



INSTITUT LUXEMBOURGEOIS DE RÉGULATION

National Report – English summary

2011

Luxembourg, September 2012

Major developments in the electricity and gas markets

In 2011, the electricity market in Luxembourg counted 278.199 consumers who consumed 6.64 TWh of energy. These final consumers are spread across 11 different energy suppliers. The Institute has not been able to report significant movements in the market share of suppliers compared to the previous year.

Concerning the quality of supply, the distribution system operators reported 174 interruptions lasting longer than three minutes, 85 of which had not been scheduled. As regards the quality of service, 53% of the requests for connection by residential customers could not be processed within the ten working days that are envisaged by the current legislation. 22% of connections were not made within a period of 30 working days from the moment of the customer's submission of all the required licences and authorisations.

In the sector of natural gas, the national consumption was 13,4 TWh, which constitutes a drop of 2 TWh compared to 2010. This drop is essentially due to the reduced activity of industrial consumers and to a reduced operating regime of the CCGT unit in Esch-sur-Alzette.

1.1. Competencies of the Institute

The Institute is an independent actor whose duties include overseeing and ensuring the full functioning of the energy market, as well as a basic universal service in the interest of consumers. Ensuring effective and sustainable competition by avoiding discrimination in access for new entrants, the Institute allows consumers to freely choose between a growing number of offers and products at fair and competitive prices. Since the opening of the markets on 1 July 2007, final customers also have the option of entering into a contract with the energy supplier of their choice.

UNBUNDLING OF TRANSMISSION AND DISTRIBUTION SYSTEMS

The Institute provides non-discriminatory access to networks through legal, functional and financial unbundling, particularly through the analysis of separate accounts for each activity, service delivery contracts and internal regulations with vertically integrated companies.

The year 2011 is characterised by the integration of the electricity and natural gas network of the City of Luxembourg (VdL) into the Creos network. The merger was carried out mainly in terms of human resources (integration of VdL staff into CREOS teams) and accounting.

As far as functional unbundling is concerned, CREOS Luxembourg S.A. uses services shared with other entities of the group, namely Enovos International S.A. and Enovos Luxembourg S.A. for certain activities. These services include human resources, the legal department, the

finance department, internal audit, IT and risk management. Contracts have been negotiated for the year 2011 and have been notified to the Institute.

DETERMINATION OF RATES OF CONNECTION AND USE OF NETWORKS

With the entry into force of the Law of 1 August 2007 on the organisation of the electricity market and the law of 1 August 2007 on the organisation of the natural gas market, the Institute is responsible for both establishing the method for determining tariffs for use of the networks and ancillary services.

In 2011, the model of incentive regulation was introduced by the Institute in order to encourage system operators to manage resources more effectively and reasonably. Following the input of the two public consultations launched in May and July 2011, the Institute established the E12/05/ILR Regulation of 22 March 2012, which lays down the principles applicable to all system operators for determining their network costs and transposing them into a tariff structure. The new method allows decoupling between actual costs and income concerning authorized controllable operating costs –costs that can be influenced by the system operator.

The Institute requires documentation of internal procedures relating to ordinary investment from system operators to ensure responsible and efficient management. Major investment projects are subject to further analysis.

In addition, the Institute has reviewed and approved the proposed network usage rates of five electricity system operators in 2011. In terms of natural gas, system operators must also submit their technical and financial conditions, in accordance with legal provisions, to the Institute. The approved rates are published on the Institute's website.

SUPERVISION AND MONITORING OF THE DEVELOPMENT OF COMPETITION

On the electricity market, there is no specific transmission capacity allocation required. Due to the absence of congestion on the cross-border interconnection lines, Luxembourgish market participants are integrated into the German price zone and can therefore participate in the trade of electricity on the German exchange. Most transactions made by electricity suppliers active in Luxembourg are of the OTC (Over The Counter) type.

In the Grand Duchy, there is not really a wholesale market for natural gas, because supply comes mostly from foreign markets. Therefore, market prices are those of the neighboring countries (VP, NCG, TTF, ZEEBRUGGE).

Currently, the Institute monitors neither the transaction prices on the wholesale electricity market, nor those for natural gas.

Regarding the development of competition, 2011 confirms the presence of alternative foreign

suppliers at the level of national electricity supply. Although domestic production remains modest, Luxembourg suppliers are continuously diversifying their sources of supply in order to hedge against market risks and to take advantage of opportunities that arise.

Because most suppliers obtain their supply on foreign markets, competition is essentially played out around importing from neighboring countries (Germany and Belgium). In the Creos zone, for example, only 17.02% of supply came from local production in 2011. 40% of domestic consumption came from domestic production, while 60% was covered by net imports.

Eleven electricity companies share the retail market in Luxembourg, 7 of which were active in the residential market. All 11 are active on the non-residential market. So, it is clear that the Luxembourg electricity market has a fairly large number of actors for its size. The problem is that too few of these actors have a significant market share to date.

The switching rate in the retail market thus remains relatively low. In 2011, in the electricity sector, the rate of switching was 0.53% in volume terms and 0.27% in terms of number of customers, which corresponds to 495 actual switches. This is a slight increase of 0.16% compared to 2010. With a rate of 0.6%, business customers have a higher rate of switching suppliers. In the industrial sector, the rate is 0.3% for the year 2011.

In the natural gas sector, the rate remains below 0.1% with only 25 switches in all categories: 19 final customers belonging to the residential segment and 6 in the commercial and medium-industry segment.

As a result of this, the Institute insists that the system operators develop and publish a simple, clear and transparent procedure for supplier switching, which is in the interest of the customer.

In fact, the consumer becomes more and more important. The 3rd Energy Package requires the national regulators to provide more transparency, better communication and better consumer protection. This recognises the consumer's vulnerability facing the suppliers and an increasingly difficult-to-define liberalised market. The Institute has launched its website, which is dedicated to final consumers (www.STROUMaGAS.lu). While the site is still under construction, it seeks to support clients by clarifying their rights, opportunities and responsibilities in the context of the liberalised energy market. It will eventually assume the role of a single point of contact for residential customers, containing information about suppliers, products, procedures for switching, alternative dispute resolution, etc. In 2011, the Institute began setting up an automated price comparison tool, which will appear on the site. Although the tool is still in the development phase, the Institute also has a manual tool that allows residential customers to compare rates.

2011 was marked by the implementation of the alternative dispute resolution procedure introduced by Regulation 11/27/ILR of 25 May 2011. This procedure is open to all final

residential customers who experience problems with their supplier or system operator. The Institute's role is to reconcile the opposing parties. The proposed solutions to disputes are not binding. The mediation process meets the criteria for transparency, simplicity, speed and no cost as agreed by the regulation. No request for an alternative dispute resolution was received in 2011.

In addition, the Institute monitors compliance with recall procedures and disconnections made by energy suppliers. The Institute has noticed the need for harmonisation of procedures concerning the treatment of vulnerable customers who have failed to make their payments. So, since the 3rd Energy Package, regulatory authorities are responsible for monitoring the protection measures in place to protect vulnerable customers.

The Institute commissioned the company WIK-Consult to deliver a study identifying the causes of the lack of effective competition in the residential and small business consumers market. The main reasons identified include the limited market potential in Luxembourg and the presence of one dominant supplier who has many links with other energy companies. In addition, language barriers impede the entry of foreign players, especially those from Germany. Luxembourg also lacks harmonised procedures with neighboring countries.

The competition in the natural gas market is growing much more slowly than in the electricity market. Eight companies share the market in the Grand Duchy, four of which were active in the residential market and seven in the non-residential market in 2011. The market shows a small number of players who virtually possess a monopoly on the segments of industrial consumers and electricity producers.

Since 2007, the electricity and natural gas markets are open to competition. This means that consumers are provided with contract offers, which must be monitored very carefully. The price of electricity, the distribution network tariffs approved by the Institute, as well as energy tax, VAT and contribution to public service obligations (PSOs), such as the compensation mechanism, are the tariff elements that determine the trends in pricing for consumers connected to the distribution network. Starting in 2009, Statec has measured the level of electricity and natural gas prices using the new methodology of Eurostat.

A modest decrease in prices for residential consumers was observed for 2011. While the cost of using the network remains stable, this decline can be explained by a decrease in energy prices and the contribution to the compensation mechanism.

Regarding the usage tariffs for the natural gas network, the technical and financial conditions submitted by system operators must first be accepted by the Institute in accordance with legal provisions. The approved tariffs are published on the website of the Institute, as well as on those of the respective system operators. The Institute also carries out checks to ensure that the allocation of costs between regulated and competitive activities is appropriate. The transmission tariff corresponds to a unit price per unit of hourly maximum capacity booked at

the entry points by shippers. For distribution systems, rates are on a sliding scale of the maximum annual capacity and/or the annual consumption of different consumers.

Finally, the prices of natural gas for two different categories of customers were published by Eurostat in the second half of 2011. For a residential customer consuming between 20-200 GJ/year, the price has increased in 2011 compared to the previous year (from 11.60 €/GJ to 12.72 €/GJ) while prices for an industrial customer consuming between 10.000-100.000 GJ/year have remained stable at 11.58 €/GJ.

1.2. European and cross-border cooperation

The Institute has contributed significantly to European projects in order to promote the creation of a single, more competitive, European market for products and services of the energy sector. The opening of the energy markets through the implementation of rules and common infrastructure ensures that energy can be sold to the final user by the most economical means.

At the level of the European Union, 2011 was marked by the creation of the European Agency for the Cooperation of Energy Regulators as part of the 3rd Energy Package, which relates to the internal market. It deals with issues of European and cross-border importance relating to energy and ensures the coordination of national energy regulators. The communication and cooperation between Luxembourg and the European Commission, as well as the other Member States, is based on a regular exchange of documents and information.

Moreover, the 2011 Regulation No 1227/2011 of the European Parliament and of the Council of 25 October 2011 (REMIT) was incorporated into the legal framework of the European Union with the goal of strengthening the integrity and transparency of the wholesale energy market (electricity and gas) and to thus promote open competition in the interest of the end user. In the absence of national legislation, the Institute does not have the necessary investigative powers and sanctions that REMIT requires.

The coupling of regional markets represents an important step towards the integration of European electricity markets and is therefore fundamental to the competitiveness of the EU economy and the well-being of the citizens.

To meet this challenge, the Institute has participated in the development of the work plan 2011-2014 for the Central West Region, always with the same goal of achieving a more competitive internal market. It also contributes to regional cooperation aiming to identify incompatibilities between national regulatory regimes and to find appropriate solutions to the problems arising in the development of an infrastructure for the electricity grid in the North Sea ("North Seas Countries' offshore Grid Initiative").

At a national level, projects to strengthen cross-border interconnections are being studied in

collaboration with RTE, Elia and Amprion, the transmission system operators of the neighboring countries.

The gas market is highly dependent on the neighboring countries. Almost all natural gas consumed in Luxembourg is imported from Belgium (West) and Germany (East). Moreover, Creos and GRTgaz want to promote the efficiency and fluidity of the natural gas market in North West Europe. So, additional capacities of natural gas transport from France to Luxembourg are proposed within the framework of an "Open Season."

Finally, North West regional initiative has developed its work plan for 2011-2014. In this context, the Institute has contributed to an analysis of the compliance of the transport system operators to the transparency requirements such as marked in Regulation 715/2009 (Annex 1, Chapter 3 concerning the definitions of the technical information necessary for users to gain effective access to the network, providing the transparency requirements, information to be published on all relevant points, as well as fixing the frequency of publication). A public consultation on the questionnaires completed by the TSOs was launched in late 2011 and will be evaluated in 2012.

1.3. Strengthening security of supply

The Institute does not have specific competence in security of supply issues. The Government Commissioner for Energy is in charge of monitoring the balance between supply and demand, generation capacity and existing projects, as well as investments and security network operations. Finally, they provide information on their activities in a biennial report.

In the future, investment in new power generation capacity will be needed, because a rise in prices in the region will be one of the consequences of Germany abandoning nuclear power. Consequently, the demand for electricity will be covered by a reduced number of plants. In addition, the spare capacity in the region will decline. It therefore seems reasonable and justified to invest more in generation capacity on Luxembourg territory in order to diversify transport routes and energy sources.

The natural gas plants of the CCGT type seem most appropriate and most capable of responding to the rapid changes in needs which result from intermittent power generation of renewable energy sources. This will allow for the reduction of dependency on electricity imports from Germany.

In terms of electricity, the total generation capacity amounted to 640 MW in 2011, excluding the pump storage plant of Vianden. The total generation capacity of the Creos zone it is about 265 MW, which constitutes an increase compared to 2010. This increase is due to the increase in capacity of photovoltaic plants (11.2 MW).

Generation in Luxembourg is from two main units: the combined-cycle gas turbine located in Esch-sur-Alzette (376 MW) and the pump storage plant of 1096 MW in Vianden. The latter

will increase the capacity of its turbines through adding an 11th machine of about 200 MW. Meanwhile, the capacity of the water pools will be increased by 500,000 m³. These improvements will increase the total capacity to 1290 MW.

In terms of natural gas, the Grand Duchy is not capable of performing storage operations or of assuming the stages of production/exploration because it possesses neither exploration fields, nor the geological conditions that would allow cavern or aquifer storage. Luxembourg can, however, by contract, ensure storage capacity through its neighboring countries in order to meet its needs.

The model for access to the natural gas transport network is set by Regulation E11/21/ILR of 7 April 2011, which modifies the methods for allocating capacity and managing congestion. Capacity will now be awarded via an OSP (Open Subscription Period) mechanism, which allows actors to subscribe to firm and interruptible capacities at different horizons. Nevertheless, on the Belgian border, the firm capacity requested exceeds the firm capacity available. Capacities from Germany are also limited because of a lack of firm capacity at the exit point of the German network.

As a consequence, in order to minimize the disruption of natural gas supply, Luxembourg must exploit every opportunity to develop its entry capacity.

2011 was marked by a strong willingness to establish an extensive European internal market for electricity and natural gas that is competitive, efficient and sustainable. At the level of the European Union, the inauguration of the Agency, which will henceforth ensure the cooperation between the regulatory authorities of different Member States responsible for the energy sector, is, without question, a key event. The establishment of an internal market for natural gas and electricity is necessary for ensuring the sustainable competitiveness of the European Union in the interest of consumers.

The Grand Duchy follows this policy at a national level by strengthening transmission network interconnections with neighboring countries. This approach facilitates the integration of electricity and natural gas markets at a regional level on the one hand and the stability of its own security of supply on the other. The Institute contributes to significant investments in cross-border projects to diversify its energy sources and to face the new challenges of supply that will arise in the future.

Finally, the year 2011 was marked by the participation of the Institute working group formed by the electricity and natural gas distribution system operators geared towards the deployment of a common national smart metering infrastructure.