase. These investments are directed towards actions that contribute to upgrading, improving reliability and securing networks. ERDF also indicated that it plans to assign its investments in HVA networks as a priority through the targeted burying of the aerial network and the renewal of obsolete underground networks.

In addition, the development of decentralised production profoundly changes the structure of the electricity networks. They were, in fact, originally designed to deliver electricity centrally toward areas of consumption. Thus, the insertion of new decentralised production facilities requires reinforcement work in order to permit the bidirectional operation of electrical networks.

Finally, in addition to these investments and in order to better respond to issues related to the new production and consumption modes, operators of the distribution networks are also engaged in network modernisation processes. This modernisation is achieved through greater automation of the operation of the network, which contributes to improving the quality of supply. It also concerns metering devices.

On the transmission network

The transformation of the energy mix to European and French levels leads to greater volatility and a wider range of electricity flows between north and south both at European and national level. To support these changes, RTE must therefore accelerate the development of new cross-border interconnection lines and strengthen the very high voltage network to ensure the fluidity of inter-regional transmissions.

The securing of the electrical supply of areas with electrical weaknesses or characterised by a growth in a very dynamic consumption is the second issue confronting RTE. It also plans to secure the electricity supply for Brittany, the PACA region, the south of the Pays de Loire region, the Vendée, as well as that of several regional cities by 2020.

Finally, RTE will spend approximately €400 million a year on renewing equipment at the end of its life.

Unlike the case of the electricity transmission network, the law does not give the CRE any competence over decisions concerning the level of investment in the distribution networks. It is the forecast investment trajectory communicated by ERDF that is used to determine the level of the tariff.

THE DISTRIBUTION OF COMPETENCES REGARDING INVESTMENT: WHO DOES WHAT?

In terms of transmission, *the CRE approves the network operator's investment programme every year. It also examines the ten-year investment programme, which describes the main infrastructure to be built in the next ten years, as well as any projects to be commissioned within three years.*

Article L. 321-6 of the [French] Energy Code provides that if the transmission network operator has not carried out an investment project which, in application of the ten-year programme, should have been completed within a period of three years, the CRE could issue notice to comply with this obligation or launch a call for tenders for the project to be completed by a third party.

In respect of distribution, *European law and French law have not entrusted the CRE with the power to assess the relevance of the trajectory of investment presented by ERDF. In contrast, the departmental conferences, which bring together authorities granted concessions and ERDF under the aegis of the prefect, have been responsible, since the law of 7 December 2010 (article L. 2224-1 of the [French] General Code of the Local Authorities to develop a forecast programme of all the envisaged investments on the public distribution networks.*

In 2013, the CRE clarified several points:

- *Unlike the case of the electricity transmission network, the law does not give it any competence over decisions concerning the level of investment in the distribution networks. This is ERDF, the network operator's responsibility, in consultation with the communities granted concessions within the framework of departmental conferences organised under the aegis of the prefects.*
- *It is not the tariff for the use of public electricity transmission and distribution networks (TURPE) which determines the level of investment. On the contrary, it is the forecast investment trajectory communicated by ERDF that is used to determine the level of the tariff.*
- *If the investments made deviate from the forecast trajectory communicated by ERDF, the level of the charges relating to the investments covered by the tariff is automatically adjusted. In fact, these charges (capital depreciation and remuneration) are included in the adjustment account for expenses and revenue (CRCP).*

Apart from the transformation stations that are the interface with the transmission network, the works of the public distribution networks belong to the local authorities, and not to the network distribution.
© ERDF – François Chevreau

THE CRE HAS DEVELOPED A NEW METHODOLOGY FOR DETERMINING THE REMUNERATION OF ERDF' S CAPITAL IN ORDER TO FULLY TAKE INTO ACCOUNT THESE SPECIFIC FEATURES OF THE SYSTEM OF DISTRIBUTION CONCESSIONS FOR ELECTRICITY.

2.2. A NEW METHOD FOR CALCULATING THE CAPITAL CHARGES OF THE DISTRIBUTORS TO TAKE ACCOUNT OF THE DECISION OF THE COUNCIL OF STATE

2.2.1. What does the decision of the Council of State say?

By a decision of 28 November 2012 (Société Direct Energie and Syndicat intercommunal de la périphérie de Paris pour l'électricité et les réseaux de communication (SIPPEREC)), the Council of State has cancelled the TURPE 3 tariff as regards the distribution networks, in considering that the method adopted for determining the remuneration of ERDF's capital was marred by a legal error. The Council of State noted that in calculating the weighted average cost of capital (WACC) as if ERDF's liabilities had comprised 40% equity and 60% debts, the CRE had totally failed to take into account the liability items «specific concession accounts» and «provisions for the renewal of capital assets», which represented very substantial amounts. The legal error resides for the Council of State in the absence of taking any account of these liability items - which are specific to the French concessions system for distribution - in the methodology chosen by the CRE to calculate the WACC.

2.2.2. What are the specific features of the concessions of the French distribution model and how do they translate to ERDF's accounting balance sheet?

One first feature of the French concession scheme is that, apart from transformation stations, which are the interface with the transmission network, the works of the public distribution networks belong to local authorities, and not to the network distribution operators.

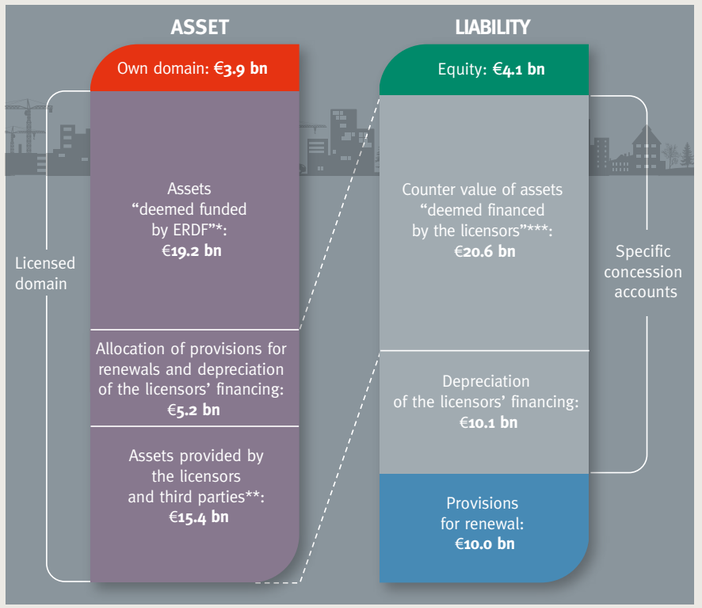
In addition, the contracting authority for work on the networks, if it is entrusted to ERDF in the majority of cases, can relieve the authorities granted concessions of certain work on networks - mainly on low voltage networks in rural areas.

These asset-related and operational specific features have accounting consequences. ERDF's balance sheet presents the particularity of consisting of very low equity capital and no financial debt. On the other hand, it includes specific concession accounts as well as provisions for renewal.

At the end of 2012, the specific concession accounts and the provisions for renewal amounted to €40.7 bn, that is most of the liabilities of the top of ERDF's balance sheet which amounted to €45 bn › see box opposite.

These two items cover two categories of resources:
– On the one hand works delivered freely by the licensors and third parties;
– On the other hand for the pre-financing (provisions for renewal and depreciation of the financing of the licensors) which are ultimately earmarked for investment and which are financially considered as a financing by licensors.

ERDF's long-term uses and resources ("top of balance sheet"), amounts at end of 2012



* The assets "deemed funded by ERDF" correspond to the amount of funding of the concession holder not depreciated, as presented in ERDF's company accounts.
** This distinction between, on the one hand, the assets provided by the licensors and third parties and, on the other hand, the allocation of provisions for renewal and depreciation of the licensors' financing follows an extra-accounting analysis.
*** "Deemed funded by the licensors" concerns an asset because at the time of renewal of the asset, the provision and depreciation of the licencors' financing formed under the replaced asset are considered financing of the licensor on the new asset. This amount may also be called "rights of the licensors to existing assets".

2.2.3. What are the consequences of the method for calculating capital charges?

The method usually used to pay a network operator consists of applying a single remuneration tariff to a regulated asset base (RAB), which covers both the cost of debt and the cost of equity, which are estimated by taking into account the risk associated with the activity.

This RAB remuneration approach offers the advantage of making a direct link between the level of remuneration and the service rendered to users because the quality and continuity of this service rendered depend on the amount of available network.

However, in the case of ERDF, the accounting balance sheet is very particular because it includes extensions to the liabilities specific to the concession economy, which are the specific accounts of the concessions and the provisions for renewal. However, these liability items present the special feature of not generating financial costs for ERDF. In addition, ERDF's balance sheet does not present any conventional financial debt. The method for calculating capital charges has therefore been adapted to take into account this lack of financial costs, while maintaining a RAB remuneration approach.

In summary, this approach is about distinguishing three components to determine the cost of capital:
– Remuneration at the risk-free equity rate. The definition of equity used in the framework of the distribution tariff deviates from the accounting definition, in order to only pay the equity, which is used to fund network assets. For example, equity, which would be placed in financial assets, would not be remunerated;
– Remuneration of the regulated asset base at a margin on assets rate of 1.65% after corporation tax (or 2.5% before tax) established according to the degree of risk associated with the activity;
– Coverage of financial charges, if applicable. The latter are now equal to zero.

In addition, the tariff also covers all allocations to depreciations of assets and allocations to provisions for renewal, in accordance with article L. 341-2 of the [French] Energy Code, which stipulates that tariffs must especially cover all the costs resulting from executing public service tasks and contracts. In conclusion, the CRE has chosen a method, which

In its tariff decision TURPE 4, the CRE introduced measures and incentives to encourage RTE to carry out interconnection projects and on their proper use.
Photo: Far-reaching 400,000 Volts Bassecourt-Mambelin line linked to Switzerland.
© RTE – Laurent Baratier

covers all depreciations and provisions for renewal (and, if applicable, financial charges) and provides ERDF with reasonable remuneration for its investment:
– Investments financed only by equity will be paid at 8.6% (before corporation tax);
– Investments financed by debt and by equity will be remunerated at a level, which will depend on the cost of the debt and the distribution of funds between debt and equity;
– For investments financed by concession liabilities ERDF will receive a remuneration rate of 2.5% before corporation tax.

THE CRE HAS FIXED A TARGET OBJECTIVE FOR ERDF FOR 2017 OF 94% OF COMMISSIONING TO BE COMPLETED WITHIN THE TIMEFRAME REQUESTED BY USERS

2.3. FINANCIAL INCENTIVES FOR DEVELOPING INTERCONNECTIONS MAY BE PUT IN PLACE

The development and proper use of interconnections are the first conditions for the emergence of an integrated European market. Interconnections also allow the optimisation of the resources of the electricity system in a context of the strong development of electricity production from renewable energy sources. Finally, they participate in the consolidation of the security of supply and the safety of the electrical system.

However, interconnection projects are distinguishable from other investments that RTE makes. They require specific efforts on the part of the transmission network operator that must overcome the difficulties related to coordinating with its counterparts, obtaining permits, local acceptability and the technical challenges to be met to cross natural barriers.

In its tariff decision TURPE 4, the CRE introduced measures and incentives to encourage RTE to carry out interconnection projects and on their proper use. This incentive mechanism is in agreement with energy policy guidelines because it contributes to developing border trade capabilities. It supports the national and European network development outlooks in the medium and long term.

For increased readability, the incentive has been broken down into several separate parts:
– A fixed bonus as an incentive to carry out a project. The fixed bonus is intended to offer an incentive to complete the project as quickly as possible. It is a function of the interconnection interest for the community;
– A bonus/penalty depending on costs. The bonus/penalty relative to costs will be even more interesting for RTE as it will be able to cut its investment expenditure on this project, in relation to its initial budget;
– A bonus/penalty according to the energy trades made. The bonus granted will be much higher if the flows recorded are higher than those provided by RTE;
– The sum of these components may not exceed an amount deemed reasonable by the CRE in the light of the interconnection interests for the community.

ERDF MUST IMPROVE ITS PERFORMANCE TO MEET THE DEADLINES FOR COMMISSIONING AND CONNECTING PRODUCERS.

Financial incentives will be paid after the infrastructure has been commissioned, which comes back to implicitly introducing an incentive for making the investments as soon as possible. In fact, the cost of capital is already covered by the remuneration of the RAB at the weighted average cost of capital; the incentive is an additional benefit for RTE that generates much more value for the transmitter if it manages to obtain them early.

Finally, it should be emphasised that a poor performance in terms of cost control or energy trade flows much lower than those originally planned by RTE may lead to the fixed bonus being cancelled.

The CRE raised the level of requirement concerning timeframes for responding to complaints from users: there is now a financial incentive for the response rate to claims within 15 days, instead of 30 days for TURPE 3.
© ERDF – William Beaucardet

3. A TARIFF FRAMEWORK INCENTIVISING AN IMPROVEMENT OF QUALITY

The CRE contributes to the establishment of safe, reliable and efficient networks for the benefit of consumers, through incentives to improve the quality of supply and the quality of service.

In the area of quality of service, the CRE has introduced new financial incentives to improve the relationship of ERDF with users of the network (consumers, suppliers and producers). The distributor must improve its performance to meet the deadlines for commissioning and connecting producers. For illustrative purposes, the CRE has fixed a target objective for ERDF for 2017 of 94% of commissioning to be completed within the timeframe requested by users. This rate was estimated at approximately 84% in 2011. A better performance than the target objective will give rise to a bonus. A worse performance than the target objective will result a penalty.

The level of requirement concerning the deadlines for responding to complaints from users was also raised: a financial incentive now concerns the response rate to complaints within 15 days, instead of 30 days for TURPE 3.

In addition to the duration of the power cuts, their frequency is now the subject of monitoring for distribution and a financial incentive in the case of transmission. Also, power cuts for works are now taken into account in area of incentives.
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In addition, the CRE has extended the incentivising regulation for the quality of service to local distribution companies and EDF SEI.

Concerning the quality of supply, the duration and the frequency of cuts are monitored

For these new transmission and distribution tariffs, the CRE has decided to strengthen the incentive on the average length of power cuts by increasing the financial penalties to be paid in case exceeding the time allotted.

Concerning transmission, the CRE decided to maintain the average reference power cut time at 2.4 minutes, as in TURPE 3. The financial penalties applied to RTE have been fixed at €10.4 m per minute of power cut compared with €9.6 m per minute in the framework of the previous tariffs.

For distribution, the average reference power cut time has been set at 68 minutes for 2014. It will decrease by one minute per year to achieve the target of 65 minutes in 2017. The penalties applied to the distributor ERDF increased from €4 m to €4.3 m per minute of power cut. In addition, power cuts for works are now taken into account under the incentives.

The CRE has finally multiplied the amount of compensation paid by ERDF to consumers in the event of a power cut for more than 6 hours by 10. This amount went from €1 on average, as originally envisaged by the regulations, to €10 for a residential consumer.

In addition to the duration of the power cuts, their frequency is now the subject of monitoring for distribution and a financial incentive in the case of transmission.

X10

THE CRE HAS MULTIPLIED BY 10

THE AMOUNT OF COMPENSATION PAID BY ERDF
TO RESIDENTIAL CONSUMERS IN THE EVENT OF A POWER CUT FOR MORE THAN 6 HOURS
THIS AMOUNT WENT FROM €1 ON AVERAGE, AS ORIGINALLY ENVISAGED BY THE REGULATIONS, TO €10

THE CRE REINFORCES INCENTIVES
TO CONTROL OPERATING EXPENSES CONSIDERED CONTROLLABLE

The CRE shall ensure that network operators offer the most advanced level of service at the best price. That is why the incentive measures concerning the improvement of the quality of supply and service are accompanied by cost control incentives. Therefore, in the framework of TURPE 3, the CRE had put in place an incentive to control the operating costs of RTE and ERDF based on the setting of a target productivity level. In the case of achieving this productivity level, network operators retained 50% of the profit resulting from the additional productivity efforts. In the case of not achieving the target, network operators assumed 100% of the counter performance. In the framework of TURPE 4, the CRE renewed and strengthened this incentive by granting network operators 100% of the profit resulting from the additional productivity efforts.

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ELECTRICITY QUALITY, A COMPLEX CONCEPT

The term "quality of electricity supply" covers three different concepts:

- ***The quality of the voltage wave.*** *It is affected by fluctuations in frequency, rapid fluctuations of voltage (voltage jolts, flickers, voltage dips), slow fluctuations of voltage, imbalances, impulse and harmonic over-voltages;*

- ***The continuity of supply.*** *It is affected by unexpected interruptions (long power cuts for more than 3 minutes, short interruptions of between 1 second and 3 minutes or very short power cuts for less than 1 second, also called micro-power cuts) and scheduled outages (related for example to work on networks);*

- ***Service quality.*** *This characterises the relationship between the network operator and the supplier or the user of the networks (connection times, appointment times kept, deadlines for responding to complaints, quality of the reading, etc.)*

As in most European countries, the incentives put in place by the CRE relate to the continuity of supply and the quality of service. The quality of the voltage wave is an area covered in part by regulations.

With regard to the continuity of supply, the indicator most often used is that of the average length of the power cut. Just like many European regulators, the CRE has excluded incentives for power cuts during exceptional events.

Over the TURPE 4 period, electrical losses represented on average 10% of charges to be covered by the tariff for ERDF (approximately €1,290 bn per year) and 15% for RTE (or approximately €630 m per year).
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THE CRE HAS ACCEPTED A SIGNIFICANT INCREASE TO THE R&D BUDGETS OF ERDF AND RTE WHO PLAN TO ALLOCATE ON AVERAGE APPROXIMATELY €58 BN AND €27 BN OF OPERATING EXPENSES RESPECTIVELY PER YEAR BETWEEN 2014 AND 2017.

4. A TARIFF FRAMEWORK CONDUCIVE TO INNOVATION AND THE MODERNISATION OF THE NETWORKS

The CRE attaches particular importance to modernising the networks. It has therefore introduced a favourable framework for research and development and has put in place a mechanism for monitoring the volume of electrical losses, in order to monitor the energy performance of networks more closely.

4.1. RESEARCH AND DEVELOPMENT (R&D)

Electrical networks are undergoing several changes linked to the development of renewable energies and new uses of electricity, as well as energy management challenges. New technologies must be put in place to modernise the electricity networks and meet these new challenges › see file p.78.

In an extension of the work that it is doing on the subject of smart grids, the CRE is paying particular attention to innovation. It therefore introduced a regulatory framework intended to support the R&D activities of ERDF and RTE.

The CRE has accepted a significant increase to the R&D budgets of ERDF and RTE who plan to allocate on average approximately €58 bn and €27 bn of operating expenses respectively per year between 2014 and 2017.

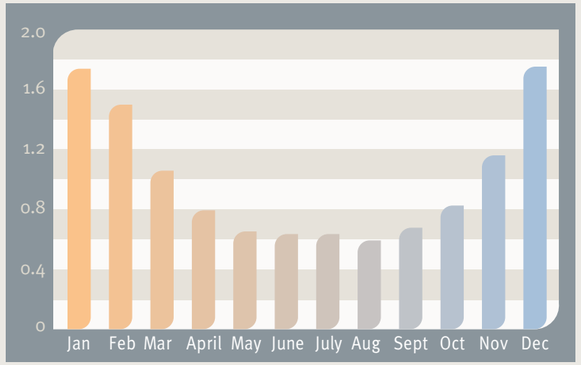
The budgets allocated to R&D and not used by operators will be returned to users. This mechanism is intended to encourage operators to carry out the announced projects and to prevent efficiency gains from being made at the expense of innovation.

4.2. ENERGY EFFICIENCY OF THE NETWORKS

Electricity losses constitute a significant expense item covered by the TURPE: over the period TURPE 4, they represent on average 10% of the expenses to be covered by the tariff for ERDF (approximately €1,290 m per year) and 15% for RTE (approximately €630 m per year).

In addition, taking account of the challenges linked to the improvement of energy efficiency, the CRE has questioned the relevance of putting TURPE 4 in place to offer an incentive to controlling loss volumes. It emerged from its analysis that, if the networks operators have some tools to contain loss volumes, several factors call into question the relevance of a device for financial incentives to reduce the rate of loss.

Seasonal profile of network costs incurred by users connected in LV ≤ 36 kVA:



The cost distribution profile incurred by users connected to low-voltage networks for power subscribed to that is less than 36 kVA varies according to the different months of the year (therefore the y-axis values only have a relative value in relation to each other).

Therefore, the definition of a target loss rate is particularly delicate. How do you take into account the influence of the development of decentralised production, new uses of electricity or even climatic conditions on the evolution of the loss rate achieved? To date, there is a significant lack of visibility regarding flexibility in terms of controlling loss volumes by network operators, and particularly by ERDF. However, it is essential that targets and performance indicators be appropriately defined for an incentive regulation device to actually make it possible to reward or penalise the network operator.

The CRE however wants to monitor the actions carried out by network operators to control the volume of losses and has put in place a mechanism for monitoring these actions for the period TURPE 4. It will enable the necessary information to be gathered allowing, where appropriate, a system of financial incentives to be set up to control volumes of losses for the next tariff periods

LINKY METER: TURPE 4 FORESEES THE POSSIBILITY OF DEFINING A SPECIFIC REGULATION FRAMEWORK

The rollout of Linky smart electric meters is a major milestone in the development of smart grids; regulation will have to adapt to this reality.
In its TURPE 4 distribution tariff decision the CRE recalled, as it already mentioned in its public consultation in November 2012, that it is prepared to welcome ERDF's request to have an adapted regulatory framework.
It is a question of ensuring progressive coverage of the costs of deploying the new meters making it coincide over time with the achievement of the expected gains arising from the investment or operation costs avoided, thanks to the smart meter.
This coverage of costs will also be ensured by the allocation of a compensation award dependent on performance objectives in terms of cost, time and quality of service. This tariff device will, if necessary, be the subject of an ad hoc tariff resolution.

NATURAL GAS TRANSMISSION RATES
ALSO CHANGED IN 2013

The natural gas transmission tariffs ATRT5 of GRTgaz and TIGF entered in force on 1 April 2013 and provide for a tariff framework for a period of approximately four years. They are updated every year on 1 April to integrate in particular energy cost variations, which constitute a major expenditure item for network operators, and developments to the structure of the gas market.

Tariff changes on 1 April strengthen the integration within the European gas market
The entry tariffs on the French natural gas transmission networks are currently higher than in most neighbouring countries. In order to promote the integration of the French market within the European market, the CRE decided that these tariffs would be frozen in constant euros until the end of the ATRT5 tariffs.

Towards a single marketplace in France
Today there are three marketplaces in France, in the GRTgaz zones North and South as well as in the TIGF zone. The CRE has decided to create a common marketplace in the GRTgaz South and TIGF zones on 1 April 2015 and announced the prospect of a single marketplace in 2018. In view of the creation of one marketplace in the south of France in 2015, the CRE has reduced the tariff to the interface between the GRTgaz South and TIGF zones as well as the gap between the tariffs at the transport storage interface points in the GRTgaz South zone and in the TIGF zone.

GRTgaz and TIGF tariff increase
On 1 April 2014, the tariffs for users of GRTgaz and TIGF will increase by an average of 3.9% and 7.7% respectively compared to the tariffs currently in force. These increases are mainly due to a decline in transmission capacity subscriptions by shippers, and to the increase in energy expenditure among TIGF.

THE NEW TARIFFS TAKE INTO ACCOUNT A MORE ACCURATE DIFFERENTIATION OF NETWORK COSTS BETWEEN SUMMER AND WINTER.

5. BETTER ACCOUNT TAKEN BY SEASONAL COST TARIFFS

The drafting of TURPE 4 has been an opportunity to perform extensive work on the tariff structure, i.e. on the allocation of network costs among the various users. Special attention has been paid to improving time-seasonality tariff signals, for which the kilowatt-hour price varies according to the season and/or the time of day.

TURPE 4 marks a break with the previous tariffs by introducing temporal differentiation tariffs for HVB2 and HVB1 voltage domains. They became mandatory for all users connected to the voltage domains HVB2 and HVB1 on 1 August 2013. To do this, the CRE has developed a new methodology for constructing tariffs, based on taking account of hourly costs for the use of networks. These works have revealed that the latter are more differentiated between the summer and the winter than they are between peak hours and off-peak hours of the day. This is explained in particular by the fact that the capacity of the networks, which creates fixed charges, is notably defined according to peaks, which typically take place in winter › see graph p.75.

The new tariffs take into account a more accurate differentiation of network costs between summer and winter. This rebalancing of network costs over the year has led, in the new methodology for preparing tariffs, to assigning a larger share of the network costs to users whose consumption profile is strongly seasonally adjusted, i.e. very different in summer and in winter.

In the case of transmission, for example, one of the users who squeezes the most out of the HVB1 voltage domain is ERDF, through its source stations. However, the extractions by the distributor are much more seasonally adjusted than the extractions of other users of the transmission network (industrialists). Therefore, the average consumption of users connected to the voltage domain HVB1 is relatively more seasonal than the average consumption of users connected to the transmission system. The average cost for using networks therefore increases for users connected to the voltage domain HVB1 and decreases for users connected to the voltage domain HVB2.

Similarly, in the area of LV voltage, the taking into account of the hourly costs for the use of networks has involved changes in the structure of distribution tariffs and therefore of the distribution of network costs among the various categories of users.

Therefore, for the same range of power subscribed to, the average cost of the delivery tariff with a temporal differentiation offered to users connected on low voltage has increased more than that of delivery tariffs without a temporal differentiation.

“THE INCENTIVES TO REDUCE COMPLETION DEADLINES, CONTROL COSTS AND IMPROVE THE EFFECTIVE USE OF INTERCONNECTIONS ARE MOVING IN THE RIGHT DIRECTION.”

3 QUESTIONS FOR...

CATHARINA SIKOW-MAGNY,
HEAD OF THE NETWORKS AND REGIONAL INITIATIVES UNIT, DIRECTORATE OF THE INTERNAL ENERGY MARKET, EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR ENERGY

New guidelines came into force in 2013 to promote the development of energy infrastructure in Europe. What was the purpose of this?
The achievement of the internal energy market is of paramount importance to meet the European climate objectives at the best cost: the gains associated with the full integration of the energy markets of the member states have been estimated at being between €40 and € 70 billion a year until 2030. If the harmonisation of national regulations has already enabled us to achieve significant progress in this direction, we found that additional efforts should be made to ensure that the necessary infrastructure for the proper functioning of the internal market is put in place as soon as possible. The new guidelines for Trans-European Networks for Energy (TEN-E) introduce a radically different approach to overcome difficulties encountered in the past. We now have a process and harmonised principles for identifying infrastructure projects of common interest to all member states of the Union. To date, 248 projects of common interest (PCI) have been identified.

What are the tools put in place to ensure their achievement?
Firstly, the PCIs will be able to benefit from simplified administrative procedures by establishing a one-stop service in each member state. The TEN-E regulation also requires the duration of the procedures for granting permits not to exceed three and a half years. However, citizens will have to be systematically consulted before the final determination of these projects is decreed. Secondly, this new framework introduces new regulatory measures relating to funding the PCIs. On the one hand, it introduces the possibility of a cross-border division of investment costs, based on the costs and benefits analysis of each project for all member states according to a uniform method. If it turns out that a project is not economically viable for one of the member states on which the work is constructed, the project proponent of that member state may request the implementation of the cross-border costs allocation mechanism. The operators of the other member states for which this project has a positive impact may then be required to participate in its funding, up to a ceiling of the profits that they will receive. Several requests for cross-border costs allocation have already been submitted and are being reviewed by the relevant regulators. This initial exercise will enable feedback of experience on the interest of this device. On the other hand, additional financial incentives may be granted by regulators to more risky projects.

ACER is currently preparing a good practice guide intended to standardise the methods implemented by the national regulators to analyse the risks that may be associated with the PCIs. Finally, the PCIs will be able to benefit from financial support thanks to the mobilisation of a European fund (Connecting Europe Facility) of €5.85 billion for the budget period 2014-2020. However, this only applies to projects that would not be achieved without Community assistance, which would not be 100% commercially viable, but would offer positive externalities on a community or regional scale, such as, for example, in terms of the security of supply.

How do these legal developments affect the policies of the member states, particularly in France?
The work done by the French regulator seems very interesting. The CRE seems willing to promote the development of interconnections. The incentives to reduce completion deadlines, control costs and improve the effective use of interconnections are moving in the right direction.

SMART GRIDS

The involvement of the CRE in the subject of smart grids arises from the jurisdiction conferred upon it by the law to ensure the proper functioning and development of electricity and natural gas networks and infrastructure, to benefit the consumer.

The CRE played a leading role in the development of smart grids.

In 2010, it launched an ambitious programme of work aimed at creating synergies between the many players in the field.

CONTACTS OF THE CRE

- NETWORK OPERATORS
- PRODUCERS
- LOCAL AUTHORITIES
- SUPPLIERS
- REPRESENTATIVES OF NICTS
- INSTITUTIONAL STAKEHOLDERS (ADEME, CNIL, ETC.)
- CONSUMERS
- OEMS AND INDUSTRIALISTS
- ENERGY SERVICE COMPANIES

Facilitate the integration of renewable energy on the electricity network

Define guidelines and make recommendations for the entire chain

Anticipate the large-scale development of the electric vehicle

Set out the regulatory framework suitable for smart metering

Contribute to the development of the institutional framework and governance in the territories

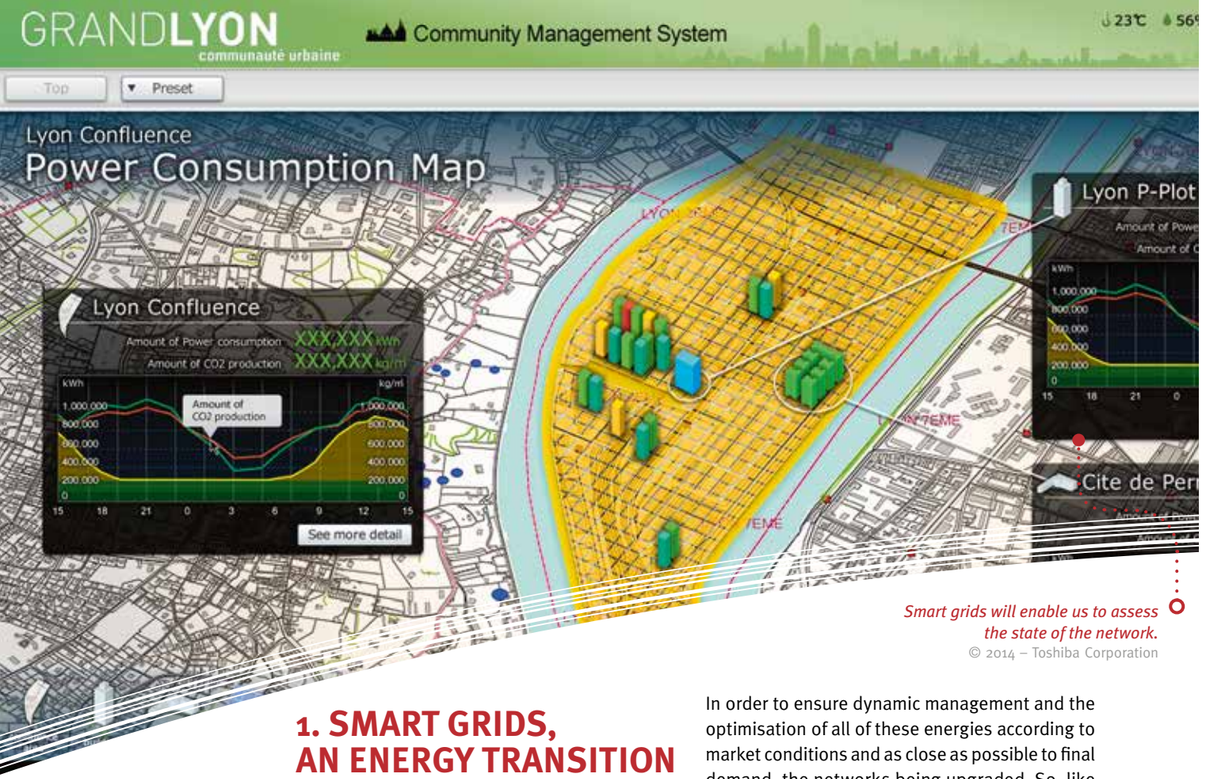
WORK TOPICS

- MANAGING THE RECHARGING OF ELECTRIC VEHICLES
- ECONOMIC MODELS
- STANDARDS AND INTEROPERABILITY OF EQUIPMENT
- DEMAND RESPONSE
- SMART METERS AND TARIFF TREATMENT PROJECTS
- SECURITY AND CONFIDENTIALITY OF DATA
- STORAGE DEVELOPMENT
- RESEARCH AND DEVELOPMENT
- ACTIVE DEMAND MANAGEMENT

THE CRE'S WORKING TOOLS

- ROUND TABLES IN REGIONS
- WEBSITE
- PUBLIC CONSULTATIONS
- CRE FORUMS
- MONITORING OF LOCAL EXPERIMENTS
- DISCUSSIONS WITH LOCAL AUTHORITIES
- CONSULTATION GROUPS
- WORKSHOPS

Unite and support innovative initiatives, which contribute to **modernising** the energy system



Smart grids will enable us to assess the state of the network.
© 2014 – Toshiba Corporation

1. SMART GRIDS, AN ENERGY TRANSITION TOOL

Energy transition is based in particular on reducing energy consumption and changes to the production mix by developing renewable energy, which is largely decentralised. It must also take into account the new uses for electricity, which are emerging, such as electric vehicles and heat pumps. To adapt to these changes, the energy networks will need to be upgraded to become more flexible. By integrating information and communication technologies, smart grids enable better interaction between the various stakeholders of the electricity system. They are a tool to support the implementation of the energy transition, while responding to the fundamental objectives assigned to networks: security, stability, reliability and quality of supply and service.

1.1. SMART GRIDS SUPPORT THE DIVERSIFICATION OF THE ENERGY MIX

The energy transition debate has focused in particular on the diversification of the energy mix, and on how to intelligently combine all available energy sources (electricity from renewable and nuclear, natural gas, heat sources, etc.) while taking account of environmental, energy supply security and cost issues.

In order to ensure dynamic management and the optimisation of all of these energies according to market conditions and as close as possible to final demand, the networks being upgraded. So, like the electricity networks, gas networks, heat and cold networks and water networks are becoming smarter by using information and communication technologies.

1.1.1. Development of renewable energy: impacts on better managed low voltage networks thanks to smart grids

The public electricity networks have limited capacity to inject power. Thus, in the current context of the relative saturation of receiving capacity of production on the electrical network, any connection of a new production facility may require measures to strengthen the network. Production facilities for renewable energies, which are mostly connected to the public distribution networks, lead to the emergence of specific restrictions (voltage increases, splitting risks, i.e. risk that part of the network will be temporarily disconnected from the main network, disturbance of the voltage waveform). By changing from a centralised and unidirectional operation to a decentralised and bidirectional operation, their development causes a change to the structure, planning and management of the electrical system.

Deadlines for processing connection requests mean that the new production facilities are placed in a queue. The first request for connection therefore benefits from any available capacity and following requests are processed by taking into account, the capacity used by the requests placed in the queue beforehand.

In this context, the CRE, whose mission is to ensure transparency and non-discriminatory access to the network, supervises the development and implementation of procedures for processing connection requests by public distribution network operators. In April 2013, as a result of two public consultations, it changed this supervision initially established in June 2009 and November 2010, to better take into account the interests of stakeholders, in a legislative, regulatory and technical context that is constantly evolving.

In the short and medium term, the solutions of smart grids will effectively contribute to the better integration of renewable energies into the networks. The tools and dedicated systems (inverters and controllable loads, electricity storage, etc.) will lead to more dynamic management and more flexible networks, for example enabling a better control of the voltage on the networks, thus reducing the need for reinforcements.

New information and communication technologies (NICTs) will also enable the state of the network to be assessed, to design architectures and smart network management and to model and simulate the energy flows delivered, to improve the forecast behaviour and management of the electricity system.

The renewable energy production facilities, which are mostly connected to the public distribution networks, create specific limitations. Their development causes a change in the structure, planning and management of the electricity system.
© ERDF — François Chevreau

1.1.2. The emergence of smart gas grids

In the same way as electricity networks, the gas distribution networks must adapt to the changing energy landscape and new uses. So, if they are already transmitting biomethane, "green gas" produced from waste material by methanisation, they should allow renewable energy produced from electricity (hydrogen) or gas (production of synthetic gas) to be transported and stored. Cities are also experimenting with modes of sustainable mobility with natural gas for vehicles and biomethane fuel.

The integration of NICTs on gas networks to make "smart gas grids" allows their effectiveness to be improved and to make consumers more aware of their energy consumption.

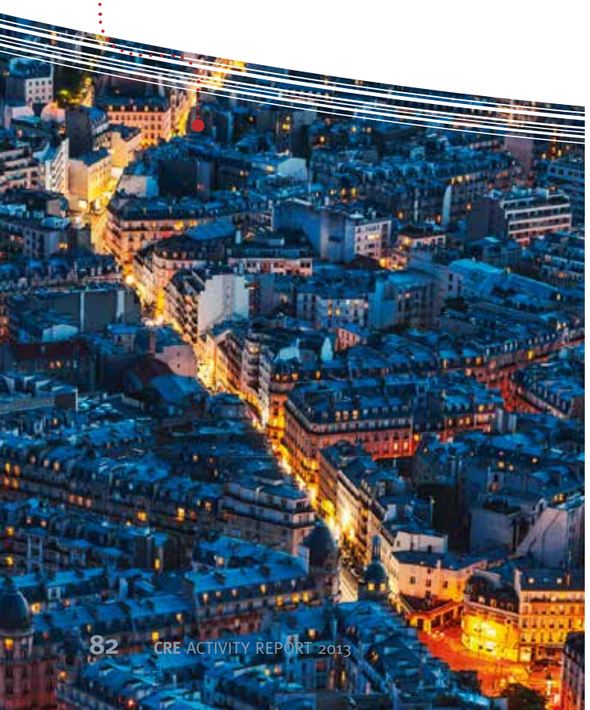
In this way, the smart metering project Gazpar of GrDF, the main operator of the gas distribution network in France, is one of the first building blocks of smart gas grids. As regards the distributor, the smart gas meter aims to optimise operation by gaining better knowledge of the state of flows on the networks and improving the quality of service. It will be a great tool for the consumer to manage energy demand. In addition, the new infrastructure will incorporate geographical information features and systems able to map, measure and monitor the network.

19 FEBRUARY 2013
CRE FORUM
ON SMART GAS GRIDS
in the presence of
Anthony Mazzenga
(*head of the Strategy, Strategy Delegation Regulation pole of GrDF*),
Pierre Germain
(*associated with ECube Strategy Consultants*)
and Bruno Charles
(*in charge of the prospective approach in energy matters and management and coordination of tools for sustainable development in Greater Lyon*)

THE "BIOMETHANE INJECTION" WORKING GROUP

As part of the structuring of the biomethane sector, the CRE participated in the "Biomethane Injection" working group.
This consultation forum is co-led by GrDF and the Agency for the Environment and Energy Management (ADEME) and brings together all the major players in the sector including project initiators, design offices, manufacturers, transmission and distribution network operators, the National Federation of Licensing Authorities (FNCCR) and the Directorate-General of Energy and Climate (DGEC). This discussion group submitted a procedure to the CRE, for deliberation defining rules of priority in relation to injection in gas networks.
The CRE conducted a public consultation on this procedure in December 2013 and published its resolution on 24 April 2014.
The CRE also participates, in the framework of this working group, in discussions on reverse reasoning, a technical solution allowing biomethane producers to increase the quantities of gas injected by accessing the available capacity upstream from their distribution area when the latter is saturated.

Rational energy management is a crucial issue for regions undergoing urban expansion, which are looking to increase their attractiveness by adopting economically and environmentally sustainable modes of operation.
© iStock



ONE OF THE SMART GRIDS CHALLENGES LIES IN THE COMPLEMENTARITY OF GAS AND ELECTRICITY NETWORKS.

Finally, one of the challenges lies in the complementarity of gas and electricity networks. The gas networks should actually diversify in relation to their traditional function of routing gas to end customers. They are now intervening in supporting electricity distribution networks due to decentralised production in buildings by cogeneration, micro-cogeneration and gas heat pumps. In addition, with power to gas technology, the gas networks will be able to support the electricity network whose storage capacity is limited. This technology consists of using surplus renewable electricity to generate hydrogen by electrolysis (or gas by methanation) and reinject it into the gas networks. It also serves to mitigate the variability of renewable energies.

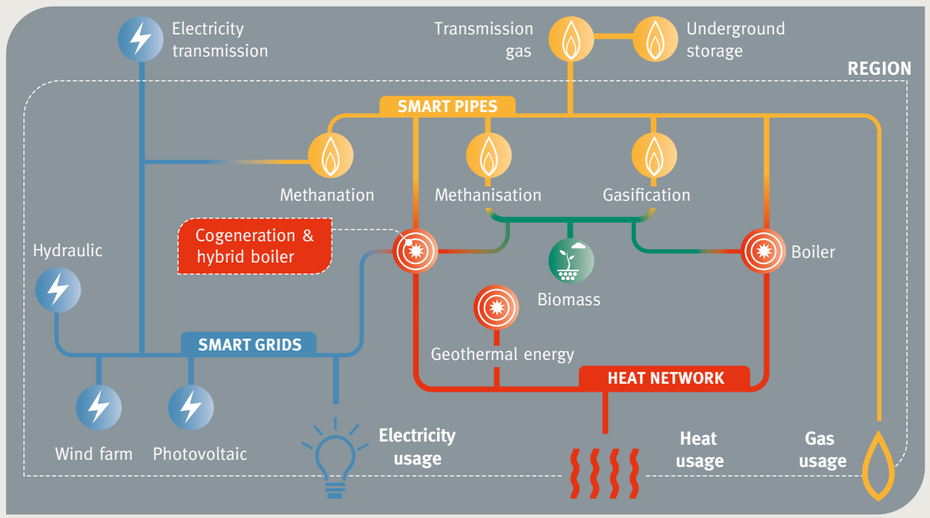
1.1.3. Smart networks: pooling networks in cities

The various fluid networks necessary for the proper functioning of the regions (electricity, gas, heat, cold, drinking water, waste water, telecoms) have so far been considered as independent of each other by network operators, urban planners and developers. However, the contribution of intelligence on the networks now allows a more efficient use of resources to be considered, based on the complementarity of the different energies and the synergy of the different networks. Rational energy control depending on the state of the system is a crucial issue for regions undergoing urban expansion, which are looking to increase their attractiveness by adopting economically and environmentally sustainable operating modes.

Multiple technologies are now available to implement these new interactions. Accessible to a growing number of end consumers, they enable a choice between the different network energies (electricity, gas, heat, cold) depending on the state of the system and market prices. This is the case, for example, for hybrid heat pumps. These facilities combine a condensing boiler and a small pump with electric heat. The latter is used as a priority. However, when the cold intensifies, its energy performance, which varies according to the external temperature, decreases. The condensing boiler then takes over. This switch from one heating mode to another allows the individual to reduce their bill. A hybrid boiler relieves the electricity network during extreme cold and offers attractive opportunities to cut electricity consumption at community level.

In the first half of 2014, the CRE devoted its forums on smart grids to smart heat and cold networks and smart water networks in order to examine the conditions of dynamic management and the optimisation of all energies in light of market conditions, the state of the system and more importantly final demand.

Smart energy networks, one of the keys to optimising territorial infrastructure



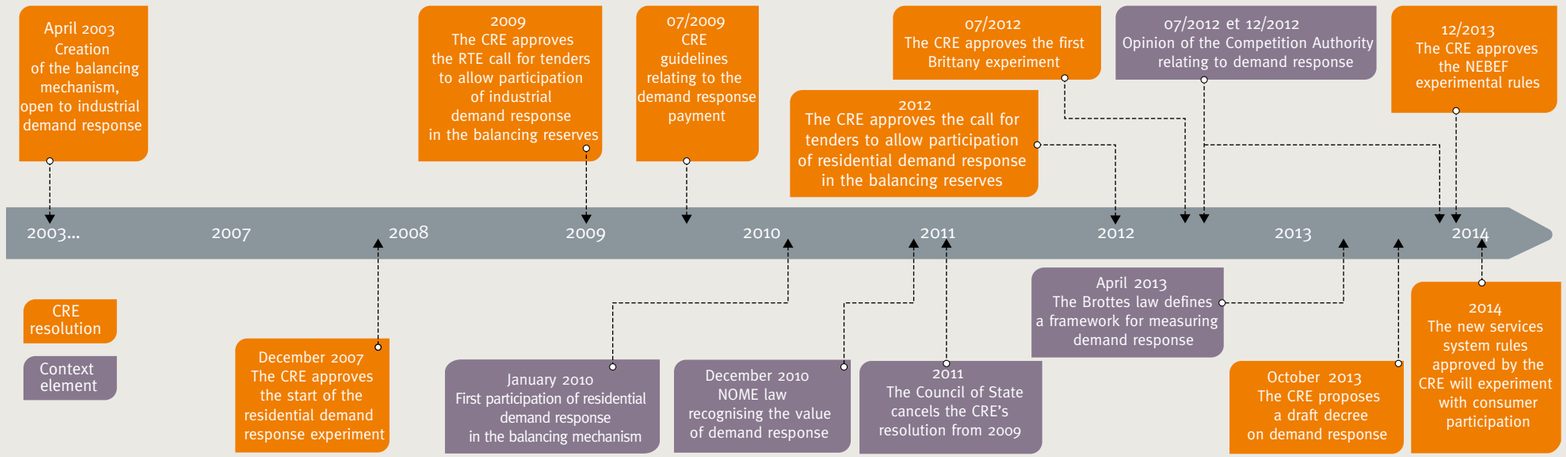
Source: GRDF

The contribution of intelligence on the networks now allows a more efficient use of resources to be considered, based on the complementarity of the different energies and the synergy of the different networks.

The CRE is convinced of the interest in developing demand management on a large scale for the electricity system because it will allow us to manage consumption peaks better.
© RTE – Stéphane Herbert

2003-2013: demand response achievements

Since 2003, the CRE has carried out a lot work with all the stakeholders from the sector to promote development solutions to cut consumption, by putting in place mechanisms to improve the load control capabilities proposed to the system (see timeline).



DEMAND RESPONSE:
A TOOL TO AID THE ENERGY TRANSITION

In a historical context of abundant and cheap energy, electricity consumption was usually satisfied by ensuring an equivalent level of production. Demand response offers a different paradigm to balance the electricity system: consume a megawatt-hour less rather than produce more. Demand response corresponds to a consumer's ability to adjust their level of consumption (by forgoing some consumption or by offsetting it over time) according to the external signals that they receive.

These signals can be automatic (remote control for consumption devices) or economic (varying the price as an incentive for the consumer to modify their behaviour). Among industrial and residential consumers, demand response introduces flexibility in electricity demand, allowing the level of consumption to be adapted according to the needs of the system or price levels.

The development of demand response also enables flexibility to be provided to the electricity network to cope with the short-term ups and downs (including the intermittency of variable energies), and to have additional capacity to secure the electricity supply in the longer term, during consumption peaks, for example.

Still limited, resorting to demand response is set to grow, so that consumers can now improve their flexibility on all the links in the chain of the electricity system - and to constitute an additional, if not indispensable tool for the energy transition.

1.2. NEW USES ARE CHANGING HOW THE ELECTRICITY SYSTEM IS MANAGED

The development of new uses and devices, such as heat pumps, electric vehicles and high-tech equipment and the increase in the power consumption that derives from subjecting electricity networks to greater restrictions. However, the construction of new infrastructure to strengthen the network and deal with this additional consumption raises issues of social acceptability and sustainability of investments. Optimising the management of existing networks by using smart grids is therefore one solution to ensuring balance between electricity supply and demand.

1.2.1. Smart grids will improve demand management and control electricity spikes

The balance between production and consumption must be maintained at all times to ensure the safety of the electricity system. Up to now, this balance was mainly achieved by adjusting energy supply to demand, with better supply conditions and costs. Now, the strong development of various renewable energies, which is hard to control, no longer allows the electricity system to be managed in this way. The balancing should therefore not be done only by supply, but also by demand. It is for this reason that consumption must be actively managed. Demand management systems have been available for several years. Therefore, the Tempo or Peak Day Load (EJP) tariffs encourage the customer to consume during the most favourable periods of the year or times of the day for the electricity system. If demand management has existed for a long time, it now takes on a new dimension by placing the consumer at the heart of the electricity system. New products and energy management services are being developed and innovative, accessible solutions and promising savings are already proposed such as device control, demand response › see box opposite, or even consumption synchronised with the production of renewable energy.

The CRE is convinced of the interest in developing demand management on a large scale for the electricity system. It will enable better management of consumption peaks by avoiding the start-up of thermal power plants and therefore by limiting CO_2 emissions, to increase the security of supply, to limit voltages on the electricity network and reduce congestion and finally to reduce the use of investments in costly state-of-the-art power stations.

© iStock

NEBEF: ALL CONSUMERS CAN VALUE DEMAND-SIDE FLEXIBILITY ON THE WHOLESALE ELECTRICITY MARKET

The law of 15 April 2013 intended to prepare for the transition to a simple energy system, called «Brottes law» amended the [French] Energy Code to clarify the legislative framework necessary for the implementation of a perennial demand response scheme. The limits of the legislative framework - which did not contain any provisions on the value of demand response and on the compensation of the energy saved - led the Council of State to cancel the CRE's resolution of 9 July 2009 on the integration of residential demand response within the balancing mechanism on 3 May 2011.

In July 2013, after a public consultation, the CRE sent the government a draft decree on how to value demand-side flexibility on the wholesale markets for electricity and the balancing mechanism.

Pending the publication of this decree and the drafting of the perennial rules, article 14 of the law of 15 April 2013 provides that the operator of the public electricity transmission network organises testing of the device. The launch of the NEBEF (Block Exchange Notification of Demand Response mechanism) experiment was approved on 28 November 2013 by the CRE, after two years of work to which it contributed significantly by its decisions and policies.

It is in this context that the first direct sales on the wholesale electricity market for demand-side flexibility took place, on 8 January 2014. Between 8 a.m. and 10 a.m. in the morning, the company Smart Grid Energy enabled the cutting of some electricity uses proposed by its customers and temporarily reduced their consumption to 33.6 MW.

The experiment is a key step in the opening up of all market mechanisms to consumers, in accordance with the guidelines of the European Commission's energy efficiency directive of 2012. In the long term, consumers will therefore be able to improve the flexibility of their consumption in conditions of participation identical to that of other sources of supply (production groups, imports), whether it be on the balancing reserve market or on the wholesale market.

Since the creation of the balancing mechanism in 2003, the CRE has been fully involved in achieving this goal by gradually lifting barriers to fully exploit this source of flexibility. In 2014, it is therefore continuing to work with all stakeholders to continue this momentum and measure demand-side flexibility in a perennial way on the electricity markets.

THE NEED FOR ADDITIONAL ELECTRICITY, WHICH WILL RESULT FROM THE RECHARGING OF ELECTRIC VEHICLES, HAS TO BE TAKEN INTO ACCOUNT.

The choice of the recharging time as well as the recharge power used will be optimised according to all the restrictions generated on the electricity system.
© ERDF – Abib Lahcäne

1.2.2. Smart grids will help manage the recharging of electric vehicles better

In the framework of the national plan for the development of electric and hybrid vehicles launched in 2009, France set itself the goal of reaching two million of these vehicles in 2020, or approximately 5% of production to date. This means taking into account the need for additional electricity, which will result from the recharging of electric vehicles. The first studies conducted by network operators very clearly show that recharging will be added to other daily uses, often during peak consumption times. This will mean a significant increase in peak electricity consumption. The large-scale development of the electric vehicle could, therefore, have very important consequences economically, due to the costs of strengthening the network required. Also environmentally because of the need for thermal production plants in case of peak recharging or in non-interconnected areas where fossil fuels are in the majority.

The integration of recharging terminals into the network is therefore a central issue for the development of the fleet of electric vehicles. It still raises many legal and technical issues. In order to limit impacts on the electricity system and therefore costs, recharging management devices will be implemented using smart grid technologies. The choice of the recharging time as well as the recharge power used will be optimised according to all the constraints created on the electricity system. These constraints relate, in particular, to the sizing of the private network, the sizing of the public distribution network and the balance between electricity production and consumption. So, it seems important that the user is made aware of these constraints, which in particular means that they will react, directly or via the enslavement of their equipment, with price signals which will be passed on to them.

Before the multiplicity of interconnected elements (public distribution network, private network, recharging terminal, electric vehicle, fleet management tool, etc.), the interoperability of recharging modes and technical equipment for controlling the recharging seems to be a prerequisite to the development of active management for recharging electric vehicles.

2. THE CRE LISTENING TO REGIONS

In the current context marked by debates on energy transition and decentralisation, the role played by the local authorities in the energy system is being redefined. Their close proximity to consumers and the diversity of their powers in the areas of urban planning, housing or even mobility make them key players in the implementation of the energy policy at local level. In this regard, they are able to adopt the integrated approach that smart grids require for the current energy system to evolve.

FRANCE HAS SET ITSELF THE TARGET OF REACHING 2 MILLION ELECTRIC VEHICLES
IN 2020, ABOUT 5% OF PRODUCTION TO DATE

Hearing of Philippe de Ladoucette before the National Council on the debate on the energy transition, 6 June 2013.
© Bernard Suard-MEDDE-MLET

THE CRE AND THE NATIONAL DEBATE
ON ENERGY TRANSITION

As a result of the missions entrusted to the CRE under law, it has actively taken part in conferences held on energy transition that punctuated the national debate in 2013. It took part in the second regional conference on energy transition on 28 February 2013 organised by the Ile-de-France Region "Energy Transition and Decentralisation: Regions, Departments, EPCI (public establishments for cooperation between local authorities) and Municipalities, towards 'Factor 4 Governance'?".

On 27 May 2013, the CRE spoke in Grenoble in the framework of the workshop-debate on the Rhone Alpes Energy Environment "Local authorities, Energy and Networks: What type of governance and means should be used to achieve our objectives?".

On 31 May 2013, at the Energ'îles (Energy for Islands) Exposition it took part in a round table: "How to organise the energy transition of islands?"

On 6 June 2013, the chairman of the CRE was also given a hearing by the National Council of the debate on energy transition, as an important observer of the electricity and gas markets in the framework of the working group on the theme of governance which examined the distribution of responsibilities, and in particular the role of local authorities, the State and Europe in energy transition.

The CRE was also present during the Overseas feedback-summary of regional discussions on energy transition on 10 July 2013.

Finally, the chairman of the CRE took part in the Parliamentary Conference on energy transition on 5 December 2013, chaired by Alain Gest, an MP from the Somme, and Jean-Marc Pastor, a Senator from Tarn.

BRITTANY: INITIATIVES
TO IMPROVE THE SECURITY OF SUPPLY

Peak management: the RTE's call for tenders
Brittany only produces 10% of the electricity it consumes; the rest arrives through a single very high voltage transmission line. In the event of a major incident on the network or consumption peaks, this region is therefore susceptible to power cuts.

In order to secure its electricity supply, the CRE approved the implementation of an experiment for winter 2012-2013 to help lower the participation threshold for capacities from 10 to 1 MW with a call for tenders organised by RTE on the balancing mechanism. The aim of this call for tenders is to provide RTE with electricity generation capacities or demand response flexibility that can be mobilised to reabsorb local congestion on the Brittany network in winter in case of need.

Due to the rules derogating the balancing mechanism approved by the CRE in 2012 and renewed in 2013, new capacities were able to be identified and made available to RTE: 22 MW for the winter 2012-2013, and 33 MW for winter 2013- 2014, of the 70 MW in total retained by RTE.

Besides lowering the threshold for participation in the balancing mechanism, the experiment tests other capacity measurement and certification methods, which will expand the stock of capacities that can be recovered on the markets. The Brittany experiment thus constitutes a laboratory in real conditions to test the necessary developments.
All stakeholders in the sector have welcomed the renewal of the system, after a promising first winter of 2012-2013.

Demand reduction and increase in the local energy production: the Val d'énergie project
The regional council of Brittany launched a call for projects for the creation of local energy loops that the CRE follows with interest. It is, on a regional scale, about combining energy demand management, the development of renewable energies and a closer match between needs and local energy production.

The community of municipalities of Val d'Ille (Ille-et-Vilaine) is implementing the Val d'énergie project (a tool for monitoring and reducing energy consumption, development of photovoltaic installations, methanation and biomass) to create a region with positive energy.
›See interview p.101

2.1. THE CRE ENGAGES IN A DIALOGUE WITH LOCAL STAKEHOLDERS

With the goal of ensuring the proper functioning and development of energy networks, the CRE engaged in a process of exchanging, sharing and feedback on experience with the French regions running smart grid projects.

It therefore put in place a process of coordination and careful consideration in 2010 with all stakeholders concerned on the themes of the evolution of the energy networks toward smart grids, the development of local initiatives and the evolution of the regulation that stems from it. The work of the CRE has involved the creation of a dedicated website, which identifies all the projects in French territory, the organisation of themed forums and, more recently, the organisation of a "tour de France" of a few of the most dynamic regions in the development of smart grids.

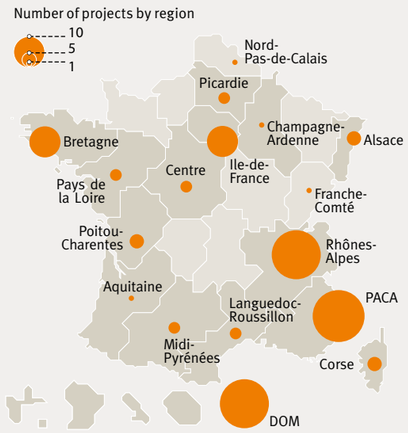
2.1.1. Increase in projects in French territory

There is growing interest among local authorities on the technological innovations that smart grids cover, because the convergence of the different types of grids could improve the quality of the service provided to their users, and cut their costs. That is why projects concerning smart grids are rapidly proliferating in France. The CRE wants to bring these innovative initiatives, which contribute, to modernising the energy system together and make them a success. It has identified more than a hundred projects on its dedicated website http://www.smartgrids-cre.fr.

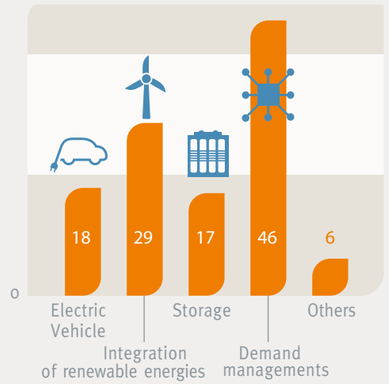
These projects offer experiments on the ground and on different scales that are designed especially to facilitate the insertion of electric vehicles and the integration of renewable energies into the electricity network. Contributions from storage or even demand management devices are also studied in real conditions.

THE CRE HAS LISTED MORE THAN 100 PROJECTS ON ITS WEBSITE
WWW.SMARTGRIDS-CRE.FR

100 smart grid projects in French territory...



... which are experimenting with the features of tomorrow



NB: some projects test several features

2.1.2. The CRE's "tour de France"

Discussions with local authority departments

The CRE conducted a series of interviews with local authority departments in 2013 to find out about their projects, successes and hindrances encountered and to determine their expectations in respect of the regulator. In addition to exchanges conducted with network operators, suppliers, the industry and the academic community, the CRE met the technical services of the cities of Lambesc (13), Courbevoie (92), Paris (75) and Le Cannet (06), but also the urban authorities of Nantes (44) and Dunkirk (59), the cities of Rennes (35), Brest (29) and Lyon (69), the general councils of Seine-Saint Denis (93), Alpes-Maritimes (06) and Yvelines (78), the regional councils of Provence-Alpes-Côte-d'Azur and Brittany and the electricity syndicates of the Loire (SIEL) and the Vendée (Sydev).

Round tables in the region

After having initiated the discussion on the topic of territoriality on 11 October 2012 with the symposium «Energy and territories: a regulation, some regulations», the CRE opened a series of regional round tables in the first half 2013 devoted to the governance of smart energy grids ›see box opposite.

The regulator went to the region to meet local initiatives and discuss all energy topics with elected representatives from authorities strongly involved and smart grid project initiators. The objective of these round tables is to construct future regulation with the territorial authorities so that it accompanies the local innovation capacity.

Fruitful exchanges

These exchanges have shown that authorities that want to invest in smart grid projects, because the latter represent real opportunities for development of their territories (local electricity production, new sustainable and energy efficient districts, development of jobs in new technologies, etc.). The conditions for implementing the various initiatives must however, be improved. It is about determining an economic model for smart grids, among other things. Or even, defining clear governance in energy in the territories to facilitate the implementation of local policies.

In fact, while the competences on this topic are often local, the logic of territorial planning is organised at different levels depending on the subjects (terminals for recharging electric vehicles in urban areas and close periphery, installations of data centres at department level, Linky meters at national level, etc.).

ROUND TABLES IN THE REGION: THE CRE'S "TOUR DE FRANCE"

▸ 28 MAY 2013 – THE ÎLE-DE-FRANCE REGION

Éric Legale, director of Issy Media in the town of Issy-les-Moulineaux, Marie-Christine Servant, director of the Digital Mission at the general council of Yvelines, and Pierre Veltz, chairman and director-general of the Public Development Institution of Paris-Saclay, discussed the projects carried out by their authority and participated in the future-looking reflections that the CRE conducted on the evolution of the powers of the authorities in the field of energy.

▸ 18 JUNE 2013 – THE PACA REGION

Philippe Mussi, regional adviser of Provence-Alpes-Côte-d'Azur, Yves Prufer, deputy director Environment and Energy in the Nice-Côte d'Azur metropolis, and Jean Dieterlen, municipal councillor delegate in charge of new energies at the town hall of Croix-Valmer.

▸ 4 NOVEMBER 2013 – THE BRITTANY REGION

Dominique Ramard, vice-chairman delegate for energy and climate at the regional council of Brittany, Daniel Cueff, regional advisor of Brittany, delegate to urban ecology and land and chairman of the Community of Municipalities of Val d'Ille, delegate for energy and local market gardening, Henri Le Breton, chairman of the Departmental Energy Syndicate of Morbihan, Luc Le, Gurun, mayor of Île d'Houat, and Alain Masson, second deputy mayor of Brest, delegate for sustainable development and general administration, first vice-chairman of Brest responsible for sustainable development and major projects, Annick Bonneville, deputy director at the Regional Directorate for the Environment, Physical Planning and Housing of Brittany.

▸ 10 DECEMBER 2013 – THE RHÔNE-ALPES REGION

Bruno Charles, vice-chairman responsible for Sustainable Development and Future Energy in Greater Lyon, Karine Dognin-Sauze, vice-chairman responsible for Innovation and New Technologies in Greater Lyon, Benoît Leclair, vice-chairman delegate for energy and climate at the regional council of Rhône-Alpes, Stéphane Siebert, deputy in charge of Sustainable Development in the city of Grenoble, and Bernard Laget, Member of the Bureau of the Inter-municipal Energy Syndicate of the Loire.

THIS APPROACH CONTINUED IN 2014 WITH THE ORGANISATION OF A ROUND TABLE IN THE NORD-PAS-DE-CALAIS REGION ON 28 JANUARY. OTHER CRE TRIPS ARE BEING CONSIDERED TO ALSACE, POITOU-CHARENTES, MIDI-PYRENEES AND EVEN TO INSULAR AREAS.

In PACA, the commune of la Croix Valmer (Var) is leading the Janus project to optimise local energy by using renewable energies and hydrogen storage with the goal of becoming energy self-sufficient.
© Fotolia

In addition, authorities want the choices made in the framework of the energy transition to take local characteristics in terms of energy into account.

Finally, with the development of smart grids, a very large amount of data is available (data concerning the network infrastructure, aggregated data on consumption, particularly quality-measurement data). The authorities would like to have access to it to inform their choices in the development of their projects (construction of new districts, renewable energy production facilities, etc.).

2.2. THE TERRITORIES BETWEEN AUTONOMY AND SOLIDARITY

Some French territories are developing local energy loops to become energy self-sufficient. However, staying connected to the public electricity transmission and distribution networks continues to offer many benefits, especially in terms of the security of supply.

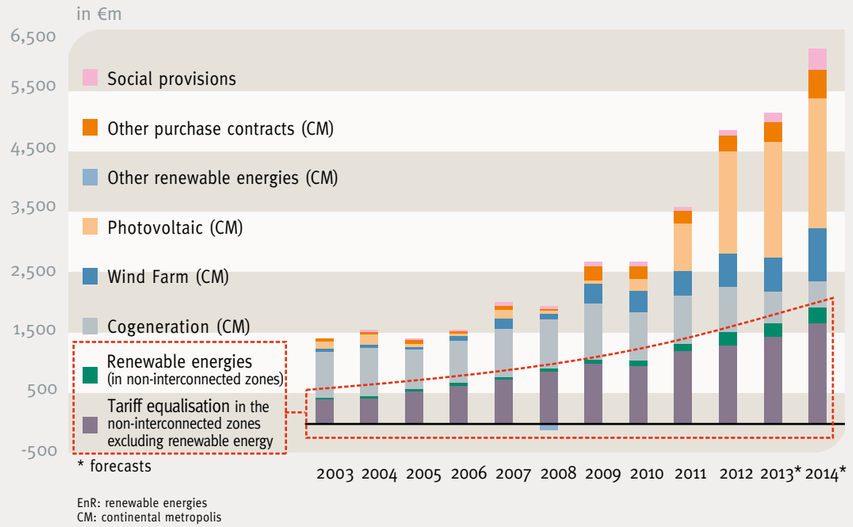
2.2.1. The example of electrical peninsulas: Brittany and PACA regions

The region of Provence-Alpes-Côte-d'Azur and the Brittany region constitute "electrical peninsulas". These territories are only powered by a single very high voltage 400 kV transmission line. In addition, both regions only produce 10% of the electricity that they consume in their region. Lastly, the electricity production sites are very far away from the consumption centres. For these reasons, these regions are exposed to the risk of power cuts in the event of a major incident on the electricity transmission line. They are also more vulnerable to consumption peaks, especially in winter, and are at risk of outages or even a blackout. The CRE has been to both regions and worked with the regional councils on these issues.

Autonomy does not mean self-sufficiency

The autonomy of the territories in the area of energy does not mean self-sufficiency. In fact, these two "energy peninsulas" need to be connected to the national and European electricity and gas networks in order to be constantly supplied with energy, in the case of producing low or even zero or exceptional peak consumption of renewable origin for example. The national transmission networks such as the large European network strengthen the security of supply in Europe and ensure optimal use of the energy produced at any time. The security and the overall stability of the system are based on the solidarity of electricity networks.

Public electricity service load charge developments over a year



EnR: renewable energies
CM: continental metropolis

The projections of population growth and improvement of the standard of living in non-interconnected zones in some way foreshadow the persistence of an upward trend of public service related to the equalisation tariff in these regions.

2.2.2. The specific features of the non-interconnected zones

The five overseas departments, the overseas authorities of Saint-Barthélemy, Saint- Martin and Saint-Pierre-et-Miquelon, as well as three Brittany islands (Molène, Ouessant and Sein) are not connected to the continental and metropolitan electricity network. In addition, Corsica, whose power supply is ensured in part by two underwater cables (SARCO for Sardinia-Corsica and SACOI for Sardinia-Corsica-Italy), is also classified as a non-interconnected zone. These territories have specific characteristics. They are "small isolated energy networks"[1], the operators are not, for example, obliged to separate their production, network operation (transmission, distribution, balancing) activities from their commercial activities.

The electricity consumed in each of these non-interconnected zones must be produced locally and as part of a non-competitive contract. Their island nature, the geographical limitations (situation of the double insularity of Marie-Galante and the Saintes for example, the extreme isolation of the municipalities of the Interior in French Guiana, etc., the relative weakness of port and road infrastructure, etc.) explain a very much higher megawatt produced cost price than that obtained in mainland France. In these areas, the electricity sales tariffs to domestic customers are however identical to those of the continental metropolis. This is the principle of the equalisation tariff, a national solidarity mechanism. The application of this principle makes the operators incur the costs, which are part of the public service expenses, compensation for which is provided by a tax, which is paid by all electricity consumers: the contribution to the public electricity service (CSPE).

The equalisation tariff represents a third of the public service expense, or approximately €2 bn. These expenses are increasing by an average of 15% per year. The projections of population growth and improvement of the standard of living in non-interconnected zones in some way point to the continued upward trend. Energy demand management actions can only decrease the rate of increase › see box above.

1 – In accordance with article 44 of Electricity Directive No. 2009/72/EC, covering networks which have a power consumption of less than 3,000 GWh and which can be interconnected with other networks for a quantity of less than 5% of their annual consumption.

THE ISLAND OF LA RÉUNION: A SPECIAL CONTEXT

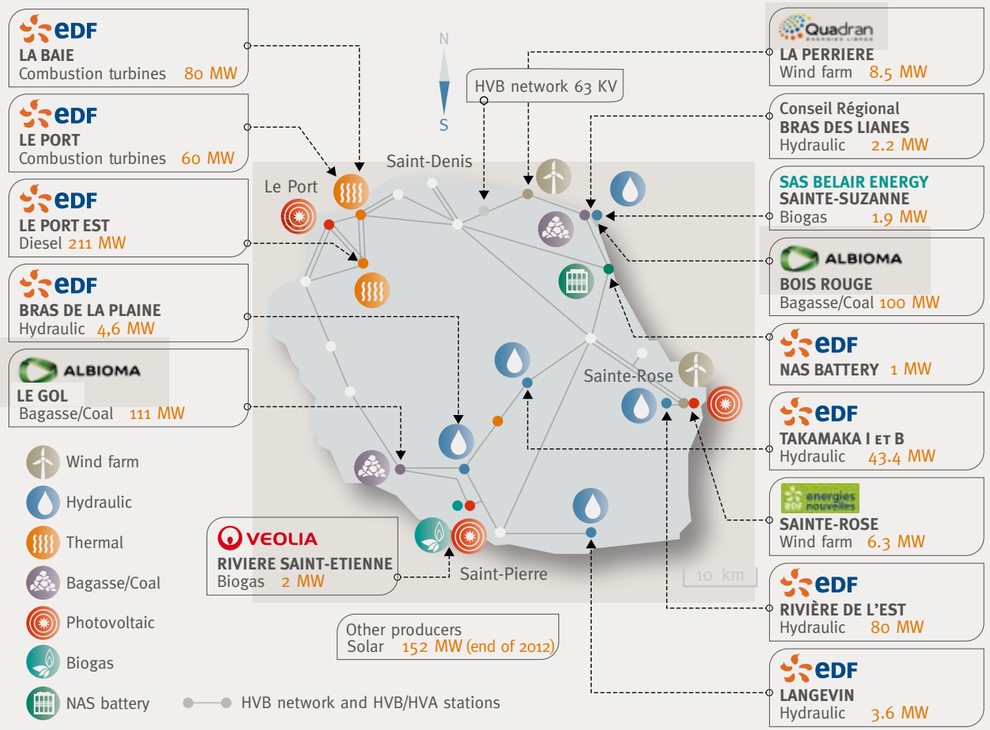
The average unit cost for production in the area is €174/MWh with a significant disparity depending on the means used. The majority of production is ensured by the bagasse/coal power plants, at a cost price of €134/MWh. Combustion turbines at a very high unit cost of €582/MWh carry out cutting-edge production. This cost can be approximated to that of photovoltaic energy, €476/MWh on average, for which there is an obligation to purchase.

The thermal production plant is being redeveloped and extended. The Port power station (211 MW), operated by EDF SEI, will be decommissioned following its replacement at the end of 2013 by a new facility managed by EDF PEI. EDF SEI launched a call for expressions of interest in summer 2013 for the construction and operation of a 50 MW combustion turbine powered, in part, by bioethanol. In addition, the local authorities are seeking to promote the conversion of bagasse/coal power plants into bagasse/biomass power plants. In this setting, the development of sugar cane waste combustion is strongly supported.

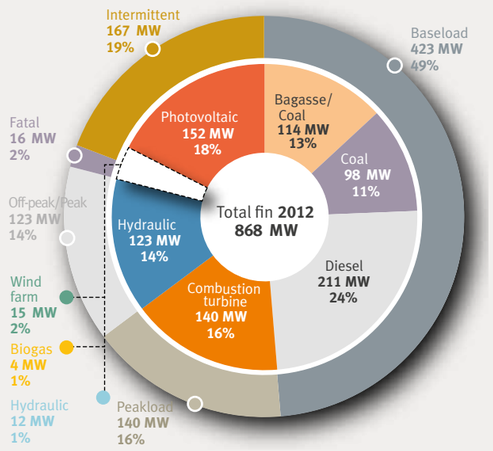
In La Réunion, the threshold of 30% of variable power in the total power flowing through the network has already been reached, which led to the development of the renewable energy plant. In this context, solutions including storage devices, whose MWh cost is much higher, are promoted. The local authorities are also looking to develop all sectors: geothermal (plan for 10 to 20 MW in response to the call for an expression of interest launched by ADEME at the end of 2011), hydraulic, marine energy such as that emanating from the swell (two trial projects for 8 MW) and ocean thermal energy (4 MW), micro-gasification, marine (50 MW) energy transfer by pumping stations (ETPS) or even hydraulic ETPS coupled with a lithium-ion battery (Enerstock project).

A lot of attention is also being paid to energy management. In the short-medium term, SWAC (seawater air conditioning) could replace cold electricity generation. Two projects are being considered in Saint-Denis and Saint-Pierre.

The electricity system on the Island of La Réunion, source EDF SEI



Assessment of the electrical power installed by the end of 2012 in La Réunion



RENEWABLE ENERGIES CONSTITUTE 35 % OF THE POWER INSTALLED ON THE ISLAND OF LA RÉUNION. THEY COVERED 34% OF ENERGY CONSUMPTION IN 2012

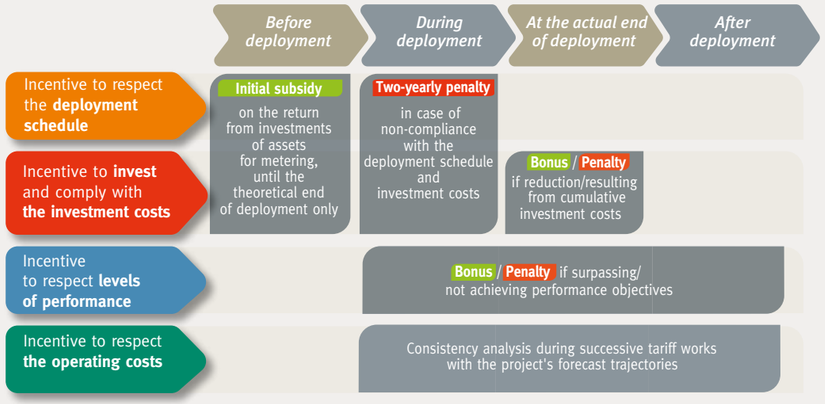
SELF-CONSUMPTION
AND DECENTRALISED PRODUCTION

Reducing flows on the public transmission and distribution networks by producing and consuming your own electricity simultaneously: the subject of self-generation-consumption is being looked into in the framework of the preparation of the law on energy transition. The development of decentralised energy generation means could in fact encourage the growth of self-generation/consumption (defined, in the physical sense of the term, as a reduction of the flows of electricity in injection and extraction on networks) and thereby result in potential economic gains for the networks.

However, these should still be carefully assessed: in the absence of storage, self-production/consumption cannot, in most cases, be total, and the use of the network remains indispensable.
Self-production/consumption (defined in the contractual sense of the term, as the fact of not buying part of your consumption from an electricity provider) is not, however, now, economically advantageous for producers of energy from renewable sources. Given the high level of purchase tariffs in relation to the cost of electricity at retail level, it is actually more beneficial to sell the electricity produced at the purchase tariff and buy it back at the retail price for consumption, rather than consume your own production. The compatibility of the measures to support the power generation from renewable sources with self-production/consumption should therefore constitute an important theme of the working group established by the Directorate-General for Energy and Climate (DGEC), and in which the CRE will participate throughout the first half of 2014.

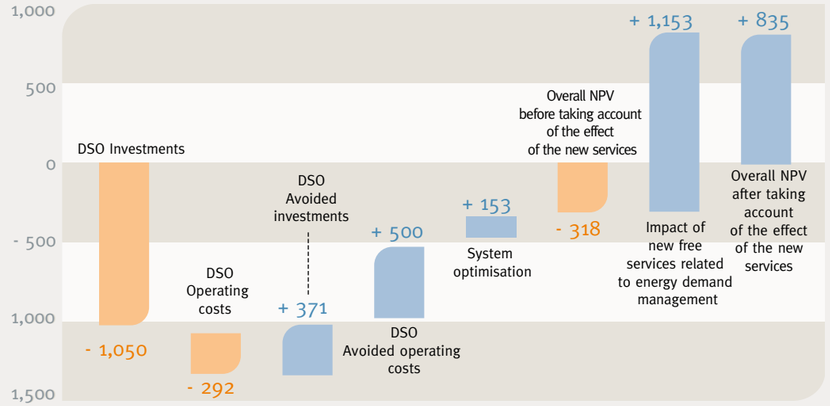
GAZPAR: GRDF'S ADVANCED METERING PROJECT

The incentive regulation mechanism envisaged by the CRE



Source: CRE délibération of 13 June 2013 with guidance on the regulatory framework of GrDF's smart metering system.

Breakdown of the economic value of the Gazpar project by gain and cost items



Source: technical-economic study conducted by the Poyry-Sopra offices in 2013.

3. THE CRE PREPARES FUTURE REGULATIONS

While the energy market is emerging at European level, it is developing, in parallel because of the prospects opened up by smart grids, a renewal of the decentralised action in terms of energy management. This is not without asking questions about the governance of future energy policies: what coordination framework should there be between local stakeholders? How do you avoid creating inequalities between the territories? How do you balance local powers and initiatives with those of the regulator? Future regulations will need to take all of these dimensions into account. In order to prepare for it, the CRE is working on the convergence between the issue of smart grids and its regulation activities. It has set itself the objective of defining guidelines intended for regulated stakeholders and formulating recommendations for the whole industry.

3.1. THE FIRST STEP: THE DEPLOYMENT OF THE SMART METER

The deployment of smart metering systems is a goal set both at European level (Directives 2009/72/EC and 2009/73/EC of 13 July 2009 concerning common rules for the internal electricity and natural gas market, Directive 2012/27/EU of 25 October 2012 relating to energy efficiency) and at French level (articles L. 341-4 and L. 453-7 of the [French] Energy Code). The CRE has been involved since very early on in setting out the regulatory framework suitable for smart metering, since 2000 for electricity and 2009 for gas.

3.1.1. The smart meter for gas: Gazpar

En route to deployment

The year 2013 marked a decisive step for the GrDF smart meters project. On the proposal of the regulator (first resolution of 13 June 2013), the Energy and Consumption ministers in effect indicated on 25 July 2013 that they were "*in favour of the smart meters project being conducted according to the timetable and the stages planned by GrDF*" and that their "*final approval decision [etc.] will/would be made as soon as the results of the call for tenders have enabled confirmation of the financial terms for the acquisition of the equipment and services and the benefit for consumers*". The results of the calls for tenders were made public in February 2014.

The CRE's proposal was based on the update of the technical-economic study from 2011 intended to assess the costs and the long-term benefits of the device for the market and for consumers and on a public consultation carried out between April and May 2013. The study shows that, over a twenty-year analysis period, the economic assessment of GrDF's industrial project presents a net present value (NPV) of -€318 m before taking into account the profit from energy demand management. After integrating this profit, the project becomes very profitable, with a NPV of + €835 m.

A necessary update of the distribution tariff

The confirmation of the launch of the project requires an update of GrDF's ATRD4 tariff and the drafting of a specific regulation framework as planned by a second resolution of 13 June 2013 giving the CRE's guidelines on the regulatory framework for GrDF's smart metering system. In fact, because of the exceptional nature of the project technically, industrially and financially, the CRE considers that GrDF should be made aware of its responsibilities and encouraged by the success of the project in terms of performance and respecting costs and deadlines. It should, in this respect, assume any resulting financial consequences.

In this context, assigning it a compensation award of 200 basis points added to the main compensation rate for metering assets (meters, radio modules and concentrators) commissioned between the start and the end of theoretical deployment over a period of twenty years, within the lifespan of these assets is envisaged.

This compensation bonus would be an element of the overall mechanism incentivising the operator to comply with the project objectives in all its dimensions (timetable, costs, and performance).

BECAUSE OF THE EXCEPTIONAL NATURE OF THE GAZPAR PROJECT TECHNICALLY, INDUSTRIALLY AND FINANCIALLY, THE CRE CONSIDERS THAT GRDF SHOULD BE MADE AWARE OF ITS RESPONSIBILITIES AND ENCOURAGED BY THE SUCCESS OF THE PROJECT IN TERMS OF PERFORMANCE AND RESPECTING COSTS AND DEADLINES

The CRE recalled in its report on the observance of compliance programs and the independence of electricity and natural gas network operators published in September 2013 that the running of the Linky project, which encompasses, among other things, operational management, strategic management, managing the purchases necessary for this project, as well as the entire communication around these aspects, is the sole responsibility of ERDF.
© ERDF – Cédric Helsly

GrDF would benefit from the full compensation bonus if it achieved all the objectives of deadlines, costs and performance of the system. On the other hand, any deterioration of the operator's overall performance would reduce, or even cancel this bonus. A very bad performance could lead, not only to a loss of the compensation bonus, but also to a reduction to the basic bonus for metering assets, or even the cancellation of the bonus beyond certain thresholds. In order to gather the opinions of market players, the CRE launched a public consultation in January 2014 on the regulatory framework specific to GrDF's smart metering project and the associated tariff treatment.

3.1.2. The smart meter for electricity: Linky

Following the CRE's proposal in its resolution of 7 July 2011, the decision to generalise the smart metering system was announced by the Government in September 2011. It was published in the Official Journal on 10 January 2012. The CRE's resolution stressed the importance of a quick launch of the project for the competitiveness of the French industry. ERDF's smart meter project deployment schedule was clarified in 2013. ERDF launched a contract notice at the end of July 2013 for to begin deployment in September 2015.

Although the CRE is happy with the project's progress, which should have already been deployed, it notes that this new timetable does not allow it to meet the target set by European directive 2009/72/EC to have equipped at least 80% of customers by 2020. The CRE recalled in its report on the observance of compliance programs and the independence of electricity and natural gas network operators published in September 2013 that the running of the Linky project, which encompasses, among other things, operational management, strategic management, managing the purchases necessary for this project, as well as the entire communication around these aspects, is the sole responsibility of ERDF. After having received a specific tariff treatment request from ERDF in October 2012 the CRE began work on the regulatory framework that will apply to the Linky project.

3.2. OTHER INITIATIVES TO ADAPT THE REGULATION TO THE DEVELOPMENT OF SMART ELECTRICITY GRIDS

3.2.1. French considerations are based on European work

Considerations on European smart grids currently concern two subjects. On the one hand, the security and confidentiality of data, essential conditions required for the safety of the electrical system and consumer confidence and, on the other hand, the new economic models and changes to the role of network operators.

Security and confidentiality of data

The CRE has been the CEER (Council of European Energy Regulators) representative since the beginning of 2013 for the group of experts from the European Commission on data security and confidentiality. In this capacity, it has actively participated in the formulation of a methodology for evaluating the data protection to be applied within the framework of deployments of smart grid technologies. This work is continuing in 2014 with the development of a compendium of the best available cyber security techniques. In addition, the CRE cooperates with the National Commission for Computing and Liberties (CNIL) on files that present data protection issues.

Economic models

The year 2013 was also an opportunity to resume discussions on the business models of smart grids at European level. The CRE thus contributed to the drafting of the CEER's report presenting the different approaches to regulating smart grids in Europe. This sharing of good practice among regulators is supplemented by the monitoring of several European initiatives, such as the GRID4EU project or even the work of the Joint Research Centre of the European Commission. In 2013, the CRE also continued its involvement in the work related to the interoperability of smart metering systems and smart electrical networks conducted by European standardisation bodies (European Committee for Standardisation - CEN, European Committee for Electrotechnical Standardisation - CENELEC and the European Telecommunications Standards Institute - ETSI). These many activities at European level feed the French work on future regulation supports.

3.2.2. The regulator and those in the field share their thoughts

The issues of financing and investment on the networks (via the tariff for the use of public electricity networks - TURPE), the features and standardisation of smart grids, as well as the framework of experiments are the topics on which the CRE has sought to work more closely with those involved (network operators, suppliers, producers, industrialists, representatives of information and communication technologies, local authorities, energy syndicates, departments, research centres, etc.). In this context, it organised workshops in 2013 to work on several of the central theme such as the insertion of electric vehicles into electrical networks, active demand management, storage development or even business models. To complete this device for exchanging information, the CRE launched a broad public consultation on these themes at the end of 2013 ›see box above.

A PUBLIC CONSULTATION TO DEFINE THE TECHNICAL, ECONOMIC AND LEGAL FRAMEWORK OF SMART GRIDS

The CRE organised a public consultation from 4 November to 8 December 2013 to define the technical, economic and legal framework of smart grids. The consultation was a huge success with a broad panel of stakeholders, who demonstrated their strong commitment to this subject. It received 83 contributions from network operators, energy suppliers, industrialists and syndicate organisations. With 22 responses, the participation of local authorities and their public institutions (including departmental energy syndicates) was very good. The CRE carefully analysed all the contributions and published a summary of responses at the beginning of 2014.

THE CRE BEGAN WORK ON THE REGULATORY FRAMEWORK THAT WILL APPLY TO THE LINKY PROJECT.

A SMART SOLAR DISTRICT: THE CRE IS FOLLOWING THE NICE PROJECT

In 2013, the CRE strengthened its following of smart grid experiments in order to prepare the design or adaptation of the regulation without waiting for the experiments to finish which will take several years.

In this context, it is particularly interested in the progress of the Nice Grid project. This demonstrator of a smart solar district, maintained in the framework of the first investment for the future programme of ADEME, relies on innovative technologies to test the various features of the electricity grids of tomorrow: integration of a high proportion of photovoltaic generation, storage utilisation for different levels of the network, active demand management and optimisation of the generation-consumption balance in a district.

The Nice Grid consortium invited the CRE to its scientific committee, asking it to give its opinion on the technical and scientific choices provided.

The Nice Grid experiment is also the French brick of the European project GRID4EU, which offers a first level of aggregation and analysis of the results of six demonstrators in Europe and whose technological and economic progress the CRE follows with interest. For this reason, it participated in its advisory board which was held on 3 December 2013 in Stockholm.

THE CRE WILL PUBLISH A REPORT EVERY TWO YEARS ON BOTH THE RESOURCES DEVOTED TO INNOVATION ANDON THE RESULTS OF THE WORK CARRIED OUT.

In parallel, the CRE strengthened its monitoring of smart grid projects. In this framework, it organised regular meetings with the various stakeholders and project initiators in order to keep abreast of advances in their experiments. It also works in consultation with the Agency for the Environment and Energy Management (ADEME) on experiments carried out in the framework of calls for expression of interest funded by future investments. All these exchanges provided an opportunity for the various stakeholders involved in the experiments to feedback on their experience. They were then able to share issues that arose locally and to which a response from the public authorities is necessary to advance the development of projects on the ground.

3.2.3. The importance of a regulatory framework conducive to research and development

Electricity transmission and distribution network operators are primarily concerned with challenges related to the integration of renewable energies, the development of new uses of electricity and energy demand management. In this context, the research and development (R&D) work of the network operators will play an essential part. That is why the CRE has put in place, in its tariff decisions relating to tariffs for using public electricity transmission and distribution networks, a framework to support the innovation work by operators. In addition, it will monitor their R&D work and will publish a report every two years on both the resources devoted to innovation and on the results of the work carried out, in order to share them with the rest of the industry.

A large part of the R&D programmes envisaged during the tariff period TURPE 4 by ERDF and by RTE relates to the topic of smart grids. The focus of this programme was made public in the CRE's tariff deliberations on TURPE 4 › see file p.60.

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3 QUESTIONS FOR....

SYLVIE MINGANT,
SERVICE MANAGER DIRECTORATE OF URBAN ECOLOGY CITY OF BREST (BREST MÉTROPOLE OCÉANE)

"THE OWNERSHIP OF ENERGY ISSUES BY THE CITIZEN IS AN ESSENTIAL CONDITION FOR THE PROJECT' S OVERALL SUCCESS."

What initiatives and projects are being implemented in your region?

Brest Métropole Océane (210,000 inh.) is the most integrated urban community in France It will be a fully functioning metropolis from 1 January 2015, which will enable it to further increase its competences. Energy is one matter that is fully accounted for in its public policies. The «Brest rive droite» energy loop is one example of ambitious initiative in the field. It aims to find an alternative to the strengthening of the electrical network linked to urban densification while developing energy savings, renewable energies and smart networks. One of the main objectives is to reduce or smooth out consumption of electricity and fossil fuel energy during the peak period. Therefore, it is very clearly a testing ground in the field of smart networks. To achieve this, we are implementing several innovative actions. A prior study has thus been carried out in the framework of the future eco district of Les Capucins, which will begin by constructing «smart ready» buildings. In the long term, the tools deployed in the buildings will have to enable smart management of consumption and production facilities in the district.

Furthermore, as part of the redevelopment of the former workshop of the arsenal in Brest on the same site, the buildings will be equipped with solar photovoltaic panels. One of these sites will consume 90% of its production and will reinvest the remaining 10% in the network, which is consumed by the neighbouring multiplex cinema. Finally, we support the deployment of residential demand response.

Your community has made significant advances with ERDF and GrDF in terms of obtaining consumption data to plan its energy projects. Can you tell us more about this?

Energy companies, as well as development companies and the local energy agency are close partners who have been working closely together since the start of this local energy loop project. We are conducting essential collaborative work that offers each partner a multiple energy vision. This is achieved through operational agreements concluded with ERDF, GrDF and Dalkia Nord Finistère, which enables us, for example, with ERDF, to find out consumption data by sector. The energy company has analysed the potential for reducing electricity consumption by replacing the energy provided by the heat network. It has also led us to amend the initial electrical connection of our future Arena room to relieve the existing network.

In addition, as the authority has chosen to favour gas combined with solar thermal or wood for heating, GrDF has facilitated the deployment of its network to supply another development project of 1,700 housing units. The gas network operator and Brest Métropole Océane has undertaken a joint thermography operation by drones to raise awareness among consumers on energy losses. This ownership of energy issues by the citizen is an essential condition for the project's overall success. Finally, we have a thermal energy air storage from the heat network project with Dalkia Nord Finistère (85% from waste recovery on the university site).

How have your discussions with the CRE enabled you to move forward on these matters?

The discussions with the CRE at various stages of the local energy loop project have enabled us to reinforce our guidelines especially for smart grids. This innovative sector is ignored and we need a resource centre to listen that can offer strongly support for our policies. In addition, the interest of the CRE in the project very clearly legitimises our actions internally and in respect of our partners.

CONSUMERS

A COMPLEX **ENERGY MARKET TO GRASP**

Individuals and small businesses are nevertheless still very hesitant to take the step of changing supplier. The inadequacy of their information explains in part the very slow pace of the opening up to competition.

77% **19%**

OF THE CONSUMPTION

OF RESIDENTIAL SITES — OF NON RESIDENTIAL SITES

IS SUPPLIED AT REGULATED TARIFFS

REGULATED TARIFFS

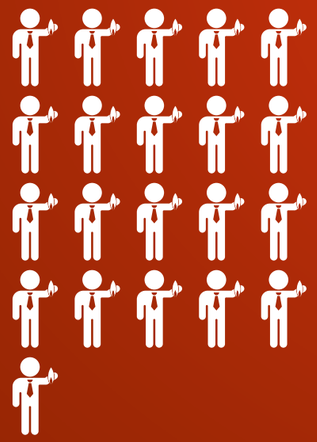
proposed by **1 HISTORICAL** SUPPLIER AND **22 LOCAL**

75% OF SITES

25% OF SITES

MARKET OFFERS

proposed by **21 SUPPLIERS**



Gas retail market

AT 31/12/2013

Electricity retail market

AT 31/12/2013

REGULATED TARIFFS

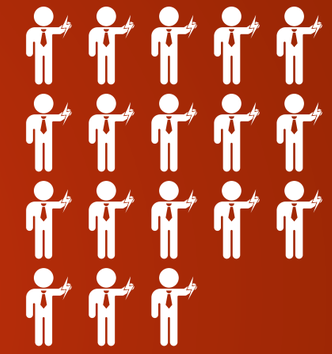
proposed by **1 HISTORICAL** SUPPLIER AND **160 LOCAL**

91% OF SITES

9% OF SITES

MARKET OFFERS

proposed by **18 SUPPLIERS**

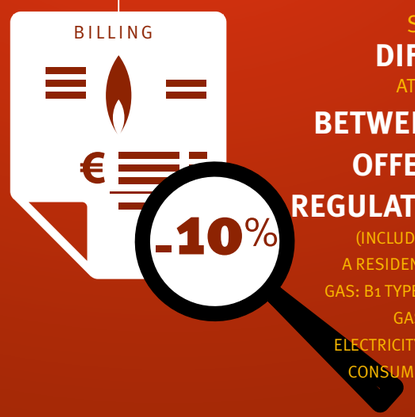


91% **58%**

OF THE CONSUMPTION

OF RESIDENTIAL SITES — OF NON RESIDENTIAL SITES

IS SUPPLIED AT REGULATED TARIFFS



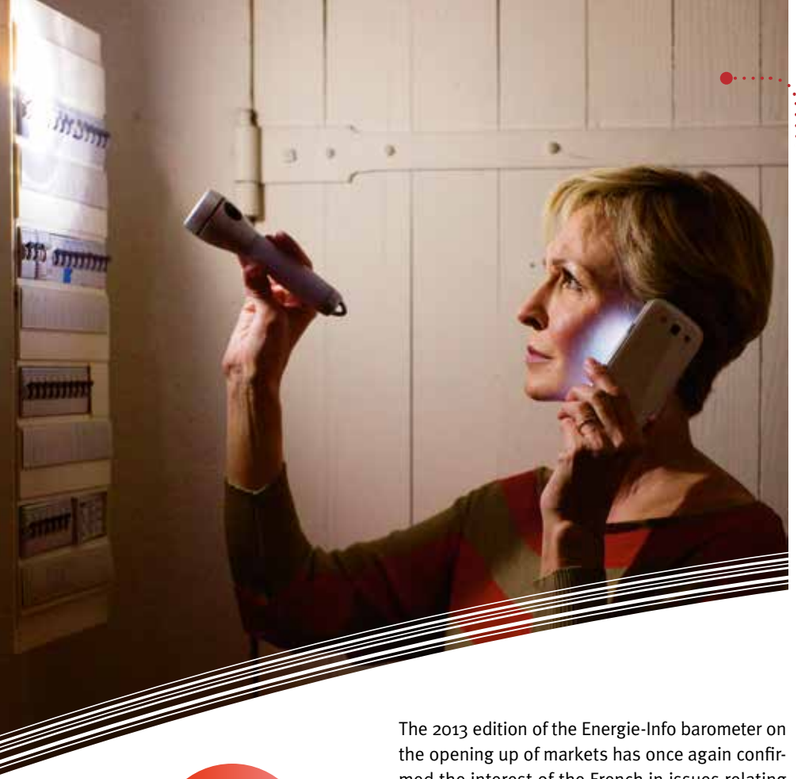
SHARPER **DIFFERENCE** AT 31/12/2013

BETWEEN A MARKET OFFER AND THE REGULATED SALE TARIFF

(INCLUDING ALL TAXES) FOR A RESIDENTIAL TYPE CUSTOMER

GAS: B1 TYPE CUSTOMER WHO USES GAS FOR HEATING

ELECTRICITY: AVERAGE CUSTOMER CONSUMING 2,400 KWH/YEAR



Consumers have a very vague impression of the practical methods of changing supplier.
© EDF – Julia Baier

The 2013 edition of the Energie-Info barometer on the opening up of markets has once again confirmed the interest of the French in issues relating to energy consumption. While the economic crisis continues, almost 8 homes out of 10 say that energy consumption is an important concern for them because of the rising costs of electricity and gas.

Households and small businesses are nevertheless still very hesitant to take the step of changing supplier. The inadequacy of their information explains in part the very slow pace of the opening up to competition. Although initiatives are being taken to encourage them to find out about market offers, the regulated sales tariff remains hugely dominant.

CONSUMERS ARE STILL VERY PASSIVE IN THE FACE OF THE OPENING UP OF THE MARKET. ONLY

17%

OF PEOPLE POLLED HAVE MADE AN EFFORT TO INFORM THEMSELVES

Source: Energie-Info 2013 barometer published by the CRE and the national energy ombudsman, based on a telephone survey of a representative sample of 1,503 French households.

1. THE MARKET IS EXPERIENCING A GRADUAL OPENING UP SLOWED BY A LACK OF INFORMATION FOR CONSUMERS

Six years after the actual opening up of the energy market to domestic consumers, the 7th annual Energie-Info barometer on the opening up of markets indicates that consumers' knowledge of the energy market is insufficient, despite a slight improvement. Therefore, 53% of the French know they can change electricity supplier and 55% gas supplier, which is an increase of 5 and 7 percentage points respectively compared to 2012.

This progression is all relative. There are still very significant differences depending on the socio-professional category of the head of household(1). The PCS+ (higher professions and socio-professional categories) are actually well informed, 64% for electricity and 65% for natural gas, while among PCS- (lower professions and socio-professional categories) the figure is 51% for electricity and 52% for natural gas. As for pensioners, their information on the subject is even more limited, with only 47% for electricity and the same for natural gas.

WHY OPEN THE ENERGY MARKETS UP TO COMPETITION?

The construction of an integrated European market for energy stems from European decisions(1) within the framework of the 'single market', which provides for the free movement of goods, persons and services in 27 countries in Europe. The transition of several national markets independent of each other into a single market is intended to improve the competitiveness of the energy sector, by streamlining production, transmission and marketing, for the benefit of consumers. The main objective of this policy is to ensure the security of energy supply at an affordable price for all consumers, in respect of environmental protection and the promotion of healthy competition (see File 1 - Markets, Section 2.1.).
In this context, the sectors of production, transmission, distribution and marketing of electricity and natural gas have been separated into distinct activities. Competition was introduced at the beginning and end of the chain. As regards marketing (energy supply), consumers can put several suppliers in competition and choose the offer that suits them best, in terms of tariffs and services.

1 – European Directives of 19 December 1996 and 26 June 2003, transposed into French national law by the laws of 10 February 2000 and 9 August 2004 for electricity and European directives of 22 June 1998 and 26 June 2003, transposed into national law by French laws of 3 January 2003 and 9 August 2004 for gas.

The survey by Energie-Info also shows that consumers have a very vague impression of the practical methods of changing supplier. For example, only 28% of homes know that EDF and GDF SUEZ are two separate and competing companies. In addition, 70% of those polled believe, wrongly, that in case of changing supplier, it is the supplier who reads the meter. This error reveals the widespread confusion between gas or electricity supplier and distributor. In fact, only 63% of those polled recognise ERDF or GrDF knowing that they are distributors, 26% believe that they are suppliers and 11% were unable to describe on their role.

The survey also showed that the consumer is still very passive in the face of the opening up of the market. Although 54% say they are well informed, this impression in reality conceals a lack of curiosity. Only 17% have made an effort to inform themselves. Among domestic customers, 23% received offers for gas and 8% for electricity. This decision is primarily motivated by looking for a more competitive tariff and benefits of more interesting services. Moving and disputes with suppliers are also reasons for changing.

Although considered favourably, the opening up of the energy markets is not yet perceived as offering benefits to consumers. It clearly seems that price, quality of services and improved educational information are indispensable tools for changing their still very passive attitude.

The Energie-Info survey shows that consumers have limited knowledge of the regulated sales tariffs themselves. Only 38% of respondents said they had heard of it. They also gave an often incorrect definition of it. 81% of them know the public authorities fix them. However, 45% still think that all suppliers offer them.

On the other hand, 65% of respondents know that after having left the regulated tariffs, it is possible to return at any time. They are predominantly perceived to be the same price as market offers (35%) or less expensive (31%). The remaining 23% said they are more expensive. These inaccuracies do not make consumers skip the step toward a market price.

1 – The higher professions and socio-professional categories (PCS+) include executives, higher intellectual professions, intermediate professions and supervisors. The lower professions and socio-professional categories (PCS-) include employees, service staff, workers and agricultural labourers.

The website Energie-Info recorded 934,442 visits in 2013, that is an increase in visits of more than 57% compared to 2012.
© EDF – Julia Baier

THE OBSERVATORY OF RETAIL MARKETS THAT THE CRE PUBLISHES EVERY QUARTER PROVIDES A CLASSIFICATION ACCORDING TO THEIR PRICE OF SUPPLIERS' MARKET OFFERS, FROM THE LOWEST TO HIGHEST.

2. INITIATIVES ARE BEING TAKEN TO DEVELOP THE CAPACITY OF CONSUMER CHOICE

The consumer now has various options. This will be especially true with the forthcoming deployment of interconnecting meters. The latter will enable suppliers to bill actual consumption and not estimated consumption established based on historical metering. It will also enable them to construct offers and services increasingly better suited to consumers' needs, which are changing because of the new increasingly numerous uses. Consumer choice will be decisive in changing way of life and lowering bills. To cope with all these developments, consumer information is essential to fully participate in the market. Initiatives in this regard remain ad hoc however, and would benefit from being relayed by a more widespread information campaign.

Consumer associations support domestic customers on a daily basis through advice or assistance to resolve disputes.
© EDF – Nicolas Buisson

2.1. EDUCATIONAL EFFORTS ARE BEING UNDERTAKEN BY THE CRE AND THE NATIONAL ENERGY OMBUDSMAN

The CRE has undertaken, in collaboration with the services of the national energy ombudsman, to help consumers navigate an increasingly complex market. Energie-Info.fr, their shared "general public" website, provides consumers, domestic and business with practical information tailored to their different approaches. A comparator of offers, for example, helps them to choose the most attractive offer according to their energy consumption. It is aimed at domestic customers and professionals who subscribe to power less than or equal to 36 kVA or consume less than 300,000 kWh of natural gas per year.

In addition, in the observatory of retail markets that the CRE publishes every quarter, suppliers' market offers are classified according to their price, from the lowest to highest. It shows that, on the natural gas market, alternative suppliers offer contracts whose price is substantially lower than the regulated tariff. In 2013, the cheapest market offer was on average less than 10%[2] (approximately €120 a year) of the regulated sale tariff for a B1 type customer who uses gas for heating. For electricity, the cheapest market offer was on average less than 4%[3] (approximately €16 a year) of the regulated sale tariff for an average customer consuming 2,400 kWh/year.

The end of the regulated sales tariffs for professionals also increases the need for information for the consumers concerned. The CRE will participate in work aimed at adapting the comparator of offers to their needs. In parallel, the CRE has begun to conduct information campaigns in federations and businesses groupings on this matter.

2.2. CONSUMER ASSOCIATIONS PLAY AN IMPORTANT PART

Consumer associations support domestic customers on a daily basis through advice or assistance to resolve disputes. That is why, in 2005, the CRE, whose general task is to ensure the proper functioning of the market for the benefit of the end consumer, wanted the associate them with its work. Consumer associations contribute greatly to the success of the consultation work and take their rightful place in the CRE's consultation process. They therefore share their experience in the field and in return increase their knowledge on the effective functioning of the market. The complexity of some issues and the asymmetry of information with operators in the sector involve reinforcing relations with consumer associations. In this regard, the CRE regularly organises meetings with them on topical themes and developments on the electricity and natural gas markets.

In addition, with the end of the regulated sales tariffs for some professional consumers, they could see their representation expanded within the working groups of the CRE.

"The only credible comparator is that put online by the national energy ombudsman and the CRE."
Alain Bazot, chairman of the UFC-Que Choisir consumer association, Décryptages n°39

2 – Whether offers with prices indexed to the regulated sale tariff or fixed-price offers.
3 – These offers are assessed at the end of each quarter from the annual amount of the bill.

JOINT ENERGY BUYING:
THE EXAMPLE OF THE UNIHA

UniHA is the co-operative network of grouped procurement of 58 French public hospitals. It became the first French public buyer, making €1.885 bn of purchases for its members in 2012 and generating €63 m of profit on purchases.

At the end of September, it was announced that the UniHA grouping, associated with the Ugap (Union of Public Purchasing Group), the Ministry of Defence, members of the Fepah (Federation of Public Hospitals) and the French National Authority for Health, had notified seven suppliers of framework agreements: EDF, Eni, ES Energie, Gas Natural Fenosa, Gaz de Bordeaux, GDF SUEZ and Tegaz.

To date it is one of the most important calls for tenders in natural gas, which has been published. It represents a volume of 2 TWh for around a hundred sites.

The joint enegy buying notified the suppliers selected of the framework agreement on 23 September 2013.

The subsequent contracts, putting the suppliers selected in the framework agreement in competition, and the selected suppliers were published between October and December. Actual delivery began on 1 January 2014.

This operation should yield a profit (at the framework agreement stage) of at least €12 m per annum compared to the level of the regulated tariff (that is -13%) with the bill for the public hospitals concerned falling from €94 m a year to €82 m a year.

2.3. CONSUMERS ARE GETTING TOGETHER TO BUY THEIR ENERGY AT LOWER PRICES

Consumer associations had rejected the complete opening up of the market in 2007 due to the inability for consumers to return to regulated sales tariffs once they had exercised their right.

Since then, the NOME law of 7 December 2010 contributed to changing this perception by incorporating the principle of reversibility, i.e. the possibility for a company or a domestic customer to leave the regulated tariffs to sign a contract with an alternate supplier and then return to the regulated tariff of the former operator. One consumer association, the UFC-Que Choisir, has implemented a gas grouped purchase action in the form of reverse auctions to enable domestic customers to obtain a significantly lower tariff. After a call for tenders launched in July 2013 among domestic suppliers in order to "*boost competition*", this approach, which was completed in January 2014, has resulted, according to the association in 70,000 subscriptions. These consumers have therefore been able to benefit, by changing supplier, from a reduction of more than 15% compared to the regulated tariff of November 2013.

The CRE welcomes the success of this operation. It regrets, however, that only one supplier has agreed to participate. This example, which has received a lot of attention from the media, will significantly increase competition on the gas market. Large consumers may also choose to pool the supply of their sites by joining together. UniHA, a grouped buying network of public hospitals in France, associated with other organisations, signed framework agreements with seven suppliers in September 2013, for a volume of 2 TWh › see box above.

Finally, more and more customers will be directly supplied on the wholesale market by optimising their supply, without going through an intermediary.

A CONSUMER TODAY, "A PARTICIPATING CONSUMER" TOMORROW,
THE VISION OF THE EUROPEAN ENERGY CONSUMER IN 2020

The consideration and involvement of the consumer in the European dialogue on energy are at the heart of the CRE's concerns. Within the Council of European Energy Regulators (CEER), it chairs the working group on consumers and the retail market and is fully involved in discussions at European level to make the market more favourable in their respect. The CRE has played a leading role in the formulation of the Vision 2020 for European energy consumers of the European Bureau of Consumers' Unions (BEUC) and the CEER.

The place of consumers in the European energy legislation

European legislation on the opening up of the electricity and gas market offers all consumers the freedom to choose their energy supplier. To «guarantee the full effect of consumer protection measures» major responsibilities have been entrusted to the national regulatory authorities in the framework of the Third Energy Package. They shall ensure that the rights of consumers to benefit from a competitive and efficient market in the field of energy are guaranteed within the member states.

European consumers are at the heart of the concerns of national regulators, because they are the first to feel and benefit from the advantages related to the opening of the energy market. Creating and maintaining a proper dialogue, in which the consumer would be inclined to participate more, is one of the priorities set by the EU for 2020 and which the CRE, as regulator, actively participates in.

It is in this context that the Declaration of the Vision 2020 for European energy consumers was adopted on 13 November 2012 in London by the national energy regulators represented in the CEER and all the consumer associations of the BEUC.

Consumer participation in the European energy dialogue today and tomorrow

This joint declaration defines the major principles of reliability, affordability, simplicity and protection and accountability on which relations between the energy industry and consumers should be built from now onwards.

These principles, which have been widely supported by national associations and European organisations bringing together businesses, consumers or ombudsmen in the energy sector, setting out to guarantee access to energy supply, simplify administrative procedures and clarify prices in consumption bills.

- ***Simpler administrative procedures***

The European legislation adopted in the framework of the Third Energy Package said that a change of energy supplier must take place within a period of three weeks. These deadlines were already respected in France, well before the implementation of the Third Energy Package and should be shortened in the future. The objective would be to allow consumers to change supplier in 24 hours as is possible today with telecommunication operators. The simplification of the administrative procedures also apply in the event of a dispute with the energy supplier, on the request by the consumer to the regulator or the ombudsman, as is the case in France.

- ***Clearer and more transparent information on the characteristics of offers***

French consumers already benefit from the option of comparing the offers proposed by the various energy suppliers on energy-info.fr In the future, new information may appear in bills. For example, «green offers» could allow consumers to easily and reliably find out what energy sources are used by suppliers, what is the cost indicated in the bill and what is the amount of CO_2 emissions.

- ***More confidence and involvement***

The security of access to the energy supply is one of the safeguards on which the European internal market is built. Confidence in networks should be accompanied by the increasing involvement of the consumer. The development in the future of smart meters should strengthen their participation, in particular by enabling for example consumption to be managed and to bills to be managed. The building of confidence should be continued by monitoring, as is required by existing European legislation, to ensure the confidentiality and security of the data collected from consumers.

FACED WITH THE DIVERSITY OF COMMERCIAL OFFERS,

INFORMATION FOR CONSUMERS IS ESSENTIAL

Fixed-price offers

In the residential customers segment, fixed-price offers have increased sharply since 2012, especially for gas. The majority of the natural gas offers proposed to a customer consuming 17,000 kWh/year are fixed-price offers (13 offers out of the 19 proposed)[1]. In electricity, 10 offers out of the 21 proposed to a customer consuming 8,500 kWh/year are at a fixed price[2].

The prices excluding tax of fixed-price offers do not change for the term of the contract, which is generally for one or two years. These offers differ from indexed offers, whose price follows the developments of regulated sales tariffs or other indices of wholesale markets specified in the contract.

Fixed-price offers therefore provide price stability for the term of the contract. Residential customers will keep the option to terminate their fixed-price offer contract at any time to return to regulated sales tariffs, even before the end of the contract.

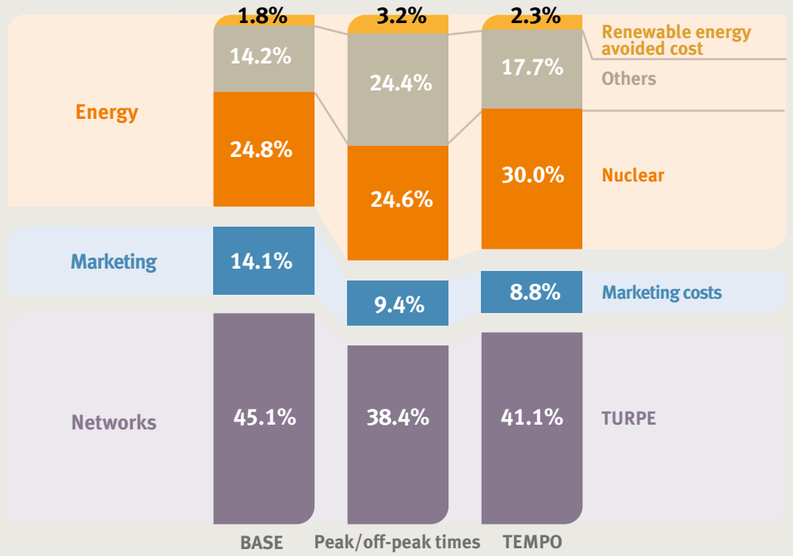
Some fixed-price offers are competitively priced.
For electricity, the best offer for a customer consuming 8,500 kWh/year is 4% lower than the regulated tariff to date.
For gas, it is 10% lower than the regulated tariff for a customer consuming 17,000 kWh/year.

Dual-fuel offers

Some of these offers are a combination of an offer at the regulated tariff for one of the two fuels and a market offer for the second or two market offers grouped together.
Appealing for consumers who want to simplify their supply with a single provider, or even a single contract and a single bill for both fuels, they can be misunderstood.
Some consumers sometimes ignore that by opting for these dual-fuel offers they leave the regulated tariff, as the national energy ombudsman has noted on several occasions.

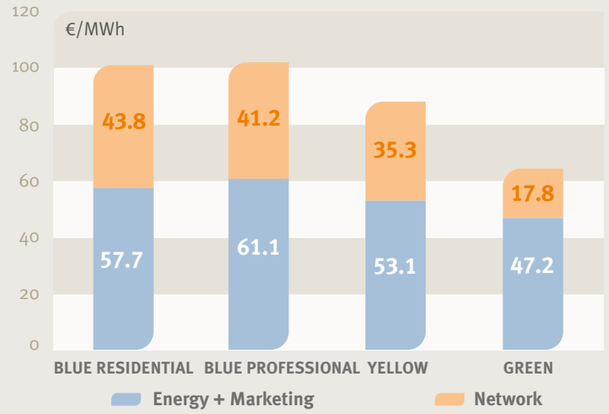
1 – Comparator of offers source energie-info.fr 31 December 2013 for a residential customer living in Paris with option B1 for natural gas.
2 – Comparator of offers source energie-info.fr 31 December 2013 for a residential customer living in Paris with the Peak/Off-peak times and 9 kVA of electricity power subscribed to.

Theoretical components of a bill excluding tax at the regulated tariffs for customers with a blue residential tariff on 1 August 2013



Source: EDF – Analysis: CRE

Level of regulated sales tariffs for electricity excluding taxes due to the movement of 1 August 2013



Source: EDF

3. CALL TO REMOVE BARRIERS TO THE DEVELOPING COMPETITION

The law relating to the new organisation of the electricity market (NOME law) and the law on consumption spell the end of regulated tariffs for business customers and open new possibilities for alternative suppliers to develop their market shares.

3.1. INCREASING COMPETITION HAS BEEN SLOWED BY SAVING FROM REGULATED SALES TARIFFS

The level of the regulated tariff remains the economic reference point from which suppliers build their commercial offers. So that they are attractive and competition develops, the regulated tariff must be "contestable", i.e. the alternative suppliers who supply ARENH and the wholesale market are able to offer their customers competitive offers specific to them. This contestability has improved with the recent increases of regulated tariffs.

3.1.1. Construction of tariff and breakdown of the electricity bill

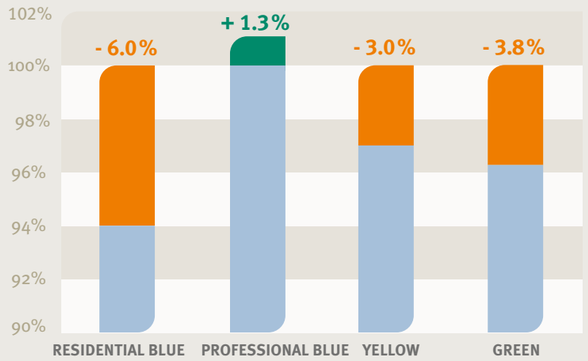
The regulated tariffs for the sale of electricity are established so that they cover the production costs, supply costs, the cost of using public transmission and distribution networks and marketing costs that EDF and non-nationalised distributors support to supply their customers, as well as a reasonable margin[4].

On 25 July 2013, the CRE issued its opinion on the tariff movement from 1 August 2013, which provided for an increase of 5% on average for the blue tariffs, 2.7% on average for the yellow rates and 0% on average for the green tariffs. Although this tariff movement does not allow the accounting production costs to be covered as assessed by the CRE for the year 2013, it significantly improves the contestability in average of tariffs.

4 – Article L. 337-6 of the [French] Energy Code.

COVERAGE OF COSTS BY REGULATED SALES TARIFFS AND CONTESTABILITY OF THESE ELECTRICITY TARIFFS

Coverage of EDF's accounting costs by the residential blue, professional blue, yellow and green tariffs on 1 August 2013



Source: EDF

The regulated sales tariffs for electricity must at least cover the accounting production costs of historical operators.

The EDF's production and marketing costs considered are the estimated costs of the year 2013 as estimated by the CRE. The delivery costs are calculated from the TURPE tariff grid in force on 1 August 2013.

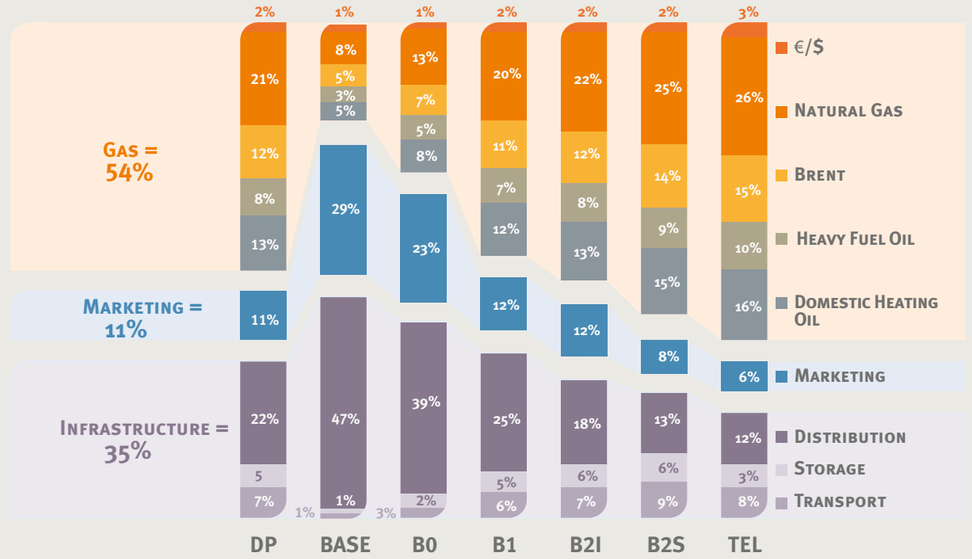
Contestability of the regulated rate for the sale of electricity

	Increase to be added to the regulated sale tariff in force on 1 August 2013 to ensure its on average contestability				
Market price	€46/MWh	€48/MWh	€50/MWh	€52/MWh	€54/MWh
Residential blue	-0.3%	0.2%	0.7%	1.2%	1.6%
Professional blue	-5.5%	-4.9%	-4.2%	-3.5%	-2.8%
Yellow	-1.7%	-1.1%	-0.3%	0.3%	1.0%
Green	-0.5%	0.3%	1.2%	2.0%	2.8%

To the extent that alternative suppliers are supplied in part with the ARENH and for the rest of the electricity markets, the level of market prices has affected their ability to propose offers to compete with the regulated sale tariff.

As a result of the increase from 1 August 2013, regulated tariffs are contestable or close to contestability. The price of the ARENH fixed at €42/MWh in 2013 is lower than the average price of electricity, which is €52.5/MWh peak rate. This contestability should improve in 2014 because of the fall in prices on the energy markets.

Components of a bill excluding taxes with regulated tariffs for the sale of natural gas of GDF SUEZ on average over the year 2013



Source: EDF – Analysis: CRE

3.1.2. Construction of tariff and breakdown of the gas bill

The law provides that "*regulated tariffs for the sale of natural gas covers the costs of the natural gas supply and costs excluding supply. They include a variable component linked to actual consumption and a fixed proportion calculated from the fixed supply costs of natural gas*[5]".

The consumer's bill at the regulated tariff is broken down into four major items: material (gas purchase cost), infrastructure, marketing and taxes. The material component is calculated from a formula indexed to the price of natural gas on the wholesale market, a basket of petroleum products and the euro/dollar exchange rate. The infrastructure component is calculated from access tariffs to the transmission and distribution networks defined by the CRE and non-regulated tariffs for using storage. The marketing component is obtained from the difference between the total bill excluding taxes at regulated tariffs and the two preceding terms[6].

3.1.3. The regulated tariffs for the sale of electricity and gas will be abolished for businesses

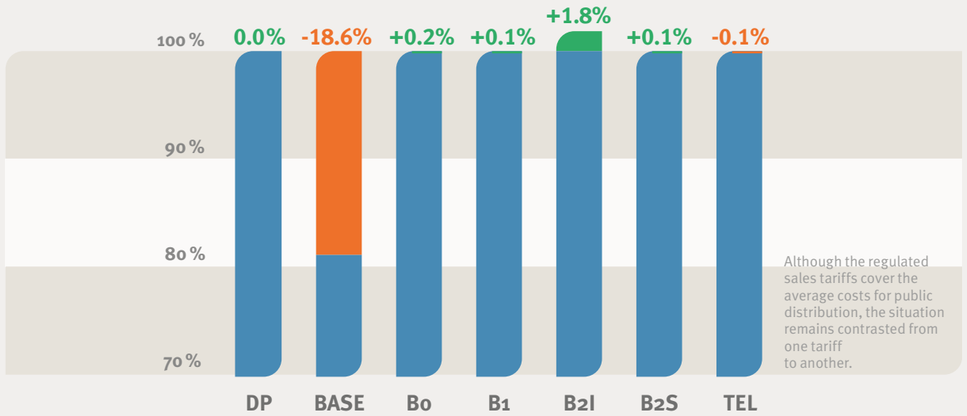
Law No. 2014-344 of 17 March 2014 on consumption provides that regulated tariffs for sale to non-residential consumers will be progressively abolished from 2014. For gas, the abolition will take place in stages, depending on the type of consumer. The relevant contracts will actually be terminated on the deadlines mentioned in the table › see box p. 116.

The consumer will therefore have signed a new market offer contract with a supplier of their choice beforehand. A consumer who has not subscribed to a market offer upon expiry will be deemed to have accepted the contractual conditions of a market offer that their supplier will have sent to them three months before the expiry date and that they will automatically switch to.

5 – Article L. 445-3 of the [French] Energy Code.
6 – The fact of undercovering costs for some tariffs, the marketing component of the rates presented may be lower than GDF SUEZ's real marketing costs.

COVERAGE OF COSTS BY REGULATED SALES TARIFFS AND CONTESTABILITY OF THESE NATURAL GAS TARIFFS

Coverage of costs, including a reasonable trade margin, by tariff at 1 July 2013

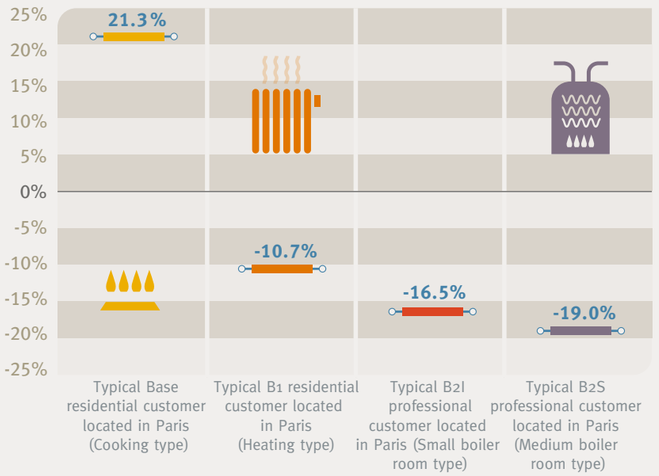


Source: GDF SUEZ – Analysis: CRE

The CRE has carried out a theoretical analysis of the costs incurred by suppliers in the framework of constructing their free offers for gas. It has compared them with the costs incurred by GDF SUEZ for the sale of gas at the regulated sales tariffs[7]. The results presented below indicate that the costs incurred by alternative suppliers to supply a Base customer are higher than the costs included in the regulated sales tariffs of GDF SUEZ. Therefore, these rates are not contestable.
This is explained by the under coverage of the Base tariff, as the above graph highlights. In contrast, the results indicate that the other rates studied are

7 - Not the costs actually incurred by GDF SUEZ for each of the options of the regulated rate.

Level of costs (gas, marketing and infrastructure costs), estimated according to different procurement strategies, supported by an alternative supplier providing different customer types (located in Paris) in relation to the regulated sales tariffs of GDF SUEZ in force (excluding all taxes) from 1 April 2012 to 31 March 2013



Level of costs (excluding all taxes) by taking the average cost of supply according to the various purchase configurations of the market envisaged.
Standard deviation from the average according to the various supply scenarios on the market envisaged.

Source: GDF SUEZ – Analysis: CRE

For electricity, from 1 January 2016, all customers purchasing more than 36 kVA of power - corresponding to the yellow and green tariffs - will not benefit from more regulated tariffs for the sale of electricity. Article 25 of the law on consumption extended the provisions provided to accompany the abolition of regulated tariffs for the sale of natural gas to electricity.

The CRE supports the process to end regulated tariffs

The end of the regulated sales tariffs represents a significant move toward a real opening up of the professional market to competition. It requires legislative and regulatory support.

The law does not address the important question of suppliers' access to customer data currently provided with regulated tariffs. This situation favours incumbent suppliers. The CRE has applied to the Competition Authority for an opinion on this subject.

It is essential that no technical obstacles impede the process of leaving regulated sales tariffs and that all stakeholders share the practical procedures. The consultation bodies placed under the aegis of the CRE will need to consider the procedures that will apply at the time of leaving the regulated sales tariffs and propose the necessary changes once these deadlines have passed. A dedicated working group has been set up on the communication and information procedures for the consumers concerned. The first proposals are expected before the end of the first half of 2014.

The CRE has also undertaken information actions toward federations and clustering of firms and work on creating information and offer comparison tools in partnership with the national energy ombudsman.

3.2. THE ARENH MECHANISM SHOULD COME TO AN END IN 2025

The law on the new organisation of the electricity market (NOME law), passed on 7 December 2010, and its implementing decree of 28 April 2011 introduced the ARENH mechanism - the regulated access to EDF's incumbent nuclear electricity. Created to remove the existence of a barrier to entry for suppliers who do not have access to baseload electricity[8], the purpose of this mechanism is to support the development of competition.

Up to a certain volume, i.e. approximately 25% of the production of EDF's nuclear electricity, the law gives alternative suppliers the benefit of access to this production under equivalent economic conditions to those of EDF. The law provides for the disappearance of the operative part of the ARENH in 2025. To this date, stakeholders have had to find other ways to get their baseload electricity supplies in a competitive way, by constructing, for example, new production capacities or by concluding long-term contracts with producers.

3.3. LOAD SHIFTING TARIFFS SHOULD BE RELAUNCHED FOR ALL SUPPLIERS

The French electricity system is characterised by very high peak consumption. This peak has been increasing for 40 years. It generates additional investment in the networks and production and requires the use of CO_2 emitting production means. In this context, France set up tariffs in the 1980' encouraging consumers to reduce their consumption during periods of high demand. These load shifting tariffs are offered to firms and households by EDF and local distribution companies. They are higher than the standard rates for a few days per year and in return offer an advantageous level for the rest of the year. Technically, EDF uses a hertz signal ("the 175 Hz signal") to inform its customers of the days on which they will be charged for the more expensive electricity and encourages them to use less. However, despite the interest in such tariffs for managing peak electricity, the load shifting volume available has steadily decreased since 1996, from 6 GW to 2 GW. This reduction is partly explained by the poor calibration of load shifting tariffs, whose level could not fully cover the operators' costs.

The Linky meter will develop new load shifting offers. The Energy minister wanted to revitalise the load shifting tariffs before the full deployment

THE END OF THE REGULATED SALES TARIFFS REPRESENTS A SIGNIFICANT MOVE TOWARD A REAL OPENING UP OF THE PROFESSIONAL MARKET TO COMPETITION.

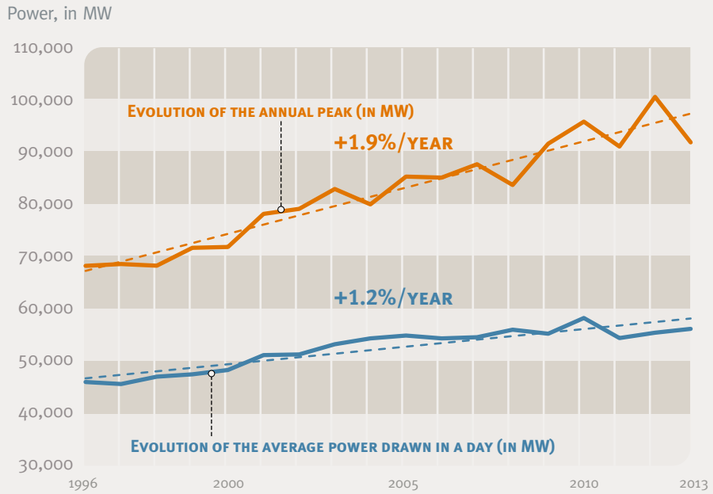
8 – *"Without regulation of the baseload electricity generated by EDF's incumbent power generation, EDF's competitor suppliers do not have the means to compete with the incumbent operator by competitive offers to end consumers."* Report of the Commission on the Organisation of the Electricity Market, Champsaur, April 2009: p. 10

The regulated sales tariffs for natural gas will be abolished on 1 January 2015 for non-residential consumers whose consumption level exceeds 200 MWh/year, such as, for example, offices of more than 1,600 m².
© iStock

THE END OF REGULATED SALES TARIFFS FOR NATURAL GAS FOR NON-RESIDENTIAL CUSTOMERS: A TIMETABLE WITH SEVERAL STEPS

Date of end of regulated sales tariffs	Professional categories concerned	Examples
Three months after the promulgation of the law on consumption on 18 June 2014	• Very large professional consumers connected to the transmission network. • Local distribution companies whose consumption level exceeds 100,000 MWh/year.	
1 January 2015	Non-residential consumers whose consumption level exceeds 200 MWh/year.	Supermarkets, offices whose area exceeds 1,600 m², educational institutions (colleges/high schools), retirement homes, hospital buildings, industrial sites and administrative buildings.
	Condominium syndicates, possibly represented by the managing agent or the sole owner of a building which is mainly used for housing (social lessor) whose consumption level is greater than 200 MWh/year.	Larger condominiums whose average consumption can reach 1 GWh/year.
1 January 2016	Professionals whose consumption level exceeds 30 MWh/year.	SMES: restaurants, offices with more than 150 m², workshops, small traders such as a small supermarket.
	Condominium syndicates, possibly represented by the managing agent or the sole owner of a building which is mainly used for housing (social lessor) whose consumption level is greater than 150 MWh/year. Local distribution companies whose consumption level is less than 100,000 MWh/year.	Managing agents of buildings managing more than 15 to 20 residences.

Evolution of the national consumption peak and average power from 1996 to 2013



Source: RTE data – Analysis: CRE

The French electricity system is characterised by very high peak consumption. Having increased in 40 years, this peak generates additional investment in the networks and production and requires the use of CO_2 emitting production means. The Linky meter will develop new load shifting offers.

of the smart meter, which is not expected before 2021. They will be the subject of a new tariff schedule and will now be offered by alternative suppliers to their customers.

A consultation group will be put in place under the aegis of the CRE on this subject, as advocated by the Energy minister in its communication of 9 July 2013. The work carried out during the first half of 2014 will include looking at the practical ways of activating the 175 Hz signal by RTE (responsibility possibly shared with distribution network operators in the long term) and should lead to rules and appropriate procedures being proposed allowing all suppliers to provide load shedding offers from summer 2014.

4. SPECIFIC SITUATIONS REQUIRE SPECIFIC TREATMENT

4.1. THE ABOLITION OF THE REGULATED TARIFFS COULD LEAD TO "ORPHAN" CUSTOMERS

Some customers, whether they use the regulated sales tariff or market offers, are faced with situations, usually related to their financial situation, in which they cannot find a supplier. It should be remembered that a refusal to sell is not prohibited for this category of customer, which also includes both businesses and collective residential customers.

With the end of the regulated rates, a large number of customers will, within the deadline available, subscribe to a market offer. This influx of requests to suppliers could lead to a multiplication of the phenomenon of "orphan" customers, some customers may not have a supply offer at the end of the "default" contract period provided for by the law on consumption. Aware of this risk, the CRE has engaged in discussions aimed at proposing a last resort supplier system to respond to these situations.

-10%
SHARPER DIFFERENCE RECORDED IN 2012
BETWEEN A MARKET OFFER AND THE REGULATED SALES TARIFF (INCLUDING ALL TAXES) FOR A RESIDENTIAL CUSTOMER IN PARIS USING GAS HEATING AND CONSUMING 17 MWH A YEAR

The law provides for an obligation for electricity, natural gas or heat suppliers to send the CRE and the national energy ombudsman information on the supply interruptions or power reductions carried out in the event of non-payment.
© EDF – Laurent Vautrin

4.2. CUSTOMERS IN A SITUATION OF FUEL POVERTY ENJOY AMENITIES

4.2.1. The social tariffs have been extended

The social tariffs for electricity and gas are funded by contributions (CSPE for electricity and CTSS for gas). Any person demonstrating an active fuel supply contract and whose income is below the ceiling of resources entitling aid paying a supplementary health insurance or whose reference income tax is less than €2,175 per share can benefit from it. Since 2012, suppliers automatically identify potential beneficiaries. Those entitled then receive a certificate stating that, unless their share is formally refused, they will benefit from the social tariffs.

Since 2013[9] social tariffs have been offered by all electricity and gas suppliers. They take the form of a lump-sum deduction, which varies depending on consumption and the number of people living in the household. Beneficiaries of social tariffs also have the right to free set-up, as well as a reduction factor of 80% of the cost of switching following an interruption to supply of a missed payment. However, the CRE stresses that the procedure for allocating social tariffs remains excessively complex, in terms of the number of stakeholders involved (suppliers, organisations acting on behalf of suppliers, distribution network operators, health insurance organisations, tax administration, managers of social residences) and the many streams of information that flow between them. This procedure therefore causes additional significant operating costs in relation to the amount of discounts. So, the CRE recommends that a study be undertaken to develop a simpler and more effective mechanism to assist customers who are in a situation of fuel poverty.

4.2.2. Interruptions to fuel supply have been prohibited in the case of non-payment

The act aimed at preparing for the transition to a simple fuel system containing various provisions on water pricing and on wind turbines which is called "Brottes law" has prohibited interruptions of supply for non-payment of bills for the supply of electricity, heat and gas to main residences, including by contract termination, between the 1 November of each year and 15 March of the following year. Only power reductions are still possible during this winter truce, except for consumers benefiting from the social electricity tariff.

The same law also provides for an obligation for electricity, natural gas or heat suppliers to send the CRE and the national energy ombudsman information on supply interruptions or power reductions carried out in the event of non-payment. In the draft decree which was submitted to it, and on which it issued a favourable opinion on 13 November 2013, the CRE recommended that such information be transmitted every three months and that it is identified by the customers' subscription level. It was also recommended that the reduction in power be restricted to 2 kVA for customers with a subscription of 3 kVA, the other power reduction levels remain applicable to customers with a subscription greater than or equal to 6 kVA.

In addition, the CRE wanted to draw the government's attention to the difficulties associated with an accumulation of non-payments during the winter truce. In the absence of a solution to deal with the situations of the most vulnerable consumers, many supply interruptions are likely to occur when coming out of this period.

4.3. THE BILL OF COMPANIES THAT CONSUME A LOT OF ENERGY IS EXAMINED BY THE CRE

For certain industries (metallurgy, chemistry, wood/paper, etc.), energy bill management is a key factor of competitiveness. The CRE published an analysis of the competitiveness of energy intensive companies in June 2013, offering a comparison between France and Germany.

4.3.1. Electricity intensive companies

In the customer bill of electricity intensive companies, the energy share, which corresponds to the electricity supply, is significantly higher than the other components, which are transmission, distribution, marketing and taxes. It can represent more than 4/5 of the invoice for a French industrialist. There are mechanisms for lowering the bills of these energy intensive companies, such as an exemption of the network costs in Germany, the capping of taxes and interruptibility in France and Germany. Some existing exemptions in Germany are the subject of investigation procedures by the European Commission.

In France, the energy share of the bill of an industrialist depends mostly on the ARENH, whose allocation volumes and price are established in accordance with the legislative and regulatory framework, and reflect the technical and economic operating conditions of EDF's historical nuclear production. In contrast, in Germany, this share essentially depends on the level of prices on the wholesale electricity market, whose volatility is high. By way of illustration, while in Germany the energy share in 2013 was at a level significantly higher than that observed in France; these two shares are very close in 2014. This is a result of the fall in prices on the German wholesale market while the ARENH remained stable: the arithmetic average of the price of the baseload calendar product 2013 exchanged on the German wholesale market in 2012 is set at around €49/MWh whereas, for the following year, the price dropped to €39/MWh. The price of the ARENH remained at €42/MWh over this same period 2013-2014. Accordingly, while electricity intensive German industrialists have been able to see their bill go down by approximately €10/MWh between 2013 and 2014, that of their French counterparts has remained stable.

In the short term, the trend in the fall in the level of the wholesale electricity market price on the German market in 2014 and 2015 should enable German energy intensive industries to benefit from a more competitive energy price, as long as the exemptions from taxes and network costs are maintained.

4.3.2. Gas-intensive companies and customers in the southern zone

The specific situation of gas-intensive consumers has been taken into account in the [French] Energy Code since the law of 16 July 2013 containing various provisions relating to adapting European Union law in the field of sustainable development. The activity and competitiveness of these consumers are affected by the price of gas in a market context, marked by significantly higher and more volatile wholesale prices in the south of France than in the north.

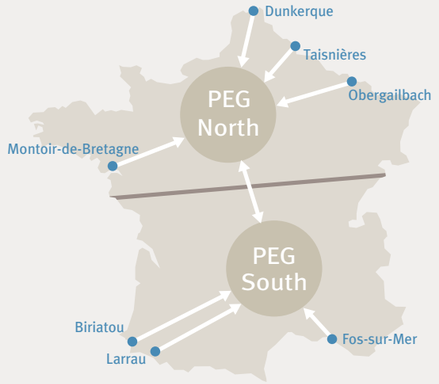
The price difference between the gas exchange point PEG North and the PEG South on the spot market for gas in France has actually increased sharply since 1 April 2012, with the price in the PEG South being higher. On the Powernext Gas Spot stock exchange, the day-ahead difference has exceeded a level of €6/MWh several times between 1 April and 31 August 2012. This phenomenon is

THE CRE PUBLISHED AN ANALYSIS OF THE COMPETITIVENESS OF ENERGY INTENSIVE COMPANIES IN JUNE 2013, OFFERING A COMPARISON BETWEEN FRANCE AND GERMANY.

9 – Decree No. 2013-1031 of 15 November 2013.

10 – Communication of 29 May 2013 on gas price formation on the South of France.

North/south tension on the gas spot market in France



Average difference PEG South-PEG North on the Powernext Gas Spot stock exchange:
+ 0.16 €/MWh in 2011
+ 2.74 €/MWh between 1 April and 31 August 2012
+7.62 €/MWh on 24 July 2012

The price gap between the gas exchange point PEG North and the PEG South on the spot market for gas in France has actually increased sharply since 1 April 2012, with the price in the PEG South being higher.

-2%

FALL IN THE GAS BILL INCLUDING ALL TAXES IN THE YEAR 2013

FOR A RESIDENTIAL CUSTOMER ON THE REGULATED SALE TARIFF USING GAS HEATING AND CONSUMING 17 MWH A YEAR

accompanied by a very important price volatility for the PEG South, which varied up to more than €5/MWh within a day.

The initial analyses of the CRE show that this disconnection primarily responds to the global context of the gas markets (LNG) but also to a structural tension in the supply of the southern zone[110].

In application of article L. 461-1 of the [French] Energy Code, the CRE defined, in its resolution of 17 October 2013, special access conditions to the natural gas transmission network to gas-intensive consumers located in the south of France.

These sites benefit, in the framework of the process for allocating capacity to the North-South link, from priority access to a portion of the gas transmission capacity from the North to the South (40 GWh/d of fixed capacity and 23 GWh/D of interruptible capacity) at the regulated tariff (€0.57/MWh). The demand of gas-intensive consumers in the South during the allocation of these capacities has been 92 GWh/d. The needs of gas-intensive consumers are therefore covered in the regulated price up to 55% (assuming an availability of interruptible capacity of 50%).

On the rest of their consumption, gas-intensive consumers will benefit, as other users of the networks in the South, from the redistribution of surplus supply from auctions. Overall, for an average gas-intensive consumer in the South, the price differential in relation to the North will therefore be, based on the price from the auction, approximately €1.3/MWh in 2015 (€0.57/MWh for 55% of its consumption and €2.2/MWh for the remaining 4%).

In the longer term, the CRE has set the objective of a single French common marketplace in 2018 in order to improve the operation of the market in the South of France. The creation of this single PEG France will remove the price differences between the North and the South of France and therefore converge toward a single gas price throughout the country. It will improve the efficiency of the French wholesale gas market, by simplifying access to the market of users of transmission networks, by focusing the liquidity on a single marketplace and by putting gas supply sources in direct competition. Before this deadline, a joint PEG will be created for the GRTgaz South and TIGF balancing zones on 1 April 2015.

“YOU CANNOT HELP BUT NOTICE THAT CONSUMERS STILL DO NOT FIND THE NEW REALITY ADEQUATE.”

3 QUESTIONS FOR...

FRANÇOISE THIEBAULT
SECRETARY GENERAL OF ASSOCIATIONS FAMILIALES LAÏQUES DE PARIS, AFL (SECULAR ASSOCIATIONS OF PARIS), MEMBER OF THE HIGHER ENERGY COUNCIL

The term “consumer” covers very different situations. Who consults the AFL Paris?

Our consumer defence agency deals with people who are in conflict with a professional or an administration. In terms of energy, this is achieved, for example, by requests for information on social tariffs (some people are slipping through the net in national files), complaints (bills, threats to cut the power, unrealistic deadlines, etc.), and also, when the overall situation of the person is analysed, by the establishment of social rights: housing allowance, CMUC (Complementary Universal Health Insurance), minimum pension and social tariffs for energy. This approach requires patience and availability. It is by speaking to them and gaining the confidence of consumers that the various elements necessary to offer good support are identified.

What is your view on the opening up to competition of the retail markets? What developments were there from your point of view in 2013?

Even if gas offers become more interesting, the price reduction that the opening up of retail markets should cause is not forthcoming.
In addition, we all know: prices, especially for electricity, will rise!
The regulation suffers from a lack of global vision. Everyone is working in their specific field: CRE, DGEC, DGCCRF, etc. everything is compartmentalised. The regulatory approach is far removed from the social reality. The political world, having legislated, does not always respect what it has created.
2013 was firstly the Brottes law, which introduced a winter truce whose effects are uncertain, and which will put in place “demand response operators”, paid for by the CSPE which small consumers would not benefit from.
It was also about the progress of smart meter projects, which the networks need. As citizens, we welcome that.
As consumers, we regret that energy demand management has not been encouraged more. What London Electricity has implemented should have been done in France.

The lack of consumer information on the subject is one of the factors that inhibits the opening up of markets. What are your initiatives, expectations or recommendations on the subject?

You cannot help but notice that consumers still do not find the new reality adequate. However, how can consumers understand why they receive retroactive bills? How can they find their way through the proliferation of commercial offers?
Six years after the opening of the market to domestic customers, the energy budget is permanently increasing and consumers are more lost than ever.
Our role is to inform, in our agencies or by making and disseminating simple leaflets, or via the periodical sent to our members.
It is also about raising awareness about energy savings, which we are doing in as fun a way as possible. It is finally about standing up for consumers who encounter difficulties with their suppliers.
This painstaking work must be extended and equipped with powerful means.
To build the future, we must understand where we are today. The public television channels, whose job is “to inform, educate and entertain”, should be tackling energy issues, and the need to make it clear to everyone what they can do at their level.
The CRE’s task is to “contribute to the benefit of end consumers, to the proper functioning of the electricity and natural gas markets”. In this sense, we would like to listen more carefully to consumers who suffer more that they cannot bear.

ANNEX

ACRONYMS

ACER	*Agency for the Cooperation of Energy Regulators*
ADEME	*Agence de l'environnement et de la maîtrise de l'énergie (French Agency for the Environment and Energy Management)*
AMF	*Autorité des marchés financiers (French Financial Markets Authority)*
ANODE	*Association nationale des opérateurs détaillants en énergie (organisation representing alternative power and gas suppliers on the French market)*
AODE	*Authorities that organise electricity distribution*
ARCEP	*Autorité de régulation des communications électroniques et des postes (French Telecommunications Regulatory Authority)*
ARENH	*Regulated access to incumbent nuclear electricity*
ATRD	*Tariff for the access to the gas distribution network*
EC	*European Commission*
CCPP	*Combined-cycle power plant*
CEER	*Council of European Energy Regulators*
CNIL	*Commission nationale de l'informatique et des libertés (French National Commission for Computing and Liberties)*
CoRDiS	*Comité de règlement des différends et des sanctions (Committee for Settling Disputes and Sanctions)*
CRE	*Commission de régulation de l'énergie (French Energy Regulatory Commission)*
CSE	*Conseil supérieur de l'énergie (French Higher Energy Council)*
CSPE	*Contribution to the public electricity service*
CTSS	*Contribution to the social gas tariff*
DGEC	*Direction générale de l'énergie et du climat (French Directorate-General of Energy and Climate)*
DSO	*Distribution system operator*
ENTSO-E	*European Network of Transmission System Operators for electricity*
ENTSO-G	*European Network of Transmission System Operators for gas*
EPR	*Evolutionary Power Reactor*
ETP	*Full time equivalent*
ETPT	*Full time equivalent work*
EUA	*European Union Allowance*
HVA	*High voltage A domain*
HVB	*High voltage B domain*
ITO	*Independent Transmission Operator*
LNG	*Liquefied natural gas*
LV	*Low voltage*
NOME	*New organisation of the electricity market*
NSCOGI	*North Seas Countries' Offshore Grid Initiative*
PCI	*Project of Common Interest*
PEG	*Gas exchange point*
RAB	*Regulated asset base*
REMIT	*Regulation on Wholesale Energy Market Integrity and Transparency*
TURPE	*Tariff for the use of public electricity networks*
TYNDP	*Ten-Year Network Development Plan*
WACC	*Weighted average cost of capital*

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Design and production: IDÉ EDITION
Printed on paper sourced from sustainably managed forests. Printed: 2nd quarter 2014

ISSN 1771-3196

COMMISSION
DE RÉGULATION
DE L'ÉNERGIE

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