4. The natural gas market

4.1. Regulation

4.1.1. Natural gas supply

4.1.1.1. Federal natural gas supply permits

The supply of natural gas to customers (distribution companies or end customers whose gas offtake at each supply point permanently amounts to a minimum of one million m³ per year) established in Belgium is subject to the prior granting of an individual permit issued by the Minister for Energy (except when it is carried out by a distribution company on its own distribution system).

The federal permit application dossiers are sent to the CREG which examines the criteria and then sends its opinion to the Minister for Energy.

In this context, the CREG provided three opinions in 2015 following requests submitted by Bayerngas Vertrieb[89], Essent Belgium[90] and Enovos Luxembourg[91].

In 2015, total natural gas[92] consumption amounted to 175.8 TWh, which represents an increase of 9.6% compared with consumption in 2014 (160.4 TWh). This increase results from an increased consumption of natural gases in all consumer segments. We observe a far greater consumption for end customers connected to the distribution systems (+10.7%), a slight increase in consumption for the generation of electricity (possibly combined with heat production) (+12.4%) and a limited increase in consumption by industrial customers (+4.8%).

In 2015, just one additional company began to supply the wholesale market in natural gas: ArcelorMittal Energy S.C.A. Moreover, it should be mentioned that GDF Suez changed its name to Engie, but it still carries out its transmission activities from its Electrabel subsidiary. If we include the takeover or integration of transmission operations in a business of the same group, 23 companies were active in 2015 on the Belgian natural gas transmission market.

The top three supply companies also remain unchanged in 2015, as do their rankings. Electrabel (Engie/GDF Suez) retains first place and has seen its market share grow from 30.8% in 2014 to 31.4% in 2015 (+0.6%). Eni Gas & Power holds on to second place and has seen its market share reduced by 4.4% to 24.5%. Eni Gas & Power has seen the sharpest drop in market share. EDF Luminus remains stable at 9.6%.

RWE Supply & Trading is in fourth place this year, with an increase of 0.7%, reaching 5.2%. Statoil is fifth, but has shown a loss of 1.7% with 5.0%. In 2015, five companies hold a market share greater than 5%.

WINGAS has seen a 1.4% drop with 4.4%. Lampiris has shown a slight drop (-0.2%), but is still in seventh place (4.2%). Vattenfall Energy Trading Netherlands is showing the largest growth in terms of volume (3.6%). In view of the fact that it only performed a very limited number of provisions in 2015, its growth in terms of volume almost corresponds with its market share (3.6%). The market share of newcomer ArcelorMittal Energy S.C.A. has immediately obtained 2.4%. Gas Natural Fenosa has dropped slightly (-1.4%), to 1.9% of the market share. SEGE (Société européenne de Gestion de l'Énergie) has seen a slight drop to 1.6%. Eneco België BV has also suffered a slight loss, at 1.4 %. Enel Trade has seen its share increase from 1.2% to 1.3%. Total Gas & Power has progressed by 0.2% and takes last place in the rankings, with a market share greater than 1% (1.1%).

The other active system users are Antargaz, Belgian Eco Energy, Direct Energie Belgium, E.ON Global Commodities (which has since changed its name to Uniper Global Commodities), Enovos Luxembourg, European Energy Pooling, GETEC ENERGIE, NATGAS and Progress Energy Services. All of these companies each have a market share of less than 1%. The nine companies jointly hold a market of share of just 2.4%.

As at the 31 December 2015, thirty-six system users held a federal supply permit. Twenty-three of them conducted, over the course of 2015, operations on the transmission system for shipping natural gas to Belgian end customers. By way of comparison, at the end of 2007, just six system users were operating on the Fluxys Belgium transmission system for supplies to Belgian end customers.

89 Opinion (A)151113-CDC-1474 relating to an individual natural gas supply permit granted to Bayerngas Vertrieb GmbH. By ministerial decree of 10 December 2015, an individual natural gas supply permit has been granted to Bayerngas Vertrieb GmbH (Moniteur belge, 18 December 2015).
90 Opinion (A)151210-CDC-1491 relating to an individual natural gas supply permit granted to Essent Belgium NV.
91 Opinion (A)151217-CDC-1492 relating to an individual natural gas supply permit granted to Enovos Luxembourg SA.
92 On this matter, it should be noted that this evaluation is based on figures related to shipping activities as disclosed by the transmission system operator, such as they are communicated by the transmission system operator.

Table 13: Companies active in 2015 on the Belgian market for shipping natural gas - Changes compared with 2014 (source: CREG)

Volume routed in Belgium (in TWh)* Market share in Belgium (in %)	2014		2015		Δ2015/2014	
	TWh	%	TWh	%	(%)**	(%-point)***
ANTARGAZ SA	0.09	0.057	0.26	0.147	181	0.09
ARCELORMITTAL ENERGY SCA	0.00	0.000	4.25	2.416		2.42
BELGIAN ECO ENERGY NV	0.04	0.027	0.09	0.049	99.5	0.02
DIRECT ENERGIE	0.00	0.000	0.06	0.034	8902	0.03
EDF LUMINUS	15.47	9.646	16.94	9.637	9.5	-0.01
ELECTRABEL ENGIE	49.46	30.835	55.23	31.418	11.7	0.58
ENECO BELGIË BV	2.37	1.476	2.45	1.396	3.7	-0.08
ENEL TRADE SpA	0.28	0.175	2.33	1.326	728	1.15
ENI SpA	46.33	28.883	43.00	24.461	-7.2	-4.42
ENOVOS LUXEMBOURG SA	0.62	0.387	0.45	0.253	-28.2	-0.13
EUROPEAN ENERGY POOLING	0.20	0.122	0.44	0.248	122	0.13
GAS NATURAL EUROPE	5.16	3.218	3.27	1.859	-36.7	-1.36
GETEC ENERGIE AG	0.27	0.166	0.26	0.150	-0.8	-0.02
LAMPIRIS SA	7.13	4.442	7.43	4.225	4.2	-0.22
NATGAS AKTIENGESELLSCHAFT	0.99	0.617	1.55	0.881	56.5	0.26
PROGRESS ENERGY SERVICES	0.09	0.057	0.24	0.137	166	0.08
RWE SUPPLY & TRADING GmbH	7.16	4.463	9.09	5.169	26.9	0.71
SOC. EUROP. DE GESTION DE L'ENERGIE SA	2.68	1.673	2.88	1.639	7.4	-0.03
STATOIL ASA	10.66	6.647	8.78	4.992	-17.7	-1.65
TOTAL GAS & POWER Ltd	1.42	0.882	1.95	1.110	37.9	0.23
UNIPER GLOBAL COMMODITIES SE	0.77	0.482	0.90	0.513	16.8	0.03
VATTENFALL ENERGY TRADING NETHERLANDS NV	0.00	0.000	6.28	3.575		3.57
WINGAS GmbH	9.21	5.744	7.67	4.364	-16.7	-1.38
Final total	160.4	100.0	175.8	100.0	9.6	

* These figures only concern supplies to customers connected to the transmission system and to the offtake points on the distribution systems. For separate statistics on supplies to customers connected to the transmission and distribution systems, please consult the joint publication of the four energy regulators on the CREG website (www.creg.be).
** Relative change in 2015 compared with 2014 (2014 is the baseline).
*** Absolute change in market share.

4.1.1.2. Price caps

Readers are referred to section 3.1.2.2 hereof which applies mutatis mutandis to natural gas.

The social price cap (excluding VAT and other taxes) for the natural gas supply, for the period of 1 February 2015 to 31 July 2015 inclusive, is €c3,244/kWh (€0.03244/kWh). This tariff is expressed without the federal contribution, protected customer surcharge and connection fee (Wallonia). Other taxes relating to system tariffs (transmission and/or distribution) are included.

The social price cap (excluding VAT and other taxes) for the natural gas supply, for the period of 1 August 2015 to 31 January 2016 inclusive, is €c3,155/kWh (€0.03155/kWh). This tariff is expressed without the federal contribution, protected customer surcharge and connection fee (Wallonia). Other taxes relating to system tariffs (transmission and/or distribution) are included.

4.1.1.3. Trends in and fundamentals of the natural gas price

Readers are referred to section 3.1.2.3 hereof, which also applies to natural gas.

4.1.2. Transmission and distribution

4.1.2.1. Unbundling and certification of TSOs

■ *FLUXYS BELGIUM*

Following the decision made on 27 September 2012 relating to the certification request of Fluxys Belgium, the latter has raised the call option relating to the rTr channel in January 2015 and took possession of it on 15 September 2015.

As part of the integration of the Belgian and Luxembourg systems (see also section 4.1.3.3 hereof), Fluxys Belgium

and Creos, the Luxembourg transmission network operator, founded, on 7 May 2015, the jointly-run Balansys company, in which both companies each hold a 50% share.

Some modifications were made within the Fluxys group in 2015.

On 7 December 2015, Fluxys Belgium took over trading services from Huberator (90% stake in Fluxys Europe subsidiary), allowing it to expand the range of services it offers to shippers from 2016 onwards. The remaining 10% remain the property of Gasbridge 1 and Gasbridge 2, in which Fluxys Europe and SNAM each hold a 50% stake.

Fluxys Europe and Enagas agreed, on 23 March 2015, to each acquire 50% of Swedegas from EQT Infrastructure Ltd Swedegas holds some 600 km of high pressure gas pipelines, as well as the Skallen underground gas storage facility located in Sweden.

On 29 December 2015, Fluxys Europe transferred its entire stake of 25% in Interconnector (UK) Ltd to Fluxys UK Ltd, a 100% stake subsidiary of Fluxys Europe. Additionally, Fluxys Europe has created a new subsidiary (Fluxys Interconnector Ltd) which holds a 10% stake in Interconnector (UK) Ltd.

Mr Andries Gryffroy was appointed administrator to the Fluxys Belgium Board of Directors in May 2015, having been put forward by Publigas. His term will come to an end during the ordinary general meeting of May 2021. Mr François Fontaine was appointed government Commissioner by the federal government.

Mr Pascal De Buck has held the presidency of the Management Board of Fluxys Belgium since 1 January 2015 and performs the role of Managing Director, replacing Mr Walter Peeraer. Fluxys Belgium's Management Board is made up of three members, namely Messrs Pascal De Buck (Chief Executive Officer), Paul Tummers (Chief Financial Officer) and Peter Verhaeghe (Chief Technical Officer).

■ *Interconnector (UK) Ltd*

By Decision of 11 July 2013, the CREG approved the request for certification from Interconnector (UK) Ltd (hereafter: "IUK") on condition, however, of certain conditions that IUK had to meet before 3 March 2015.

In view of the fact that not all of these conditions would be met by 3 March 2015, the CREG began, on 26 February 2015, a certification process with regards to IUK, in cooperation with Ofgem, the British regulatory authority. On 18 June 2015, the CREG submitted a draft decision in this respect[93] and sent it to the European Commission for their opinion. The opinion was given on 20 August 2015[94].

On 9 October 2015, the CREG gave a favourable final decision[95] concerning the IUK certification. The Gazprom shares were sold to Fluxys Interconnector Ltd on 17 December 2015.

The IUK shareholders at the end of 2015 comprised of the following: Fluxys UK Ltd (25%), Caisse de Dépôt et Placement du Québec (23.5%), Gasbridge 1 (15.75%), Gasbridge 2 (15.75%), CDP Groupe Infrastructures Inc. (10%) and Fluxys Interconnector Ltd (10%).

Mr Denis Sergeevich Anokhin, Gazprom representative, is no longer a member of the IUK Board of Directors, as of 29 May 2015.

4.1.2.2. Corporate governance

Within the control framework of the application of article 8/3 of the gas act and the assessment of its efficiency with regards to the independence and impartiality objectives of the operators, the CREG acknowledged receipt of the activity reports of Fluxys Belgium and Fluxys LNG's company governance committee for the year 2014.

It also examined the report from the Compliance Officer on observance of the programme of commitments by employees of Fluxys Belgium and Fluxys LNG in 2014. This programme must ensure that there is no discriminatory treatment of system users and/or categories of system users. The CREG has particularly requested that, in future, separate reports be submitted by Fluxys Belgium and Fluxys LNG, given that both companies carry out separate activities. In December 2015, the CREG received the 2016 audit programmes from Fluxys Belgium and Fluxys LNG, which must ensure the observance of the non-discrimination requirements.

Finally, in June 2015, the CREG gave its assent[96] relating to the mandate renewal of an independent administrator of Fluxys Belgium.

93 Draft decision (B)150618-CDC-1429 relating to the opening of a certification procedure with regards to Interconnector (UK) Ltd.
94 European Commission opinion of 20 August 2015, given in application of article 3, paragraph 1, of Regulation no. 715/2009/EC and article 10, paragraph 6 of Directive 2009/73/EC - Belgium and Great Britain - Interconnector (UK) Ltd certification.
95 Final decision (B)151009-CDC-1429 relating to the opening of a certification procedure with regards to Interconnector (UK) Ltd.
96 Opinion (A)150611-CDC-1425 relating to the independence of an independent administrator on the Fluxys Belgium SA Board of Directors.

4.1.2.3. Technical operation

A. Natural gas transmission permits

To build and operate its natural gas facilities, the TSO, Fluxys Belgium, has to submit an application for a transmission permit to the Directorate-General for Energy. The CREG has the power to issue opinions on such applications.

In 2015, the CREG passed fourteen favourable opinions[97] for transmission permit applications or endorsement for existing permits.

B. The balancing model

Developments relating to the new market-based balancing model in effect from 1 October 2012, summarised in the 2013 Annual Report (pages 55-56), are still applicable in 2015. The reader is also invited to read point E below, in particular the CREG's Decision of 20 May 2015 relating to the modification proposal of the standard natural gas transmission contract, of the access regulations for the transmission of natural gas and for the natural gas transmission programme that aims to integrate the Belgian and Luxembourg gas markets (BeLux project).

C. Regulations governing system security and reliability, and standards and requirements for quality of service and supply

To comply with Article 133 of the Code of Conduct, the natural gas transmission system operator applies a monitoring system that tracks the quality and reliability of its transmission system operations and the natural gas transmission services provided.

In particular, this monitoring system makes it possible to determine quality criteria in terms of:
- frequency of service interruptions and/or reductions;
- average duration of service interruptions and/or reductions;
- causes and remedies for these service interruptions and/or reductions;
- portfolio of natural gas transmission services offered.

There were no service interruptions or reductions in 2015.

D. Time taken by the transmission system operator to carry out connections and repairs

In accordance with the Gas Law, the CREG is responsible for monitoring the time taken by the natural gas transmission system operator to carry out connections and repairs.

In 2015, four new connections were created for end customers and one for public distribution. The creation of these new connections took 41, 53, 23, 29 and 33 months respectively.

Unlike in previous years, in 2015 no repairs were carried out in relation to accidents or incidents. The only repairs were those that took place within the framework of maintenance periods. The twelve repairs under scheduled maintenance periods were carried out to avoid any impact on service delivery. All scheduled operations were for a limited time (usually one day) and were conducted in conjunction with the end user and/or shippers concerned.

E. Code of Conduct

• Natural gas transmission

On 10 May 2012, the CREG approved the standard natural gas transmission contract, the access rules and the natural gas transmission programme put forward by Fluxys Belgium and thereby gave the go-ahead for the implementation of a new transmission model as of 1 October 2012. This new transmission model, known as Entry/Exit, greatly simplifies access to the Fluxys Belgium transmission system and creates the conditions necessary to improve the fluidity of the natural gas market. Amongst other things, it provides easy access to the natural gas transmission system for all market players, the creation of a trading space where, in addition to bilateral trading (OTC), an anonymous (exchange) stock market offers services to market players and a market-orientated balancing system through which Fluxys Belgium buys or sells natural gas on the anonymous exchange to maintain the balance of the system.

The services offered are largely in line with the basic principles set out by the CREG for the new transmission model. Specifically:

- an extensive portfolio of transmission services is made available to market players;
- transmission services at entry points can be reserved independently of transmission services at offtake points;
- no distinction is made between transit and internal transmission;
- the possibility of reserving transmission services for a minimum of one day is provided;
- the maximum period for the reservation of transmission services at entry and offtake points on the transmission system is not limited;

97 See opinions 1397, 1401, 1406, 1415, 1428, 1432, 1434, 1435, 1443, 1444, 1455, 1468, 1481 and 1486: their full titles are given under section 5.11 hereof.

- the supply and nature (closed, interruptible) of the transmission services in the new transmission model have not been reduced further to the transition;
- the transmission services can be easily reserved by means of an electronic reservation system available 24/7;
- a virtual trading space has been created for natural gas;
- all the market players (including end customers) can trade in natural gas in this trading space in a very simple manner and then carry the gas to the destination of their choice;
- access to the transmission market and the natural gas trading market has been greatly simplified and improved in structural terms.

Each system user wishing to reserve transmission services or have access to the Fluxys Belgium information and reservation systems must first sign the standard contract for natural gas transmission services. This standard contract provides the means to access the natural gas transmission system and the transmission systems operated by Fluxys Belgium. The system user is registered as a client of Fluxys Belgium and can reserve transmission services as of the subscription date. Depending on their requirements, the system user can reserve the transmission services by means of a written procedure or via the automatic reservation system, available 24/7. In addition to the shippers, traders and suppliers, the end customer can also access the natural gas transmission system and the natural gas stock market using the same methods.

The offtake capacity of end customers connected to the distribution system no longer has to be reserved, but is allocated on a monthly basis by Fluxys Belgium. This greatly simplifies access to the household market and small and medium-sized enterprises. In fact, there is no longer any need for suppliers to reserve offtake capacity for end customers on the distribution network in advance, whereas in the past this was a complicated technical process, especially for newcomers to the market. Moreover, the offtake capacity is calculated and allocated in the same way for each shipper/supplier, which creates a level playing field and avoids any discrimination.

At the same time that the entry/exit model was implemented in October 2012, a proactive congestion policy was set up in cooperation with the market stakeholders and integrated into the Fluxys Belgium natural gas access regulations. The basic principles are as follows: Fluxys Belgium supplies a maximum entry/exit capacity, the system users (shippers) offer their subscribed but unused capacity on the secondary market, and the use of the capacity is subject to constant monitoring. In the event of congestion, the CREG will intervene depending on the information that has been provided by Fluxys Belgium and the shippers in question. Thanks to this policy, no congestion has yet been reported to date on the gas transmission system. European regulations also include a series of provisions with regards to congestion, including the Long Term Use-It-Or-Lose-It system (LT UIOLI). The previously subscribed but unused capacity is therefore returned to the market, and can be used to prevent congestion and make better use of the system. This LT UIOLI obligation has also already been integrated in Belgium, in the access regulations relating to natural gas transmission, since 2012. However, the European legislative framework has not always been very clear regarding the application of the LT UIOLI system. A guidance document, notably published on the CREG's website on 8 April 2015, which is the result of a shared initiative of the Belgian (CREG), Dutch (ACM) and British (OFGEM) regulators, specifies the criteria applied to the implementation of the LT UILOI system. The CREG's role is to ensure the system is operating correctly and, where applicable, to take any measures necessary.

In 2015, the CREG issued six decisions relating to amendments proposed by Fluxys Belgium to the standard contract for natural gas transmission, the natural gas transmission programme and the access rules for natural gas transmission:

- ***Decision of 26 March 2015 relating to the amendments to the standard contract for natural gas transmission, the natural gas transmission programme and Annexes A, B, C1, and G of the access rules for natural gas transmission***

By its letter of 16 March 2015, Fluxys Belgium submitted to the CREG a permit application for amendments made to the standard contract, the natural gas transmission programme and Annexes A, B, C1 and G of the access rules for natural gas transmission.

With these modifications, Fluxys Belgium foresees:
- the introduction of new interconnection points between France and Belgium, resulting from the future entry into service of the new pipeline that will connect the Dunkirk terminal to the Belgian system;
- the introduction of a new service, the "Cross Border Delivery Service", which directly connects the Dunkirk terminal to the Belgian transmission system.

The amendments made take into account feedback received from system users, following the market consultation organised on 2 February 2015 and 20 February 2015.

In its Decision of 26 March 2015[98], the CREG approved the proposed amendments and decided that they would come into effect on the 2 April 2015.

98 Decision (B)150326-CDC-1414 relating to the amendments proposed by Fluxys Belgium to the standard contract for natural gas transmission, the natural gas transmission programme and Annexes A, B, C1 and G of the access rules for natural gas transmission.

- *Decision of 20 May 2015 relating to the amendments to the standard contract for natural gas transmission, the natural gas transmission programme and the access rules for natural gas transmission*

By letters dated 15 April 2015, Fluxys Belgium submitted to the CREG a permit application for amendments to the standard contract for natural gas transmission, the access rules for natural gas transmission and the natural gas transmission programme.

The aim of the proposed amendments is to integrate the Belgian and Luxembourg gas markets (BeLux project). They apply to:

- the removal of all provisions relating to balancing;
- the removal of the interconnection points between Belgium and Luxembourg from the list of interconnection points for capacity sales;
- the introduction of some text adaptations, limited to provisions relating to the quality conversion service;
- the removal of the reshuffling service;
- the adaptation of the billing process through the introduction of "self-billing";
- the revision of Annex F of the access rules for transmission, concerning the incident management plan.

Additionally, on 13 May 2015, Fluxys Belgium submitted an amendment proposal for the access rules of natural gas transmission and the natural gas transmission programme approved by the CREG on 26 March 2015 (decision (B)150326-CDC-1414 mentioned above), as well as the associated consultation report. These amendments were indispensable in order to continue the guarantee, from 1 October 2015, pending the entry into effect of the legal framework required for the integration of balancing regimes of Belgium and Luxembourg's gas markets, the balancing of the system through the implementation of transition measures, as part of which Fluxys Belgium continues to honour all commitments and tasks related to balancing. In this context, Fluxys Belgium has also submitted a new amendment proposal for the standard contract for natural gas transmission to the CREG to replace the amendment proposal for the standard contract for natural gas transmission that was initially submitted.

All these amendments have been subject to a large-scale market consultation by Fluxys Belgium.

The CREG has decided[99] to approve the amendments proposed by Fluxys Belgium, with the exception of some specific articles. Furthermore, subject to certain condition precedents, the CREG has decided that the approved provisions will come into effect on the launch date of the BeLux integration project on 1 October 2015.

- *Decision of 17 September 2015 concerning the permit application for amendments to the standard contract for natural gas transmission, the natural gas transmission programme and Annexes A, B, C1, C3, E, G and H of the access rules for natural gas transmission*

On 4 August 2015, Fluxys Belgium submitted to the CREG a permit application for amendments made to the standard contract for natural gas transmission, the natural gas transmission programme and certain Annexes of the access rules for natural gas transmission.

By means of these amendments, Fluxys Belgium would like to adapt its services offered on the contractual and operational level to the implementation of the CAM network code that will come into effect on 1 November 2015. In view of simplifying the transmission model even further, Fluxys Belgium has also proposed the total integration of the hub's services into its services offer. The amendments take into account feedback received from system users, following the market consultation organised in the spring of 2015.

In its Decision of 17 September 2015[100], the CREG stated that the provisions set out in the CAM network code have not been fully implemented and that the integration of the hub's services shows significant shortcomings, both at the contractual and the operational level. That is why the CREG has decided not to approve all of the proposed amendments and has invited Fluxys Belgium to draw up a new proposal (see below for the Decision of 29 October 2015).

- *Decision of 29 October 2015 relating to the permit application for the adapted proposal of the standard contract for natural gas transmission, the natural gas transmission programme and Annexes A, B, C1, C3, E, G and H of the access rules for natural gas transmission*

In mid-October 2015, Fluxys Belgium submitted a modified permit application to the CREG for amendments to certain contracts. The purpose of these amendments is to adapt the services offer for the introduction of the Capacity Allocation Mechanisms network code. Fluxys Belgium also indicates that the integration of the hub's services will take place at a later date. As this involves Interconnection Agreements, progress updates will be given as part of the implementation of the network code on interoperability rules. Finally, amendments made to the services offer for certain types of end customers will be subject to consultation and will be submitted for approval separately.

By its Decision of 29 October 2015[101], the CREG has approved the proposed amendments and has decided that they will come into effect as of 1 November 2015.

99 Decision (B)150520-CDC-1420 relating to the amendments to the standard contract for natural gas transmission, the natural gas transmission programme and the access rules for natural gas transmission by Fluxys Belgium.

100 Decision (B)150917-CDC-1457 concerning the permit application for amendments to the standard contract for natural gas transmission, the natural gas transmission programme and annexes A, B, C1, C3, E, G, H, as well as the new annex C5, of the access rules for natural gas transmission by Fluxys Belgium.

101 Decision (B)151029-CDC-1469 relating to the permit application for the adapted proposal of the standard contract for natural gas transmission, the natural gas transmission programme and Annexes A, B, C1, C3, E, G and H of the access rules for natural gas transmission by Fluxys Belgium.

- *Decision of 10 December 2015 on the amendments made to Appendix 1 of Annex B of the access rules for natural gas transmission*

By Decision of the 10 December 2015[102], the CREG has approved the integration - for information purposes for shippers - of the Dutch version of the terms and conditions for the use of the PRISMA Capacities Platform applied by the latter from 1 October 2015 in Appendix 1 of Annex B of the access rules for natural gas transmission, submitted by Fluxys Belgium to the CREG on 16 September 2015.

- *Decision of 17 December 2015 relating to the permit application for the adapted proposal of the standard contract for natural gas transmission, the natural gas transmission programme and Annexes A, B and G of the access rules for natural gas transmission by Fluxys Belgium*

At the start of December 2015, Fluxys Belgium submitted to the CREG a permit application for amendments to the natural gas transmission programme and Annexes A, B and G of the access rules for natural gas transmission.

The purpose was to offer a new service to end customers that are directly connected to the transmission system (such as power stations and industrial end customers) in addition to the current offer of annual, seasonal and short-term services. This new service will be sold under the name Fix/Flex. Furthermore, the proposed amendments will offer system users the option of subscribing to services on a calendar day basis.

In its decision reached on 17 December 2015[103], the CREG approved the proposed amendments. They came into force on 1 January 2016.

F. Measures to safeguard security of supply

The European Commission's Gas Coordination Group coordinates the application of Regulation (EU) No 994/2010[104] of 20 October 2010 which aims to safeguard security of natural gas supply in Europe. The CREG represents Belgium in the European Coordination Group, alongside the designated competent authority, namely the Directorate General for Energy. In addition to discussing the preventative action plans and emergency plans of the European Member States, special attention has been paid to the amendment of Regulation (EU) No 994/2010 in 2015. The CREG assists the competent authority in the application of Regulation (EU) No 994/2010 in Belgium. In this context, the CREG primarily focuses on the optimisation of market instruments that aim to safeguard security of supply. Residual risks require appropriate intervention on the part of the authorities, which is likely to be integrated within the operation of the market. The CREG was able to work in close conjunction with the Directorate-General for Energy thereby assuming its responsibility as the competent authority. The CREG has provided assistance, notably for the creation of the annual security of supply monitoring report[105].

In 2014, the European Commission took the initiative of revising the aforementioned Regulation (EU) No 994/2010 in view of the publication of a new regulation proposal at the beginning of 2016[106]. In this context, and in close collaboration with the European Commission, the CEER set up a task force on 26 November 2014 in order to help the European Commission with the update and to publish their opinion with regards to security of supply on behalf of the European energy regulators. In 2015, the task force drew up two documents in collaboration with representatives from the European Commission, based on the ongoing revision of the regulation[107]. The CREG serves as vice-president of the task force.

As part of its remit to monitor and check the application of the Code of Conduct (see also section 4.1.2.3.E hereof), the CREG monitored balancing on the transmission system for H-gas and L-gas in 2015, and found no critical problems in managing the system's balance. The current system balancing model puts a heavy responsibility on system users, and the system operator now has only to provide residual balancing, if necessary. The market-based balancing mechanism is closely monitored and the CREG believes it to be a successful and important mechanism that also contributes to ensuring the continuity of natural gas supplies for all end users. The

102 Decision (B)151210-CDC-1489 relating to the amendments proposed by Fluxys Belgium to Appendix 1 of Annex B of the access rules for natural gas transmission.
103 Decision (B)151217-CDC-1495 relating to the permit application for the adapted proposal of the standard contract for natural gas transmission, the natural gas transmission programme and Annexes A, B and G of the access rules for natural gas transmission by Fluxys Belgium.
104 Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/CE. Published on 12 November 2010 and in application since 3 December 2010.
105 http://economie.fgov.be/nl/binaries/Yearly_monitoring_report_2014_tcm325-275087.pdf
106 On 16 February 2016, the European Commission published the proposal of a new regulation relating to security of supply (https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-gas-and-heating-and-cooling-strategy). The proposal will now be discussed by the European Council and European Parliament in view of official publication during the first quarter of 2017. Needless to say, the current regulation remains in effect until this date.
107 CEER Response Paper: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Gas/2015/C15-GWG-118-03_EC_SoS_consultation_CEER_final_150407.pdf CEER Concept Paper: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Gas/2015/C15-GWG-122-04_SoS%20concept%20paper_21072015.pdf

Belgian balancing area for H-gas was expanded on 1 October 2015 through the merger with the Luxembourg natural gas market. Ever since this date, the same balancing rules apply to both markets that have merged into a single balancing area with just one trading platform (the existing Zeebrugge Trading Platform - ZTP) and a single entry/exit area. Market-based balancing in the single area is organised by Fluxys Belgium pending the allocation of this responsibility to the separate company (Balansys) created by Fluxys Belgium and the Luxembourg transmission system operator, CREOS (see section 4.1.3.3 hereof).

G. Pipeline access between Zeebrugge and Bacton

By Decision of 9 October 2015[108], the CREG has approved the access documents it received from Interconnector (UK) Ltd. The access contract, the access regulations and the system user contract comprise the framework contract for users of the pipeline between Zeebrugge and Bacton. The rating test mentioned in the access contract has not been approved. As for future amendments, the CREG invites Interconnector (UK) Ltd to take into account the comments arising from its decision.

4.1.2.4. System and LNG tariffs

A. Transmission system, storage and LNG

a) Tariff methodology

■ *Transmission, storage and LNG*

As announced in its Annual Report of 2014, the CREG adopted, on 18 December 2014, its tariff methodology for the natural gas transmission system, the natural gas storage facility and the LNG facility, in view of an application for the regulatory period 2016-2019 with regards to the natural gas transmission system and the natural gas storage facility[109].

This tariff methodology comprises of the rules that the natural gas transmission system, storage facility and LNG facility operator must adhere to for the preparation, creation and submission of their tariff proposal for the regulatory period 2016-2019 and on which the CREG has based itself to approve the resulting tariffs (please read point b) Tariff trends, below).

■ *Interconnector (UK)*

On 1 October 2018, a large quantity of capacity will be freed up for the transmission of natural gas between Belgium and the United Kingdom by means of the underwater pipeline operated by Interconnector (UK). To this end, the latter has organised a sales procedure and a consultation on the matter of tariff methodology. The CREG and Ofgem, the British regulator, approved this methodology in July 2015. More specifically, the CREG has decided[110], on the one hand, to approve Interconnector (UK)'s tariff methodology (excluding differential pricing) relating to the transmission services that were sold before 1 November 2015 for use starting from 1 October 2018 gas day, and in accordance with the conditions of the access contract concluded with Interconnector (UK) and the Interconnector (UK) access rules, and, on the other hand, to commit Interconnector (UK) to providing them with a detailed report of the tariffs applied, actual costs, revenue and profit, on a yearly basis.

b) Tariff trends

■ *Transmission and storage tariffs*

• 2015

Fluxys Belgium's natural gas transmission storage tariffs for the year 2015 are identical to those for 2014, excluding the rate of inflation. By the Decision of 13 September 2012 (see Annual Report 2012, page 18), the CREG effectively approved Fluxys Belgium's tariffs for the years 2012-2015.

• 2016-2019

On 29 October 2015, the CREG approved[111] the revised tariff proposal from Fluxys Belgium relating to the transmission system connection and operating tariffs, as well as the storage services and ancillary services for the years 2016-2019.

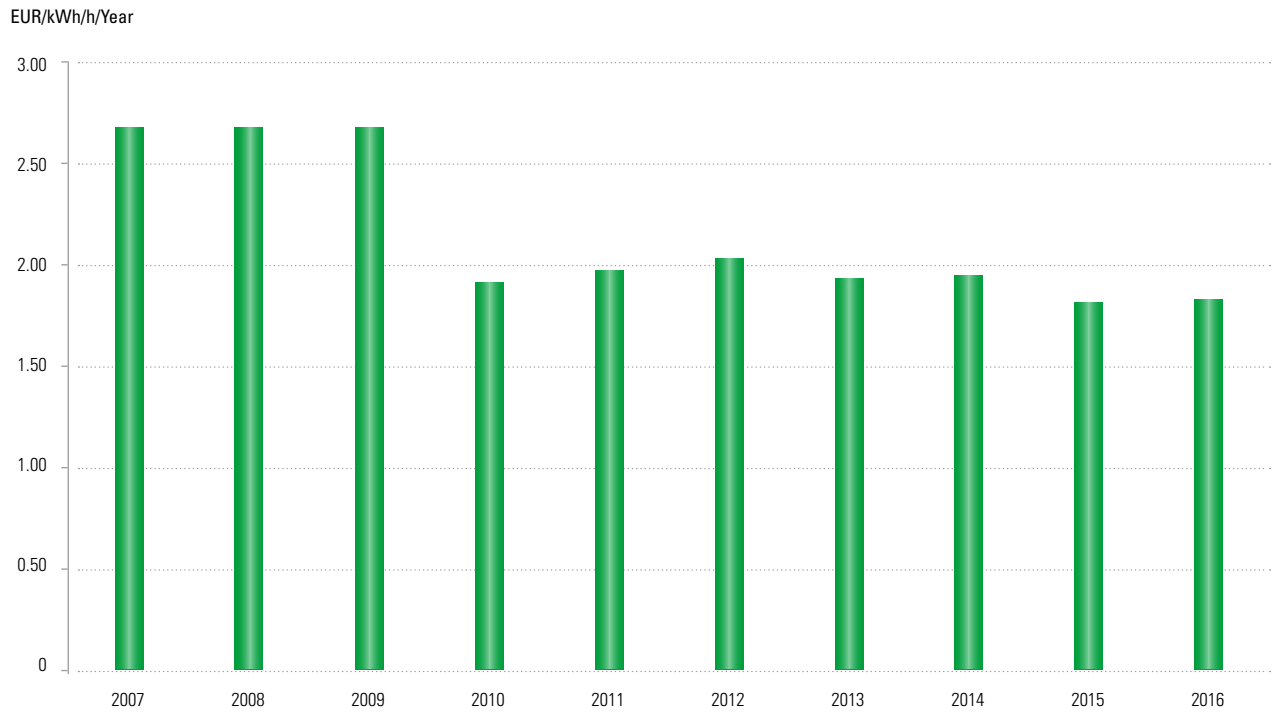
108 Decision (B)151009-000-1465 concerning the proposal submitted by Interconnector (UK) Ltd for the access contract concluded with IUK, Access Rules concluded with IUK and the System User Contract for access to the Zeebrugge - Bacton Interconnector.

109 Regarding LNG infrastructures, the CREG had already made a decision on the matter on 30 September 2004, based on the Royal Decree of 15 December 2003, in which it approved Fluxys LNG's multi-annual tariff proposal used for the capacities of the LNG terminal in Zeebrugge after 2006 and valid until the year 2026. On 29 November 2012, the CREG adopted Decision (B) 121129-CDC-657G/06 relating to the tariff proposal updated by Fluxys LNG, thereby prolonging the duration of the application of the tariffs until 1 April 2027. The new decree in no way infringes upon this decision and, on the contrary, it gives it a new legal basis.

110 Decision (B)150730-CDC-1442/1 relating to the tariff methodology relating to the access contract concluded with Interconnector (UK) and the Interconnector (UK) access rules.

111 Decision (B)151029-CDC-656G/31 relating to the tariff proposal from Fluxys Belgium SA relating to the connection and operation of transmission system tariffs as well as the storage services and ancillary services for the years 2016-2019.

Figure 19: Fluxys Belgium's tariff trends for natural gas transmission (entry/exit tariffs for H-gas) between 2007 and 2016 (source: CREG)



The European regulation establishing a network code for the balancing of gas transmission systems came into effect on 1 October 2015. This date also marked a significant event in the integration process of the Belgian and Luxembourg gas markets. In this respect, the CREG approved, following a proposal from Fluxys Belgium, the calculation method[112] and tariffs[113] relating to the natural gas transmission system balancing. Luxembourg's regulator, ILR, has done the same, following the proposal from Balansys, Luxembourg's balancing system coordinator. The shared BeLux balancing area can therefore be created (see also section 4.1.3.3 hereof).

■ *LNG terminal tariffs*

Fluxys LNG's tariffs for the year 2015 for the operation of the facilities at the LNG terminal at Zeebrugge are the same as those for 2014, excluding the rate of inflation. By the Decision of 29 November 2012 (see Annual Report 2013, pages 18-19), the CREG had already approved an updated version of the tariffs, valid from 1 January 2013 until 31 March 2027, confirming the real tariff level of the tariffs approved by its Decision of 30 September 2004.

c) Balances

■ *Fluxys Belgium SA*

In its draft Decision of 7 May 2015[114] based on the annual tariff report and the tariff settlement for the financial year 2014 submitted by Fluxys Belgium to the CREG on 26 February 2015, the CREG decided that Fluxys Belgium needed to amend its tariff report to obtain approval regarding 2014's operating balances.

In view of the amended tariff settlement of 29 May 2015 that Fluxys Belgium submitted to the CREG to scrutinise tariffs for the financial year 2014, the CREG decided[115] that the application of the tariffs in 2014 has resulted in a provision made to the accrual account:

- of 50,234,195 euros for the transmission activity, of which the balance was 300,807,167 euros at 31 December 2014, and
- of 10,136,028 euros for the storage activity, of which the balance was -7,962,225 euros at 31 December 2014.

112 Decision (B)150903-CDC-656G/29 on the calculation method for balancing fees for the purposes of neutrality and the calculation method for daily and intra-daily unbalancing fees with regards to the value of small adjustments.
113 Decision (B)150903-CDC-656G/30 on the balancing fees for the purposes of neutrality and the value of small adjustments.
114 Draft decision (B)150507-CDC-656G/27 on the tariff report including the balance sheets sent by Fluxys Belgium concerning the operations for the financial year 2014.
115 Decision (B)150611-CDC-656G/28 on the revised tariff report including the balance sheets sent by Fluxys Belgium concerning the operations for the financial year 2014.

Additionally, the CREG has decided that the application of tariffs in 2014 has led to an increase in global efficiency, for both activities combined, of 16,490,910 euros, which will be advantageous for the fair margin.

■ *Fluxys LNG SA*

In view of the tariff settlement of 26 February 2015 that Fluxys LNG submitted to the CREG to scrutinise tariffs for the 2014 financial year, the CREG decided[116] that the application of the tariffs for the regulated terminalling activity in 2014 has resulted in the addition of 14,037,233 euros to the accruals account, that had a balance 127,175,551 euros at 31 December 2014.

B. Distribution systems

Readers are referred to section 3.1.3.5.B hereof.

4.1.3. Cross-border issues and market integration

4.1.3.1. Access to cross-border infrastructures

Under the new European TEN-E Regulation No 347/2013[117], the project promoters may, during a biannual selection, submit investment projects to the European Commission with a view to securing Project of Common Interest status (hereafter: PCI - Project of Common Interest). Only projects spanning at least one national border within the European Union can be considered. PCI status enables a project to benefit from faster and more efficient permit-granting procedures and revised regulatory conditions. In addition, a cost-benefit analysis of PCI projects for the various countries within such projects' impact zones is conducted, with a view to possible cross-border cost allocations in the event that projects cannot otherwise be completed. There can be no subsidies from the European Commission to help finance the necessary work other than as a last resort, i.e. if the market cannot finance the cost of the investment and if significant positive externalities are nonetheless linked to the project, such as market integration, competition, security of natural gas supplies and sustainability.

During the second PCI projects selection cycle, Belgium submitted the L/H conversion project to the European Commission (see section 4.4.2 hereof). This Fluxys Belgium project has been grouped together with France's conversion project, put forward by GRTgaz and GDF. The series of European PCI projects proposed was then evaluated in 2015 in "regional groupings" under the aegis of the European Commission. In view of the fact that Fluxys Belgium's L/H conversion project is still not solidified with regards to cross-border issues, it may prove difficult to have it taken into account for the final selection of PCI projects published on 18 November 2015 by the European Commission[118]. As the list of European PCI projects is updated every two years, there is, of course, nothing stopping them from resubmitting the project once it is better established.

The list of European PCI projects is, therefore, updated every two years and checked by the respective European regional working groups. The CREG's working groups monitor these activities for our region (NSI Gas West)[119]. Besides its involvement in the PCI selection and monitoring processes, the CREG is helping to successfully enforce the new TEN-E 347/2013 Regulation in close conjunction with the other regulators and the ACER. This includes, amongst other things, the assessment of costs and benefits for Belgium possibly included in the PCI projects abroad and a possible cost compensation resulting from these foreign projects. Until now, Belgium has not been in receipt of any possible cross-border cost compensation for the completion of PCI.

4.1.3.2. Analysis of the TSO's investment plan as regards consistency with the network development plan across the European Union

Readers are referred to section 4.4.2 hereof.

4.1.3.3. Market integration

• CREG's market integration analysis

The market integration analysis[120] carried out by the CREG in 2015 for the year 2014 revealed the following facts.

The Belgian natural gas market (160.4 TWh in 2014) represents, along with the natural gas markets of the neighbouring countries (2,559 TWh in 2014), around 58% of European natural gas consumption (EU-28: 4,418 TWh). Increasingly larger natural gas transactions to Belgium are carried out via the Netherlands: from 109 TWh in 2011 to 189 TWh in 2013 and 158 TWh in 2014. Belgium is a large natural gas market, from which France, primarily, draws it supplies. Net natural gas transactions to France were equal to 198 TWh in 2014, which is around 47% of France's natural gas requirements. Over the 2011-2014 period, natural gas transactions with Germany have seen a rapid change in exit flows to Germany and entry flows to Belgium (net entry flow of 4 TWh in 2013,

116 Decision(B)150507-CDC-657G/11 on the tariff report including the balance sheets sent by Fluxys LNG concerning the operations for financial year 2014.
117 Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009. Published on 25 April 2013 and in application since 5 May 2013.
118 https://ec.europa.eu/energy/sites/ener/files/documents/5_2%20PCI%20annex.pdf
119 North-South gas interconnections in Western Europe.
120 Study (F)151015-CDC-1460 relating to the operation and trend of prices on the Belgian wholesale natural gas market – surveillance report 2014. See also section 4.2.1.1 hereof.

followed by a net exit flow of 7 TWh in 2014). The Grand Duchy of Luxembourg takes around 47% of its supplies from the Belgian natural gas market. The net entry flow from the United Kingdom was still at 97 TWh in 2011, before suddenly changing into a net exit flow to the British market with a volume of 8 TWh in 2013. However, in 2014, a large new net entry flow was noted from the United Kingdom of 44 TWh.

The Belgian natural gas market has a transmission system offering sufficient transmission capacity for cross-border natural gas transactions in both directions. This contractual congestion-free situation on the transmission system promotes integration with neighbouring markets (TTF in the Netherlands, Gaspool and NCG in Germany, PEG Nord in France and NBP in Great Britain).

L-Gas is bought in the Netherlands both for the Belgian market and for transactions on the French L-Gas market. L-Gas transactions from the Dutch TTF trading point to the Belgian ZTP trading point totalled 98.38 TWh in 2011 and 103.68 TWh in 2012 before reaching 104.47 TWh in 2013, followed by a drop in 2014 of up to 86.26 TWh, primarily due to mild temperatures. The share negotiated in the French PEG Nord trading area amounted to 48.68 TWh in 2011 and 51.86 TWh before slightly dropping to 50.7 TWh in 2013 and 42.11 TWh in 2014.

Figure 21 uses multi-coloured lines to show the average annual day-ahead gas prices (DAA), for Belgium (ZTP), the Netherlands (TTF) and Germany (NCG, Gaspool) respectively (in euros/MW). These lines almost coincide, which shows that fluid cross-border natural gas trade is possible between these three countries (at least for H-gas). The black line shows the average annual year ahead gas price (Y+1) for the Netherlands (NCG, Gaspool); given the almost perfect convergence of prices on the short-term market, the long-term prices for the Netherlands and Germany can also be used as a reference for the Belgian market.

Both the day ahead price and the year ahead price had a rating, in 2015, that was quite close to 20 euros/MWh. This shows, for both products, a significant drop compared to 2013, during which they had a rating above 26 euros/MWh.

Figure 20: Net natural gas transactions (H-Gas) between the ZTP market and the border markets during the period 2011-2014 (in TWh/year) (sources: CREG, gasdata.fluxys.com data)

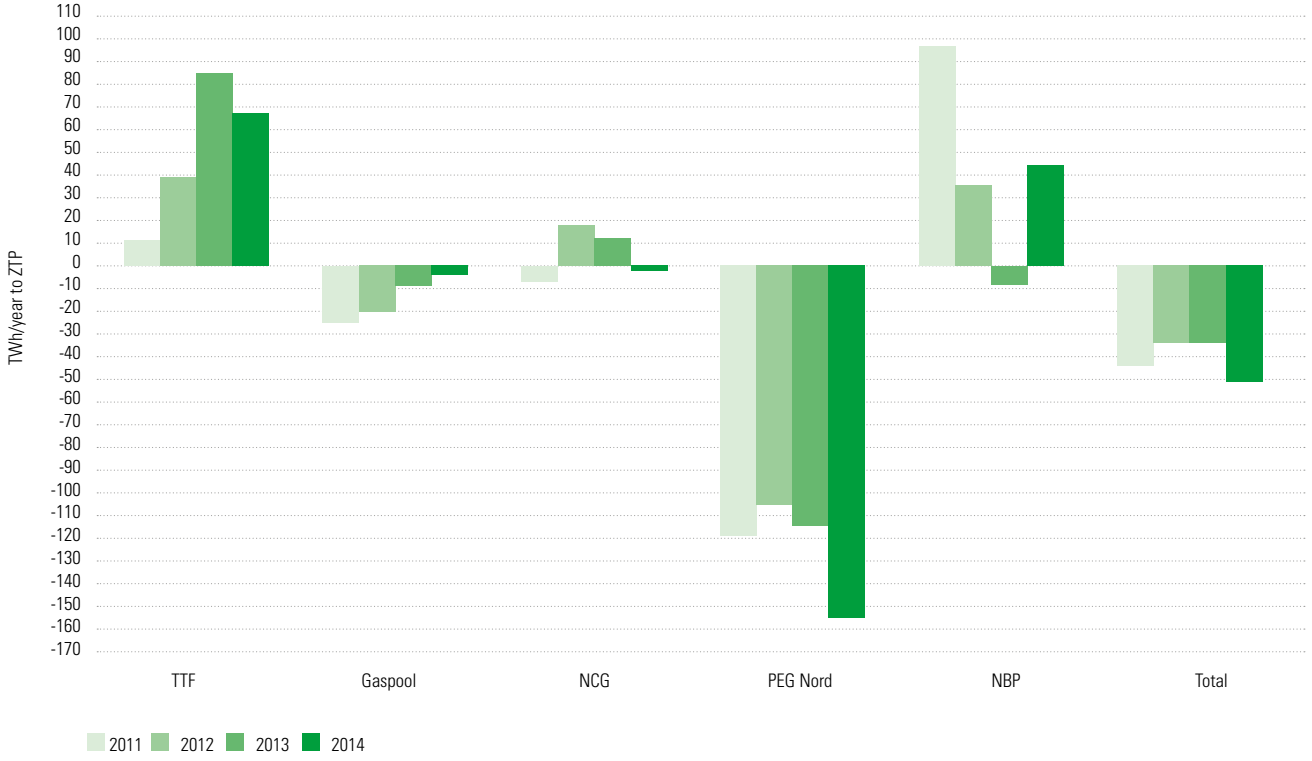
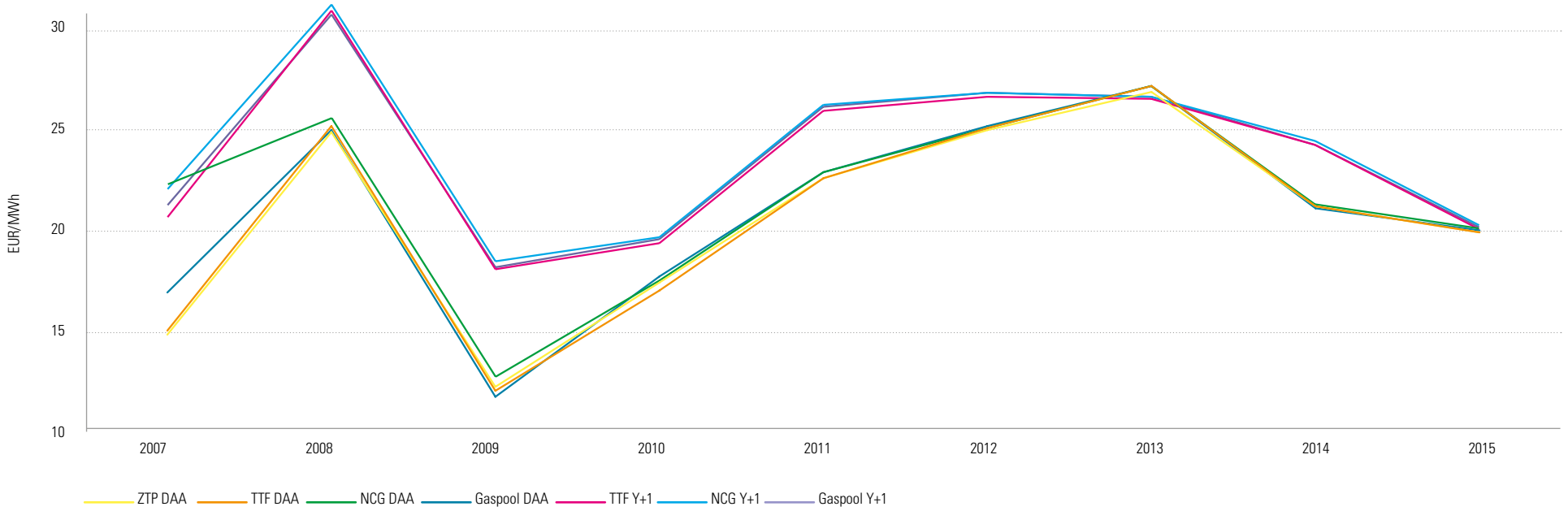


Figure 21: Average annual gas price on the day ahead and year ahead markets (sources: CREG, data taken from icis.com, ice.com, eex.com, powernext.com)



- **Case study: Integration of the Belgian and Luxembourg markets**

The transmission system operators GRT CREOS LUXEMBOURG and Fluxys Belgium, in collaboration with their respective national regulatory authorities, the ILR (Luxembourg Regulatory Institution) and the CREG, have worked together closely on the integration of their national gas markets into a single BeLux market[121], starting from 1 October 2015. A single gas balancing zone covering both countries has been established through the implementation of a single entry/exit system with a shared balancing scheme and a single notional trading point (ZTP hub). This initiative is the first market integration project between two European Member States. The following figure provides an overview of the project.

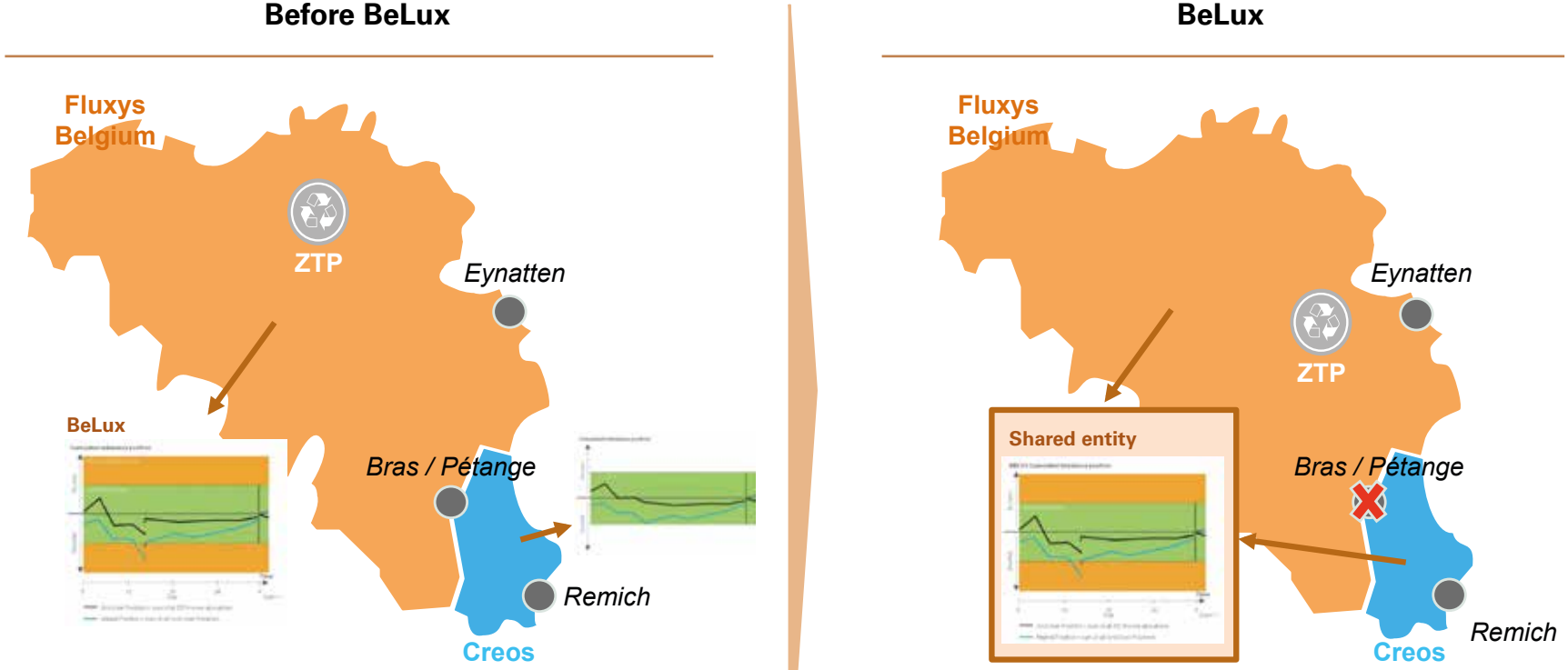
Prior to 1 October 2015, the two markets had independent national entry/exit systems between which access fees were applied[122]. Since the integration, these entry/exit fees are no longer applicable[123] and the ZTP has become the sole gas trading point on the BeLux market. Additionally, the same balancing rules apply and a shared entity has been created to manage the balancing of the integrated market[124].

At the same time, both transmission system operators have retained their own separate identity and organisational structure.

In view of the consumption of 20 bcm/year and the 70 suppliers active on the BeLux market, competition on the integrated market will increase and the liquidity and price signalling role of the ZTP will improve. Furthermore, the close relationship between the BeLux market and the neighbouring markets (United Kingdom, France, Germany and Netherlands) will reduce the risk of price isolation.

121 Belgian demand and Luxembourg demand represented 161 and 11 TWh/year respectively in 2014.
122 For gas transmission from Belgium to Luxembourg, the suppliers have an exit permit in Belgium and an entry permit in Luxembourg.
123 Following the withdrawal of the trading offer at the cross-border interconnection point (Bras/Pétange), system users will no longer have to reserve the gas capacity to be transmitted between Belgium and Luxembourg.
124 Founded on 7 May 2015, Balansys is the shared balancing company (see http://www.balansys.eu), but it has not yet been active in 2015 in the integrated balancing area, because it has not yet received certain regulatory authorisations that make it compliant with Belgian Gas Law. In the meantime, Fluxys Belgium is carrying out Balansys's balancing tasks. This approach does not have any impact on the market integration, which has been in effect since 1 October 2015.

Figure 22: The integration project of the Belgo-Luxembourg cross-border markets (sources: Fluxys Belgium, CREOS, ILR, CREG coordination)



- Two entry/exit markets with capacity fees between them
- Separate gas trading point in Belgium
- Two separate sets of regulations

- Single E/E market making use of existing means of the transmission system operators
- Single gas trading point at BeLux ZTP
- Set of harmonised balancing regulations; a shared balancing contract)

The merging of the markets improves the ZTP hub's liquidity and supplier flexibility, encouraging them to operate in both countries. Additionally, it will allow Luxembourg to increase the security of its supply in gas and improve access to a more competitive gas market for Luxembourg's consumers. Luxembourg suppliers now have simplified supply options thanks to direct access to the ZTP and the Belgian storage and LNG facilities. Additionally, they can now manage their coupled portfolios according to the actual consumption of their customers.

4.2. Competition

4.2.1. Monitoring wholesale and retail prices

4.2.1.1. CREG studies in 2015

• SME and independent users on the energy market

Readers are referred to section 3.2.1.1 hereof.

• Composition of prices

Readers are referred to section 3.2.1.1 hereof.

• European comparison of prices to large industrial customers

Readers are referred to section 3.2.1.1 hereof.

• Supplier shareholders

Readers are referred to section 3.2.1.1 hereof.

• Price operation and trends on the Belgian wholesale natural gas market – surveillance report 2014

As was the case in 2014, this year the CREG examined[125] price operations and trends on the Belgian wholesale natural gas market. The study looks back on the past eight years (2007-2014); the year 2007 was chosen as it precedes the financial and economic crisis. As such, the reader can easily understand the evolution of the wholesale natural gas market.

The study reveals that market operations have improved again in 2014. Price trends are also based more on the market.

A few key points from the study:

- The long-term supplies provided around 75% of the Belgian market's natural gas requirements (160 TWh) in 2014; 25% were bought on the trading markets.
- 57% of the contract volumes changed depending on gas prices. This type of indexing is becoming the norm.
- Together, the top three suppliers (ENGIE, ENI GAS & POWER and EDF LUMINUS) had a market share, for the first time, of slightly less than 70%. Supply to Belgian customers remained strongly concentrated in 2014.
- The Belgian natural gas market has a transmission system that - without contractual congestion for cross-border natural gas transactions in both directions - favours integration with neighbouring markets. The result is that the natural gas wholesale price (day ahead) during the 2011-2014 period was, on average, 0.13 euros/MWh less than that of the neighbouring markets.
- In north-western Europe, there is an integrated wholesale market (day-ahead) for natural gas with a convergent natural gas price. This indicates an established arbitration between the markets in the trading of natural gas, healthy competition and a large measure of economic efficiency.

• Study on the prices used on the Belgian natural gas market in 2014

On 26 November 2015, the CREG conducted a study on the prices in force on the Belgian natural gas market in 2014[126] in which it analyses market shares, price formation, price levels, price breakdown and billing in the different sectors of the Belgian natural gas market in 2014. The study notably covers the gross sales margins on the different market sectors and on the types of indexing.

The main observations revealed by the study are as follows:

- the natural gas market is becoming increasingly more open to competition each year with the continued arrival of new suppliers;
- gas prices were the main vector of the prices billed to industrial customers;
- oil prices are only used, on average, in less than 10% of industrial contracts;
- for residential customers, 2014 was the first year during which gas prices were the only vector used for the indexing of the energy component of the variable prices.

• Portfolio of supplier products

Readers are referred to section 3.2.1.1 hereof.

4.2.1.2. Safety net

Readers are referred to section 3.2.1.2 hereof.

4.2.2. Monitoring market transparency and openness

• The REMIT Regulation

Readers are referred to section 3.2.2.4 hereof.

• Charter of best practices for electricity and gas price comparison websites

Readers are referred to section 3.2.2.5 hereof.

125 Study (F)151015-CDC-1460 relating to the operation and trend of prices on the Belgian wholesale natural gas market – surveillance report 2014.
126 Study (F)151126-CDC-1485 on the prices used on the Belgian natural gas market in 2014.

4.2.3. Supply price recommendations

Readers are referred to section 3.2.3 hereof.

4.3. Consumer protection

Readers are referred to section 3.3 hereof.

4.4. Security of supply

4.4.1. Monitoring the balance between supply and demand

A. Natural gas demand

In 2015, total natural gas consumption amounted to 175.8 TWh, which represents a large increase (+9.6%) compared with consumption in 2014 (160.4 TWh). To that, it should be added that temperatures in 2014 were exceptionally mild and that, although they weren't very different from a normal year, in 2015 they gave rise to an increase in heating requirements of more than 15% according to estimations. This observation partly explains the 10.6% increase in demand for natural gas on the distribution systems. Under these conditions, the share of the natural gas offtake on the distribution systems was 50.1% in 2015 (as opposed to 49.6% in 2014). It should be noted that after years of reduction, the natural gas consumption of large consumers is once again increasing. Industrial natural gas consumption has increased by 4.8% and natural gas consumption for the production of electricity by 12.5%. This increase is notably explained by the net decrease in natural gas prices observed on the wholesale markets. On average, the natural gas price on these markets was around 20 euros/MWh, with a lowest price of up to 16 euros/MWh in December 2015, while over previous years natural gas prices were noticeably higher (for example, 26 euros/MWh on average in 2013).

The H-gas share has also increased slightly in 2015 (+0.4%). It stood at 72.8% of the quantity of energy supplied, with the L-gas share therefore being 27.2%. The change in 2015 is particularly notable in view of the 2015 increase in consumption on the distribution systems (+10.6%). On this consumer sector, the L-gas share (47.2%) is almost equal to that of H-gas (52.8%). Natural gas supply to industrial customers, of which the H-gas market share is high (85.5%), has seen a slight increase (+4.8%). Natural gas-fired plants have already been entirely converted to H-gas. Natural gas consumption in this sector has increased by 12.4% in 2015.

Figure 23: Breakdown per user segment of the Belgian demand for H-gas and L-gas in 2014 and 2015. (source: CREG)

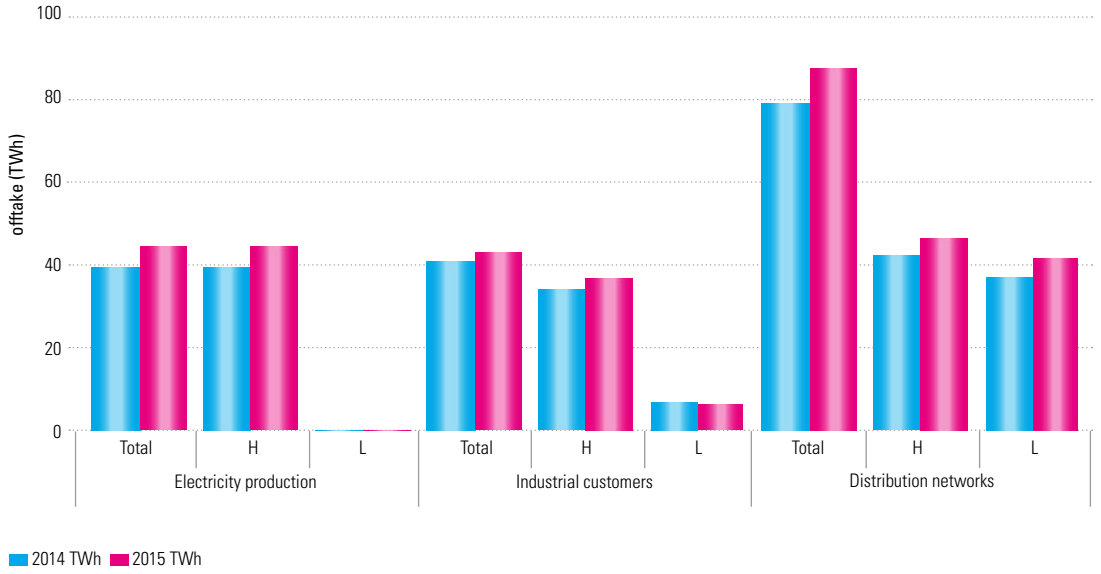
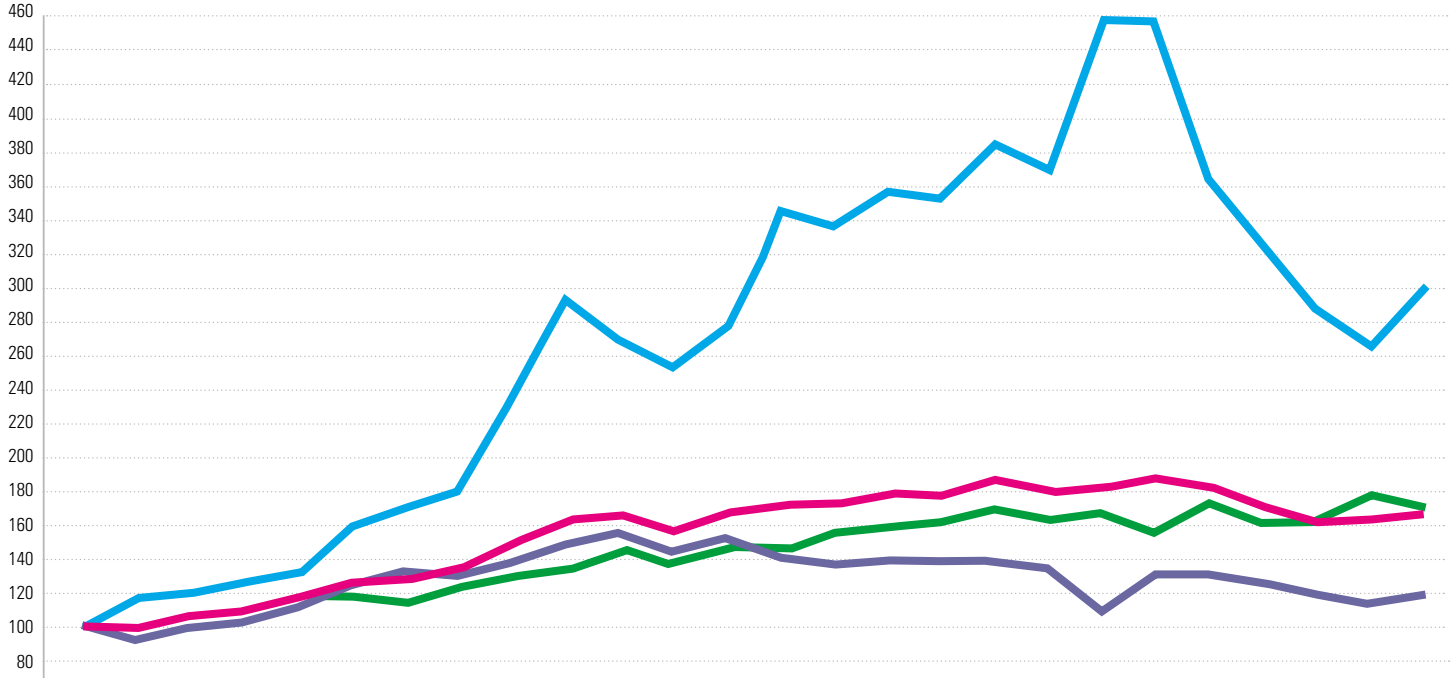


Table 14: Breakdown per user segment of Belgian demand for natural gas between 2002 and 2015 (in TWh) (source: CREG)

Sectors	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2015/2014
Distribution	78.3	83.1	88.3	87.2	88.3	82.6	88.5	87.6	101.2	82.5	91.9	97.9	79.6	88.1	+10.6
Industry (direct customers)	54.7	50.7	49.3	50.2	50.2	50.0	47.8	39.2	46.9	47.0	45.5	42.8	41.1	43.1	+4.8
Electricity generation (centralised facilities)	40.9	51.1	49.7	52.5	51.9	56.7	54.6	67.3	67.1	53.9	48.1	42.5	39.7	44.6	+12.5
Total	173.9	184.9	187.3	189.9	190.4	189.3	190.9	194.2	215.3	183.4	185.6	183.2	160.4	175.8	+9.6

Figure 24: Development of natural gas consumption per user segment during the 1990-2015 period (1990=100), corrected for climate variations (source: CREG)



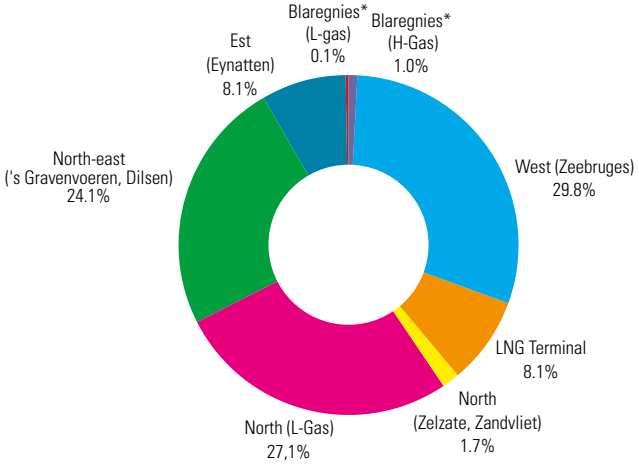
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
household & equivalent	100	99	105	109	116	116	113	122	129	134	143	137	146	145	155	158	162	169	164	166	157	173	164	163	179	173
industry	100	92	100	103	111	124	132	131	138	149	155	145	152	141	137	140	139	139	132	109	130	130	126	119	114	120
electricity production	100	118	122	127	133	161	171	180	240	295	271	255	278	348	338	357	353	386	372	458	457	367	328	289	270	303
total	100	99	105	109	116	125	129	134	148	162	165	156	166	171	172	177	178	186	179	182	186	182	170	161	164	168

B. Natural gas supply

Natural gas suppliers can choose from a series of entry points on the natural gas transmission system to both carry out national and international natural gas transactions and to supply their Belgian customers with H-gas. Natural gas customers who use L-gas are supplied directly from the Netherlands or indirectly, against the flow, via the Blaregnies interconnection point with France. LNG imports, mainly from Qatar via the Zeebrugge terminal, accounted for a share of 8.1% of the average import portfolio in 2015 for the Belgian market. Zeebrugge is the main supply point for Belgian natural gas consumers and, in 2015, had a share of 29.8%. In virtual terms, however, imports did take place via the Blaregnies interconnection point in France, for both H-gas and L-gas, owing to nominations against the flow of natural gas flows from border to border which are initially intended for the French market.

The supply portfolios of the individual natural gas suppliers resulted, globally, in a differentiated supply depending on the type of contract. The share of long-term contracts concluded directly with natural gas producers with a remaining duration in excess of five years continued to drop (48.2% in 2015 compared to 51.1% in 2014 and 55.5% in 2013) but still constituted the main component. The total supply provided through supply contracts concluded with natural gas producers directly was at 59.9% (63.8% in 2014). Net supply on the wholesale market recorded an increase in 2015 to 40.1% (36.3% in 2014). Long-term contracts signed with natural gas producers remain the basis of the portfolios of the major suppliers on the Belgian market, but an increasing number of suppliers holding a smaller share of the market are taking supplies from the wholesale market.

Figure 25: Breakdown of incoming natural gas by entry zone in 2015 (source: CREG)



* The Blaregnies entry points are used "against the flow" of the actual flows (reverse flow), making use of the predominant transit flows at these points.

Figure 26: Composition of the aggregated supply portfolio of suppliers operating in Belgium in 2015 (source: CREG)

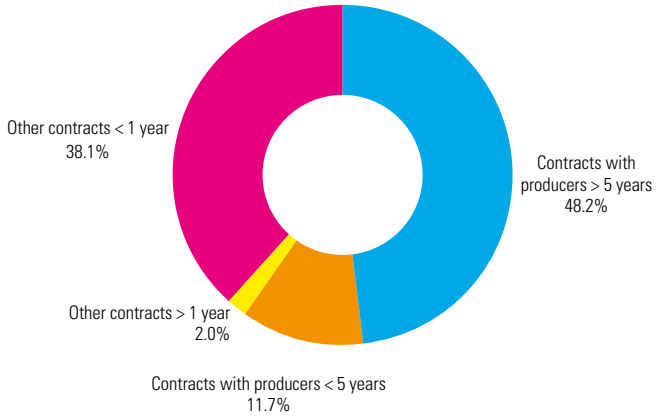
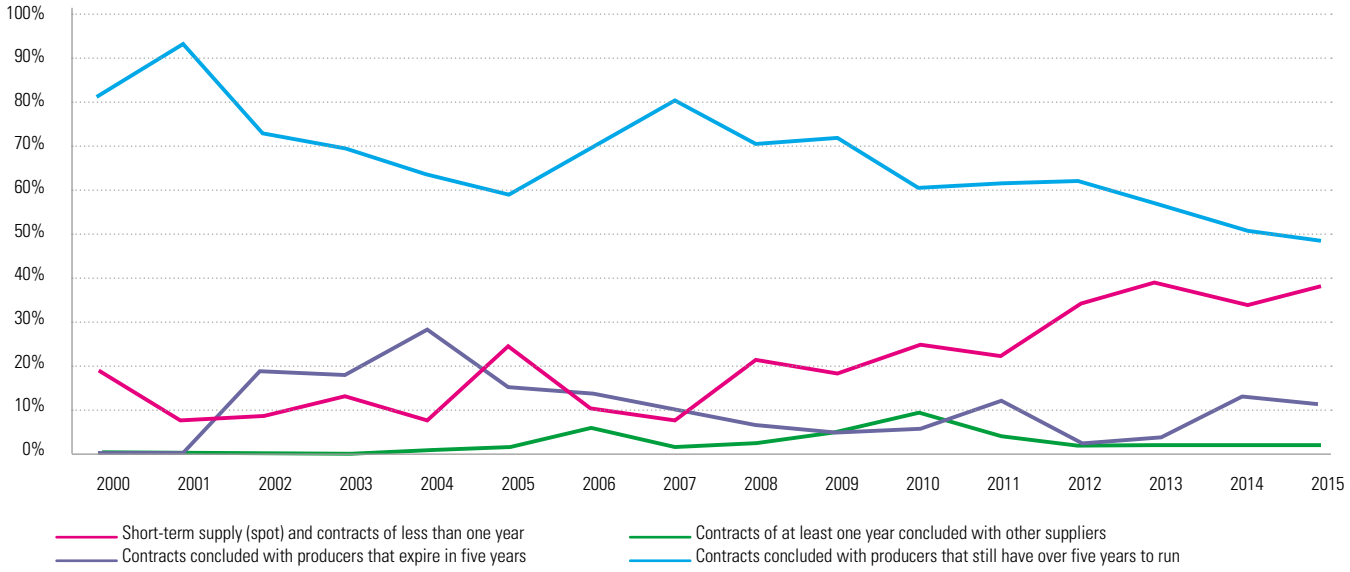
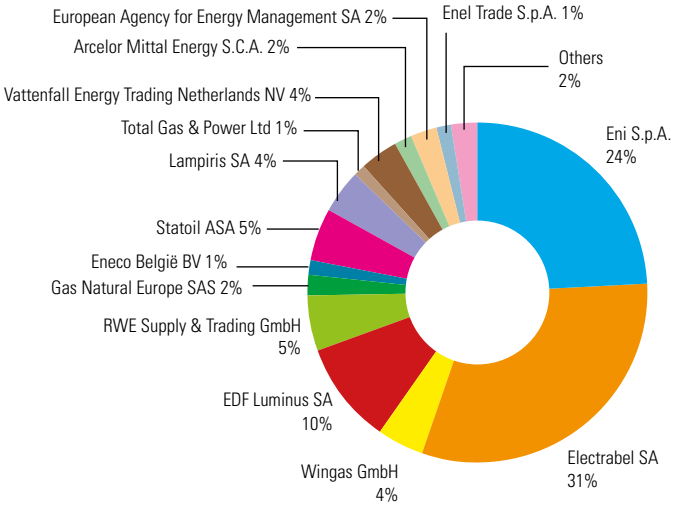


Figure 27: Composition of the aggregated supply portfolio for the Belgian natural gas market in 2000-2015 (shares in %) (Source: CREG)



In 2015, a total of 23 supply companies were operating on the Belgian market (as opposed to 22 in 2014). Electrabel (Engie), 31% (31% in 2014), and ENU S.p.A., 24% (29% in 2014), together cover 55% (60% in 2014 and 64% in 2013) of natural gas supply to wholesale consumers directly connected to the transmission system and the distribution systems. The third largest supplier was EDF Luminus, who held a stable market share of 10% in 2015. The remaining 20 supply companies (together accounting for a market share of 35%) each held a market share of a maximum of 5%, and 9 of these did not even reach 1%. Although the market remains highly concentrated, increased pressure is being exerted by emerging companies which are competing with one another to acquire a share of the Belgian natural gas market.

Figure 28: Market share of supply companies on the transmission system in 2015 (source: CREG)



* Others: supply companies who each have a market share of less than 1% (Progress Energy Services BVBA, Uniper Global Commodities SE, natGAS AG, Belgian Eco Energy NV, Enovos Luxembourg SA, Energy Pooling BVBA, Antargaz SA, GETEC ENERGY AG, Direct Energie).

4.4.2. Monitoring TSO investment plans

The natural gas transmission system, operated by Fluxys Belgium, has developed in such a way that it has become an important intersection for transmission pipelines in north west Europe, reporting a record level in terms of coupling with neighbouring transmission systems. Import capacity increased to more than ten million cubic metres of natural gas per hour (100 GWh/hour) with natural gas flowing in both directions and no congestion problems. This maturity explains why no significant investment in extensions are directly planned. The need to replace some elements of some facilities will however increase.

There are some unfavourable developments making decisions to invest further in extensions less clear-cut. Demand for natural gas is generally stagnating or even shrinking, and is also showing increased volatility. Short-term transmission capacity orders continue to increase without, however, showing any commitments in long-term transmission contracts for the transmission system operators.

In 2015, Fluxys Belgium drafted a ten-year plan concerning the development of the system (2016-2025), in accordance with article 15/1, paragraph 5 of the Gas Law. The CREG evaluated this plan in parallel with the ENTSOG's 10-year European investment plan (TYNDP 2015) and the north-west Europe transmission system operators' regional investment plan (GRIP) and found no issues. The current major challenge is the conversion of the separate L-Gas transmission system with the aim of evolving towards a Belgian natural gas market supplied exclusively with H-Gas. This conversion is necessary because no new long-term contracts will be concluded with the Netherlands for the supply of L-Gas, given the way in which the Netherlands is managing the remaining stocks of L-Gas.

Furthermore, the Dutch government is constantly taking more drastic measures to limit the extraction of the L-Gas remaining in Groningenveld because of the risk of earthquakes in the north of the Netherlands. In 2015, the CREG continued its collaboration with Fluxys Belgium in view of developing an effective L/H conversion plan for the natural gas transmission system that assures the supply of L-gas to France. Fluxys Belgium has then submitted this conversion plan for information purposes to the distribution system operators that are part of Synergrid for any improvements to be made before its publication at the start of 2016.

The Alveringem-Maldegem gas pipeline which connects the new LNG terminal in Dunkirk to the Belgian transmission system is an important investment project which was launched in 2015. In Belgium, this involves the construction of a new natural gas pipeline running over 72 km, between Alveringem and Maldegem, with entry points for the supply of local natural gas in 2016 in the Ypres region.

A second project concerns the expansion of the Zeebrugge LNG terminal and includes the construction of a second landing station for LNG ships. It is expected to enter into service at the end of August 2016. Large and small LNG ships can be loaded and unloaded at this new landing station. Small LNG ships are increasingly used to supply other ships fuelled by LNG or to supply small bunkering terminals.

A third investment project concerns the construction of a fifth reservoir on the Zeebrugge LNG terminal, with a capacity of 180,000 m³ of LNG (2015-2018). This investment is needed to moor LNG ice-breaker ships from north-east Siberia (Yamal LNG) from 2018. The LNG terminal will be used to unload LNG cargo from traditional LNG ships so they can continue their journey.

Limited annual growth of around 1% on the distribution systems and of the expected development for industrial customers' and power stations' natural gas has given rise to some (local) enlargement, but much less than in previous years. Moreover, carrying out this investment continues to depend on adequate remuneration from the capacity by end users.

The European investment context is shifting. Firstly, there are changes in the demand-side behaviour. Secondly, European regulations are focussing more on building trans-European gas corridors[127], not only helping with the need for physical supply, but also with a view to encouraging market integration, competition, security of supply and sustainability. Cost issues remain of crucial importance to the CREG, and it is obvious that greater attention will be paid to alternative solutions to avoid wasted investment. Cross-border investment decisions are increasingly subject to new factors beyond the national interest.

4.4.3. Forecasts on future demand, available reserves and additional capacity.

• Demand

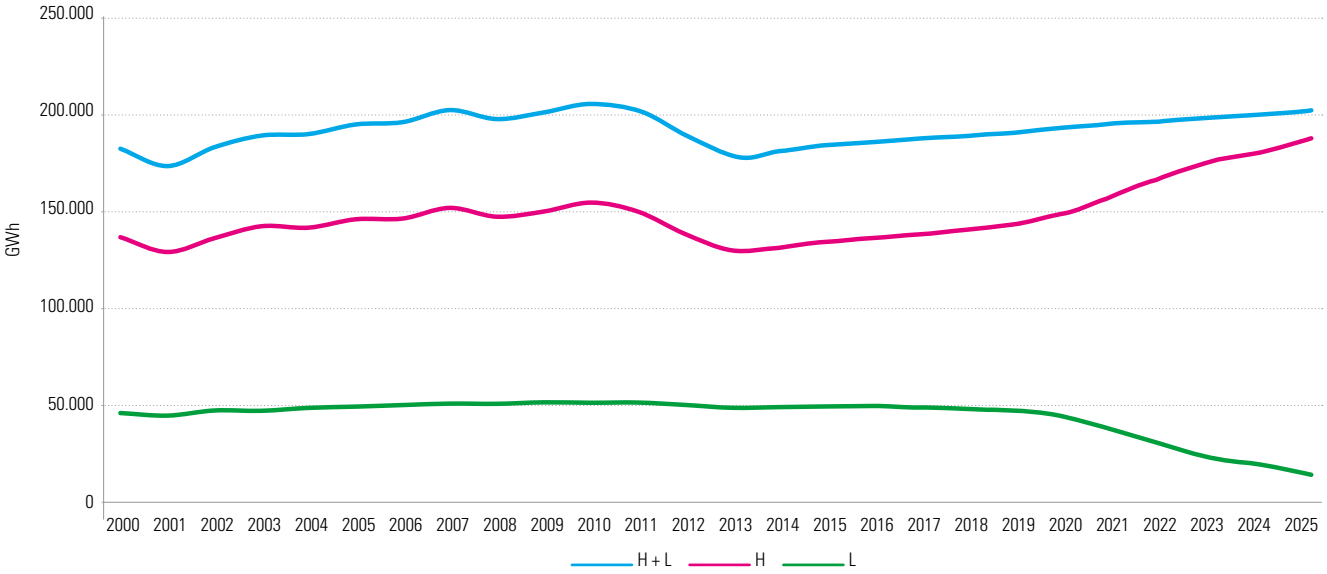
Figure 29 shows the outlook for total natural gas demand in Belgium according to the CREG reference scenario used to follow up the necessary investments made on the Fluxys Belgium system. This total natural gas demand is determined by adding together the expected consumption of the household sector, the tertiary sector, industry and electricity generation. In this case, it involves the normalised trend that takes account of temperature. These forecasts are inevitably extremely hypothetical, given all the current uncertainties.

These predictions may be modified in the short term should the market conditions alter. Above all, there is a great deal of sensitivity regarding the use of existing power plants that run on natural gas, the construction of new power plants, the competitive position of natural gas in the energy mix, especially for wholesale users, the economic forecasts and the future of L-gas supplies from the Netherlands. For L-gas, no new contracts have been signed with the Netherlands due to the reduction in the remaining reserve volumes at Groningenveld gas field. Furthermore, the Dutch government is constantly taking more drastic measures to limit the offtake of the L-Gas remaining in Groningenveld gas field because of the risk of earthquakes in the north of the Netherlands. Therefore, the expansion of the Belgian L-gas market is not an option and a trajectory should be followed for the timely conversion of natural gas customers from L-gas to H-gas. As a result, Belgium will progressively become a market supplied exclusively in H-gas.

• Supply

The number of H-gas importers on the Belgian market increased to 23 as at 31 December 2015. The overall diversification level for all importers combined is very high, in terms of both sources of physical supply and supply routes. The trends that are emerging include a rise in the number of short-term natural gas transactions, a greater volume of business, increased volatility, more international trade-offs and price coupling between European markets. Conditions for attracting and dividing up natural gas flows are favourable in Belgium. Maintaining the liquidity of the market in Belgium is essential both for Belgium's security of supply and for 'exporting' security of supply to other markets in north-western Europe.

Figure 29: Forecast demand for natural gas in Belgium until 2025 (GWh, normalised t, H + L) (Source: CREG)



127 Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009. Published on 25 April 2013 and in application since 5 May 2013.

As for L-gas suppliers, as at 31 December 2015, 19 suppliers depended almost exclusively on the Poppel/Hilvarenbeek interconnection point for supplies from the Netherlands. Changes to the Belgian L-gas market will be heavily determined by the progressive conversion of L-gas customers into H-gas customers.

4.4.4. Covering peak offtake

The peak offtake day for natural gas in 2015 was recorded on Friday 23 January. Belgian natural gas consumption increased to 933 GWh (864 GWh in 2014), which is 1.94 times the average daily consumption. Distribution systems accounted for 63% of peak day offtake, 22% was used in generating electricity, and the remaining 15% was used by industry.

The peak daily consumption of 933 GWh on 23 January 2015 was covered by a range of natural gas sources. Natural gas supply originating from the Netherlands covered 47% of peak demand (22% H-gas and 25% L-gas). Some 28% came directly from the Norwegian gas fields located in the North Sea via the Zeepipe moored at Zeebrugge. In addition, 6% came from the Loenhout underground storage facility, 19% from the Zeebrugge LNG terminal and 0.2% from converting H-gas into L-gas by adding nitrogen at the quality conversion facility run by the system operator, Fluxys Belgium.

Figure 30: Breakdown of the peak offtake by user segment in 2015 (source: CREG)

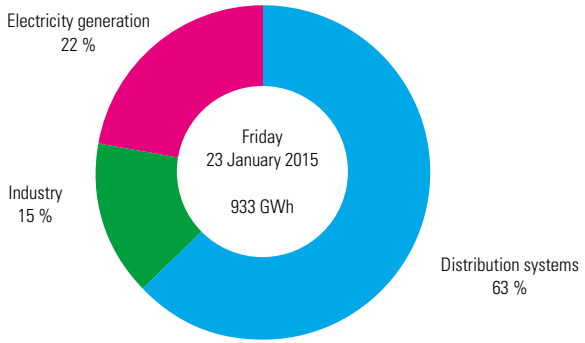


Figure 31: Breakdown of the sources of natural gas to cover the peak offtake in 2015 (source: CREG)