COMMISSION
DE RÉGULATION
DE L'ÉNERGIE

MAJOR DEVELOPMENTS IN THE FRENCH ELECTRICITY AND NATURAL GAS MARKETS IN 2015 AND IN THE FIRST HALF OF 2016

Summary of the annual report of the CRE (Energy Regulatory Commission) to the European Commission

The Energy Regulatory Commission (CRE) celebrated its fifteenth anniversary in 2015. Since the Law of 10 February 2000 on the modernisation and development of public electricity utilities, the missions of the CRE have undergone continuous development.

The year 2015 marked an operational turning point in the implementation of the European Regulation of 25 October 2011 on the integrity and transparency of the wholesale energy market and required a great deal of work to support market players. Furthermore, certification of the CRE information security policy by ACER (Agency for the Cooperation of Energy Regulators) now authorises the CRE to obtain data collected by ACER. The CRE is one of the first national regulatory authorities in this situation.

In addition, as part of the elimination of regulated electricity and gas end-user tariffs, the CRE has implemented a major information campaign to ensure continuity of supply to business consumers who had not subscribed to market offers. It also advocated for a tender mechanism for supplying inactive clients, the organisation of which was assigned to it by order in February 2016.

Finally, the Energy Transition and Green Growth Act (LTECV) of 17 August 2015 assigned thirteen new missions to the CRE. These are linked in particular to the reform of support mechanisms for electricity generated from renewable sources, consumption load shedding on energy markets and to electricity supplies to overseas departments and regions. The CRE has also voiced its opinion on how the assignment to regulate access to underground natural gas storage facilities should be defined to strengthen the security of the French gas supply market.

1. REVIEW OF DEVELOPMENTS IN THE FRENCH ELECTRICITY MARKET IN 2015

1.1 The independence of public electricity grid operators is still a matter closely monitored by the regulator

The follow-up to the certification of RTE, the French public transmission system operator, led to the approval of fifteen contracts concluded with the vertically integrated company out of the sixteen that were submitted during 2015. The CRE has also ensured that the proposed appointments to the management and the supervisory board of RTE, of which it received notification, complied with the independence requirements applicable to the persons responsible for the management of an independent transmission operator. It also approved the extension of the employment contract of the RTE compliance manager until 30 September 2016.

Despite the progress made in 2013 and 2014, the independence of some distribution system operators (DSO) was still insufficient in 2015, particularly due to their organisation or the fact that their brand was being confused with those of suppliers belonging to the same group. In particular, the leading electricity distribution operator presented the CRE with its project to develop components constituting its brand in June 2015, the nature of which was not found to eliminate any risk of confusion in the absence of any change in the brand of its parent company. In early 2016, ERDF announced in a press release that it would rename itself. ERDF became Enedis on 31 May 2016.

1.2 Conditions for access to electricity transmission and distribution grids have undergone major developments

In the technical area, Linky smart meters began to be deployed in 2015, the target being to equip 35 million clients with these meters by 2021. The grid connection tariffs of the main French electricity DSO, which were amended following approval by the CRE in 2015, will change again as from 30 September 2016 to reflect the lower costs resulting from Linky deployment.

In addition, the regulatory framework governing the connection of public electricity utilities has been supplemented by the introduction of a maximum period of eighteen months for connecting installations generating electricity from renewable sources with a capacity exceeding 3 kVA.

Despite the good performance observed, there is still room for improvement in the quality of service and the quality of supply on public electricity grids. In particular, the CRE decided to strengthen its capacity to monitor the effects of the incentive regulation mechanisms it has established in the field of quality of service by asking all grid operators to submit an annual analysis of their service quality indicators as from 2016.

Under the tariff rules for the use of public electricity grids that were set by the CRE for the 2014-2017 period, transmission and distribution prices changed by +2.4% and +0.4% respectively on 1 August 2015. With regard to tariffs, 2015 also marked the start of work to establish the next tariffs planned to enter into force in summer 2017. In addition, for the first time the CRE applied financial incentives for the development of the interconnections, which it established in 2013, to the "Savoy-Piedmont" project between France and Italy. The commissioning of this 1,200 MW electrical power line, expected at the end of 2019, will increase the interconnection capacity between these two countries by about 40%.

1.3 Integration of the French market is ongoing

The assessment of the use of French interconnections prepared as part of the status review on the development of gas and electricity interconnections in France[1] shows that France is well interconnected with its neighbours. The average export capacity is 13.5 GW, to be compared with a peak consumption of 102 GW. The use of interconnections was significantly improved over the last 10 years. It is now largely optimised. Major milestones were passed in 2015 in terms of optimising the use of cross-border electrical infrastructures. The implementation of the flow-based market coupling since May 2015 in the CWE region and of a D-2 coordinated capacity calculation on the Italian border since February 2016 increased the available interconnection capacity on the market on the borders with Germany, Belgium, Luxembourg and Italy. The early implementation of harmonised allocation rules for long term transmission rights is also a decisive step in establishing the single allocation platform.

Regarding the development of French power interconnections, the commissioning of the power line linking Baixas to Santa Llogaia in Spain in October 2015, together with the launch of the Savoy-Piedmont project mentioned above, represent major breakthroughs of 2015. At the border with Spain, however, the commercial capacity will not reach its target of 2800 MW on average before grid reinforcement works within Spain are completed. Other projects to increase the exchange capacity between France and Spain, including the submarine cable project in the Bay of Biscay, are currently under consideration. Regarding this electrical interconnection project between France and Spain, technical uncertainties must be eliminated before a decision can be made on its suitability in terms of the benefits and costs it would generate. In 2016, the CRE will also examine a new request for financial incentives for a projected additional 1000 MW link with Great Britain (IFA 2) to be commissioned in 2020. The CRE will continue to ensure that all of these projects are subject to rigorous analyses that take into account all the internal enhancements required to put the new capacities to full use.

Finally, the CRE contributes actively to preparing and organising consultations in France to facilitate the development of the French regulatory framework in compliance with the European network codes and guidelines. In particular, the work which was launched in 2015 on the balancing rules and on the technical requirements for grid connection of generators will continue in 2016.

1.4 Trading has shown sustained growth on the wholesale market

The volume traded on the French day-ahead market continued its strong growth in 2015: it increased by approximately 60% both on the organised market and over the counter. The average baseload spot price increased in 2015 to €38.5/MWh, but fell to €42.3/MWh at peak times, i.e. an 11% increase and a 3% decrease respectively as compared with 2014. This discrepancy is mainly due to the very mild temperatures at the beginning of the year that kept consumption down.

[1] Report on electricity and gas interconnections in France

The relatively low wholesale market prices compared to the level of the ARENH (Regulated Access to Historical Nuclear Energy) observed throughout the year encouraged market players not to activate their right and to obtain supplies directly on the wholesale market. Subscriptions under regulated access to historical nuclear energy (ARENH) dropped by 77% during 2015, while trading on the wholesale market showed strong growth in 2015: volumes negotiated on futures and forward increased by more than 300% and 30% respectively.

In 2015, 5.4 TWh were traded intraday against 5.2 TWh in 2014. The volume of cross-border trade, however, diminished in favour of domestic transactions, which increased by almost 25%.

Although flow-based market coupling can optimise the use of interconnections, the coupling rate between France and the rest of CWE fell in 2015 due to changes in the fundamentals of the different electrical power systems (a drop in nuclear availability in Belgium, increased renewable power generation and dependence to lignite and coal in Germany). Nevertheless, the coupling rate between the France and Spain clearly improved following the extension of market coupling in March 2014.

1.5 The opening of the retail market to competition increased after regulated tariffs for the largest consumers were eliminated

On the retail market, the opening of the residential market to competition continued at the same pace as in 2014 (with more than 559,000 switches to market offers). Accordingly, 3,689,000 sites out of a total of 31.7 million were has a contract at market prices on 31 December 2015, of which more than 99% had subscribed to an alternative supplier. On this segment, regulated tariffs now account for 91% of consumption (88% of sites).

The approaching deadline for the end of regulated tariffs for non-residential consumers with subscriptions of over 36 kVA clearly speeded up the opening of the non-household market to competition. The number of non-residential sites with a contract at market prices increased by 39.8% in 2015 (976,000 sites out of a total of 4.9 million), as opposed to 3% in 2014; approximately 60% of these sites which subscribed to a market offer did so with an alternative supplier. Although they still apply to 80% of sites, regulated tariffs only accounted for 35% of non-residential consumption as of 31 December 2015. However, more than half (252,000 sites) of the sites affected by the elimination of end-user regulated tariffs had not subscribed to market offers on 31 December 2015 and switched automatically to a default (transitional) offer at a fixed increased price for a six-month period. They still accounted for 40% of sites on 31 January 2016.

1.6 The balance of supply and demand has improved

The domestic consumption, including grid losses, amounted to 475.4 TWh in 2015, registering a 2.2% growth from 2014. France imported 10.2 TWh from Germany and exported to Italy (21.2 TWh), Belgium (17.7 TWh), Switzerland (15.3 TWh), Great Britain (14.9 TWh) and Spain (7.8 TWh).

The 2015 edition of RTE's balance forecast shows a net improvement in the balance between supply and demand, in particular for the winters 2015-2016 and 2016-2017. This evolution is in particular due to optimisation of oil-fired facilities allowing 3.8 GW of capacity to be kept operational beyond 31 December 2015, along with an upward revision of the available capacity of combined cycle plants. The development of load shedding that the CRE continued to actively promote in 2015 is also contributing to the improvement of these prospects. Finally, the capacity mechanism for which the CRE supplemented the regulatory framework in the first half of 2015 is also intended to ensure an adequate contribution of suppliers to the medium term security of the electricity supply.

The RTE reference scenario until 2020 uses a consumption figure of 484 TWh, i.e. an increase of around 7 TWh only in comparison with 2014, as improved energy efficiency in the building, residential and service sectors notably yields savings of 24 TWh. The average annual investment planned for the period amounts to €1.5 billion.

2. REVIEW OF DEVELOPMENTS IN THE FRENCH NATURAL GAS MARKET IN 2015

2.1 The independence of natural gas network operators is improving but, for some operators, needs further strengthening

In the course of monitoring the certification of natural gas transmission grid operators, thirty-six contracts concluded between GRTgaz and the vertically integrated company Engie or between GRTgaz and subsidiaries of Engie were approved by the CRE in 2015. In addition, during 2015 the CRE examined the certification conditions of TIGF following the acquisition of 10% of the capital of this grid operator by Predica and approved the compliance of the situation of TIGF with independence requirements on 4 February 2016. Positive developments can also be highlighted in the implementation of the codes of conduct of two French transmission network operators: in particular, GRTgaz information systems are fully separated and GRTgaz complied with most of CRE's

requests concerning the implementation of a communication convention with its parent company or of measures to protect commercially sensitive information.

Regarding the independence of distribution grid operators and local gas distribution companies, full compliance with independence requirements by Régaz-Bordeaux with regard to its subsidiaries supplying natural gas and producing biomethane and by Réseau GDS with regard to its subsidiary producing biomethane still depends on the implementation of the measures requested by the CRE. Furthermore, although the change of name of the vertically integrated company Engie (formerly GDF SUEZ) was found to resolve the issue of confusion between GRDF and its parent company, the use of the "*Tarif Réglementé Gaz – GDF SUEZ*" [Regulated Gas Tariff - GDF SUEZ] brand on the incumbent supplier's invoices requires the risk of the general public confusing the two companies to be reviewed.

2.2 Conditions for access to gas infrastructures are still changing

In the technical area, the launch by GRDF in early 2016 of a pilot program for the deployment of its Gazpar smart meters, involving a reduced but representative number of 150,000 meters, represents considerable progress, as approximately 11 million consumers will be equipped with these meters between the beginning of 2017 and the end of 2022. It should also be noted that the performance of GRDF and local distribution companies in relation to quality of service has improved overall, although there is still room for improvement among some of them, e.g. with regard to implementation deadlines for work with end clients or delays in responding to complaints.

The tariff rules currently in force in the field of natural gas transmission have led to major changes, including in the organisation of gas markets in France: accordingly, following the merger of the H and B balancing perimeters in the GRTgaz North region on 1 April 2013, a joint GRTgaz South and TIGF gas exchange point named Trading South Region (TSR) was established on 1 April 2015. In addition, during the tariff update of 1 April 2015, a new point of entry to the GRTgaz grid from the Dunkirk LNG terminal, which is scheduled for full commissioning in September 2016, and a new non-odourised gas exit point to Belgium at Alveringem were created. This update led to an increase in authorised revenue by 3.7% and 3.9% for GRTgaz and TIGF respectively. Regarding distribution, the tariff of GRDF and local distribution companies increased respectively by 3.93% on 1 July 2015 for the former and by percentages between + 0.92% (Régaz-Bordeaux) and + 5.03% (Sorégies) for the latter. The CRE also developed the next tariffs for the use of natural gas grids: the CRE decision on the next GRDF tariff plan (ATRD5) set an increase in euros of 2.7% on 1 July 2016. For the period from 2017 to 2019, the CRE adopted an annual change in the GRDF tariff corresponding to an average annual productivity target of 0.4% of the operator's net operating costs for this period. The development of the next ATRD5 tariffs for local distribution companies and of ATRT6 (transmission) tariffs is currently ongoing.

Finally, 2015 was marked by a review of the conditions for access to storage facilities, in a context where diminishing subscriptions have prompted the government to substantially strengthen storage obligations to ensure security of the country's supply. In this context, the CRE has declared itself in favour of regulating the revenues of storage operators, taking account of the fact that the system of obligations, which provides Storengy and TIGF with certainty that they will be able to sell a substantial part of their storage capacity, must be accompanied by a clear regulatory framework for greater transparency. The CRE has also expressed its preference for the storage capacity auctioning mechanism, noting that such a market mechanism would ensure security of supply for the country only if the auction reserve prices are correctly set. Entry into force of the reformed arrangements for access to storage facilities ensuing from these considerations is planned around the end of 2016 to early 2017.

2.3 Regulations for the use of French interconnections have changed under European legislation

The CRE and French transmission operators have opened discussions on adapting the French regulatory framework to the legal provisions regarding conditions for access to natural gas transmission grids as early as 2012. These efforts have made it possible to introduce the mechanisms stipulated in Annex 1 to Regulation (EC) nº 715/2009 on congestion management procedures before the implementation deadline, i.e. as from 1 October 2013. Discussions are ongoing concerning each border point to ensure greater convergence of the mechanisms in place and to promote their effectiveness, particularly with regard to bundled products.

Similarly, the provisions of Regulation (UE) nº 984/2013 relating to the establishment of a network code for capacity allocation mechanisms in gas transmission systems have been implemented early, from April 2013. Following the signing in February 2015 of an association and service delivery agreement between the Spanish (Enagas) and Portuguese (REN) transmission system operators and the PRISMA platform, the capacities of all French interconnection points are now allocated on a single platform.

Finally, the balancing network code ensuing from Regulation (UE) nº 312/2014 was implemented on 1 October 2015. The CRE, which had anticipated the implementation of this network code and approved the proposed

adaptation trajectories proposed by GRTgaz and TIGF in December 2011, approved the proposals to change the balancing rules of the two French transmission network operators in September 2015.

The development of French gas interconnections is ongoing. In addition to the establishment in 2015 of a new point of entry to the GRTgaz grid from the Dunkirk LNG terminal and a new non-odourised gas exit point to Belgium at Alveringem, works began to create a capacity of 100 GWh per day at the French-Swiss border at Oltingue as from 1 October 2018. In addition, GRTgaz initiated pilot projects in the Nord region to explore the feasibility of decentralised odourisation solutions on its grid and to address differences between odourisation practices in France and Germany, which prevent the development of firm exit capacities to Germany. Finally, in 2015 the French (TIGF and GRTgaz) and Spanish (Enagas) transmission system operators analysed the investment required to develop firm capacity of 230 GWh/day in the Spain-France direction and 160 GWh/day in the France-Spain direction. To prevent consumers being exposed to considerable costs without proper demonstration of corresponding benefits in terms of building the European market and enhancing security of supply, the CRE considers that additional interconnection capacities with Spain cannot be developed without an open season. Should this prove to be negative, solid cost-benefit studies will have to be carried out to identify and quantify the benefits for each country concerned and for the European Union, while finance for the project must be organised in relation to these benefits in accordance with the cross-border cost allocation principle applying to projects of common interest.

2.4 The downward trend in wholesale gas prices continued in 2015

Day-ahead prices at the North Gas Exchange Point decreased by 6.2% in 2015 and averaged €20.1/MWh against €21.4/MWh in 2014. The year 2015 was marked by a general decline in raw material prices and a relatively mild winter, which further deepened the drop in prices at the end of the year. French prices followed the trend observed at the main hubs in North-West Europe, indicating an absence of physical congestion between these markets. Similarly, the day-ahead price spread between the North Gas Exchange Point and the south of France, which appeared in 2012 amid structural tension affecting supplies to the south of France, decreased substantially in 2015 due to improved LNG supply conditions and satisfactory stock levels.

In terms of volume, transactions through Powernext continued to move forward in 2015 on the spot market but decreased on the futures market, which remains dominated by brokers (nearly 84% of transactions).

A total of 768 TWh of gas were delivered to gas exchange points during the year, representing an increase of almost 20% compared to 2014, while deliveries to Trading South Region (TRS) have continued growing, reaching 26% of the total traded in 2015. The concentration levels found at the two French exchange points are characteristic of relatively low concentrated markets.

2.5 The opening of the retail market to competition has continued steadily in the non-residential sector

The opening of the residential market to competition accelerated slightly in 2015. On 31 December 2015, 4,360,000 residential sites out of a total of 10.6 million had a contract at market prices, representing an increase of 908,000 sites from 2015 (+26%). This corresponds to an average of 76,000 additional sites per month under market offers. However, residential consumers who subscribed to market offers tend to favour incumbent suppliers: 65% of residential sites which took up market offers in 2015 did so from incumbent companies. Furthermore, end-user regulated tariffs remain dominant with 59% of sites and household consumption.

The opening of the non-residential market to competition continued steadily, with the number of non-residential sites with a contract at market prices having increased by 36% from 2015. On 31 December 2015, a total of 545,000 out of 664,000 sites had switched to market offers, including 43% with an alternative supplier. The end of eligibility to regulated tariffs for the largest natural gas consumers on 1 January 2016 further accelerated the opening of the market to competition: on 31 January 2016 the market share of alternative providers reached 73% and 57% of the volume of annual consumption respectively for sites connected to the transmission and distribution grids, against 71% and 54% on 31 December 2015.

2.6 The French gas system has substantial capacity for resilience

Natural gas accounts for 14% of primary energy consumption in France and 20% of final energy consumption. Net consumption (excluding losses) amounted to 449 TWh, representing an 8% increase from 2014. Although 2015 was among the warmest years ever observed, this development is due to the fact that the demand for gas from electrical power plants increased by a factor of 2.6 from 2014. For the 2015-2024 period, GRTgaz and TIGF anticipate a drop in annual consumption by about 0.3% and 0.1% per year respectively. Moreover, the LTECV (Energy Transition and Green Growth Act) prescribes a 30% reduction in primary fossil fuel consumption in 2030 as compared to 2012.

On the supply side, the amounts of gas injected into the French grid through pipelines reached 454 TWh, a stable level compared to 2014. A total of 62 TWh of gas also entered France through LNG terminals, against 69.6 TWh in 2014 and 86 TWh in 2013, i.e. a 28% drop as compared with 2013. Withdrawals from storage facilities reached 119 TWh, i.e. a 20% increase from 2014. With regard to gas exports from France, it should be noted that flows towards Switzerland at Oltingue returned to their 2012 level, reaching 29.5 TWh in 2014 and 30 TWh in 2015. Flows towards Spain, which had increased by about 40% between 2012 and 2014, decreased in 2015 in favour of a return to LNG in the Iberian Peninsula and pipeline imports from Algeria. They amounted to 61 TWh in 2015 (-22% between 2014 and 2015).

The important investments made in France and in interconnections, amounting to about 3 billion euros over the last ten years, now provide the French gas system with extensive capacity to overcome possible supply shortages and the rate of use of entry infrastructures to France has reached its lowest level for 4 years at 51%.

The next major step for the French market, i.e. creation of a single French gas exchange point in 2018, will concentrate liquidity in a market connected to five countries (Norway, Belgium, Germany, Switzerland and Spain) and four LNG terminals. At the end of the cycle of work initiated in June 2016 to adapt the GRTgaz offer, to manage exchanges of information with TIGF and to lift operational limitations that may appear, the CRE will hold consultations and discussions to determine the operational details for merging the French market zones in the second half of 2017.

3. ANNUAL REVIEW OF ARRANGEMENTS FOR CONSUMER INFORMATION AND PROTECTION

The one-stop information site energie-info.fr, which provides answers to consumer questions on their rights, on the legislation in force and on the means available to settle disputes, provided information to nearly 2 million consumers in 2015. In addition, the national energy ombudsman received 12,319 complaints, of which 3,497 were deemed admissible. A total of 72% of the admissible disputes were formally addressed (with a written recommendation or amicable agreement) and 28% were resolved informally. Complaints received by the energie-info.fr service focus on disputes related to consumption bills and estimation by suppliers, unrequested contract cancellations due mainly to technical errors on the part of suppliers, commercial practices considered as unfair, supply cuts following billing disputes or payment difficulties and disputes relating to electricity or natural gas grid connections.

Arrangements to protect vulnerable consumers benefited approximately 3.2 million out of 4 million homes that could potentially benefit from electricity social tariff and 1.3 million out of about 1.6 million homes that could potentially benefit from the special gas solidarity tariff. In 2015, the cost of these arrangements including management costs amounted to €294 million for the electricity social tariff and €95.7 million for the special gas solidarity tariff. Expenditure forecasts for 2016 including management costs amount to €321.0 million for the electricity social tariff and €101.6 million for the special gas solidarity tariff. According to the provisions of the LTECV (Energy Transition towards Green Growth Act), these arrangements should be replaced by an energy voucher system currently in the experimental phase in four departments in mainland France, which will enable beneficiary households to pay their energy bills regardless of their type of heating system (electricity, natural gas, LPG, fuel oil, firewood, etc.).