

Belgium

Key issues

The level of market concentration remains high, despite a high switching rate of consumers that tend to reduce the market share of incumbent suppliers on the retail markets.

Due to changes in the generation mix and retirement of generation capacity, risks for security of supply will increase in the upcoming years. Increased cooperation with neighbouring countries and demand side response are required to tackle such risks. Efforts to further integrate the physical grid and electricity markets with neighbouring countries should be pursued. Enhanced interconnection could help to accommodate peaks in demand.

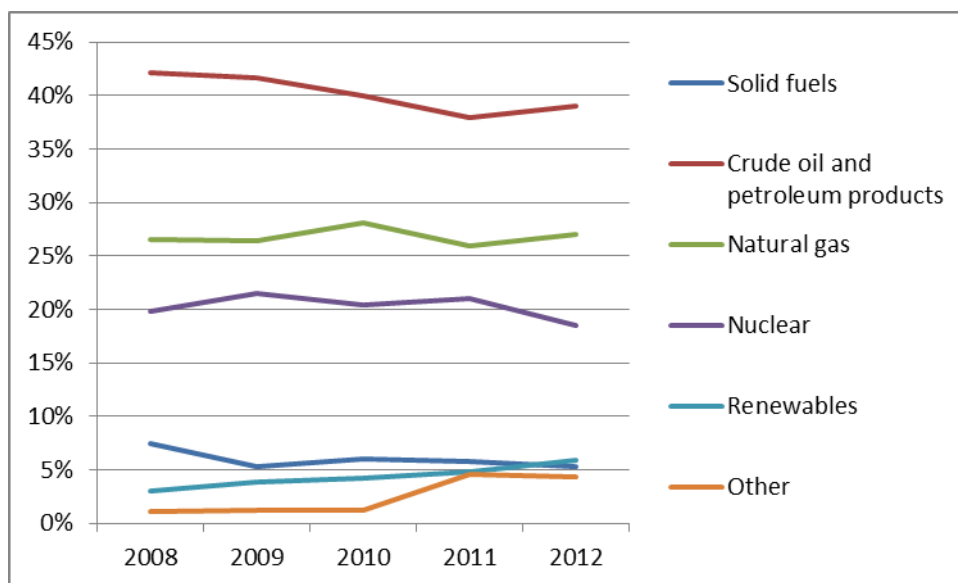
Belgium should take measures to further stimulate consumer empowerment leading to enhanced retail competition. This is necessary to ensure that when decrease in wholesale gas and electricity prices is observed, it is also passed on to the final consumers.

Belgium should also ensure that distribution charges reflect efficient costs of distribution, network operations and development. Proper regulatory oversight at federal as well as regional level is essential to ensure that all network tariffs reflect efficient costs and are incentive based.

1. General overview

Gross energy consumption in 2012 (56.3 Mtoe) was based largely on crude oil and petroleum products (39.0%), natural gas (27.0%), and nuclear energy (18.5%). Solid fuels and renewable energy sources (RES) were less important in the energy mix (with shares of 5.3% and 5.9%, respectively)¹⁹.

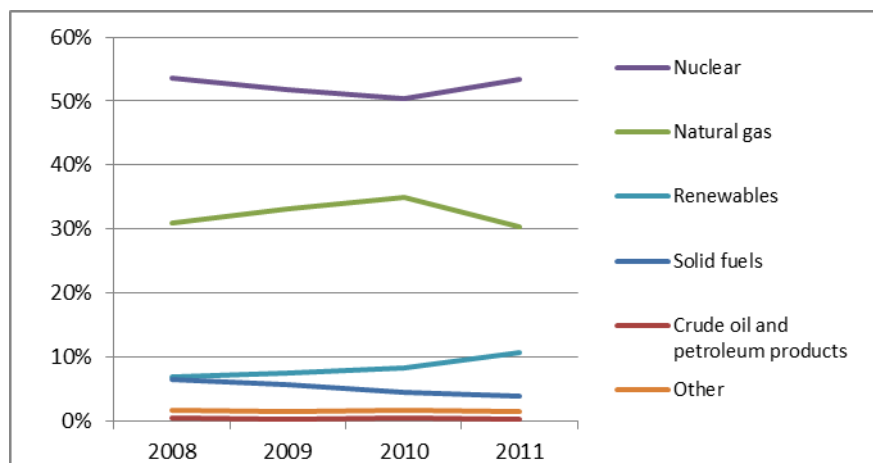
Figure 1: Gross inland consumption mix 2008 – 2012 (source: Eurostat)



¹⁹ Eurostat.

The power generation mix in 2012 (82.9 TWh) was dominated by nuclear power (with a share of 48.6%) and by gas-fired plants (30.9%). RES and solid fuels accounted for 14.2% and 0.12% respectively²⁰. Electricity demand in Belgium decreased by 2.8% in 2012 compared to the 2011 level.²¹

Figure 2: Gross electricity generation mix 2008 – 2011 (source: EU Energy in Figures - Pocketbook 2012 and 2013)



Belgium's renewable energy target is 13 % by 2020²². In 2012, the share of renewables in gross final energy consumption reached 6.8%²³ and the country is on track to achieve its 2020 national RES target. Belgium also has plans to reduce its greenhouse gas emissions by 15%, but these have yet to be aligned with regional initiatives.

2. Regulatory framework

General

The Third Energy Package was transposed into national law by a law issued on 8 January 2012. This resulted in an increase in the powers of the national regulator, while at the same time strengthening consumer protection and increasing the competence of regional authorities.²⁴

The indexation of the energy component of electricity and gas prices was capped provisionally from 1st April 2012 to 31st December 2012. The aim of the Belgian authorities was to increase transparency and price comparability in variable contracts, protecting the consumer against price increases based on opaque indices and information asymmetries. These measures and the subsequent public debate encouraged Belgian consumers to become more price-conscious and ignited their interest in changing providers.

²⁰ http://ec.europa.eu/energy/publications/doc/2014_pocketbook.pdf

²¹ ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012, November 2013.

²² National Reform Programme 2013, April 2013.

²³ Eurostat.

²⁴ CREG, Annual Report 2012, 2013.

To further increase competition and liquidity in the Belgium gas market a new entry-exit transmission model was implemented as of 1st October 2012.

National Regulatory Authority

In January 2014, the Belgian federal energy regulator, the CREG ("*Commission de Régulation de l'Électricité et du Gaz*") employed 64 employees (including 1 president and 3 directors) and had an annual budget of EUR 14,952,254.²⁵ Its independence from the Ministry was increased by the provisions of the law of January 2012 and the decision of the Constitutional Court of 7th August 2013, which confirmed that the regulator had exclusive jurisdiction with respect to application, determination and exemption of tariffs. Since 1st July 2014, the competence for setting distribution tariffs has been transferred to the regions. Regional regulators (CWaPE in Wallonia, VREG in Flanders, BRUGEL in Brussels) are now responsible for the control of tariffs regarding public distribution of gas and electricity (low-voltage ($\leq 70\text{kV}$) or low-pressure networks).

Unbundling

The CREG certified S.A. Elia System Operator (Elia) as the Belgian TSO for electricity as fully ownership unbundled on 6 January 2012, along with S.A. Fluxys Belgium as TSO for natural gas on 12 October 2012 and Interconnector (UK) on 11 July 2013.

Elia has been listed on the stock exchange since 2005. Its core shareholder is the municipal holding company Publi-T (45.22%), founded in 2001 when Elia was established.

Major shareholders of S.A. Fluxys Belgium are Euronext Brussels (10,03%), Belgium State (1%) and Fluxys Holding (89,97%). Fluxys Holding, parent company of S.A. Fluxys Belgium, is owned by a municipal holding Publigas (77.7%) and Caisse de dépôt et placement du Québec (20%).

The regional governments of Flanders, Wallonia and Brussels-Capital have also transposed the DSO unbundling provisions of the Third Energy Package in their respective legislations for the 24 electricity and 18 gas DSOs.²⁶ Articles 28 of Directives 2009/72/EC and 2009/73/EC, relating to Closed Distribution Systems (CDS), have been transposed into law in the Flemish and Walloon region. In the Walloon and Brussels-Capital regions, the new concept of CDSs has not (yet) been introduced, but its legislation provides for a concept of private distribution networks.

3. Wholesale markets

Electricity

The Belgian electricity generation market is still highly concentrated (Herfindahl Hirschmann Index – HHI- in 2013 of 4,770 and 7,390 in 2008) but it has been improving as the generation market share of Electrabel (2013: 67%) dropped significantly in the last 5 years²⁷. The three largest firms, Electrabel, EDF Luminus and E.ON had a market share of 89% in 2013. The average price on day-ahead

²⁵ <http://www.creg.be/fr/index.html>.

²⁶ CEER, Status Review on the Transposition of Unbundling Requirements for DSOs and Closed Distribution System Operators, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Cross-Sectoral/Tab/C12-UR-47-03_DSO-Unbundling_Status%20Review_Public.pdf.

²⁷ HHI and market share based on generation capacity.

wholesale market in 2013 (EUR 47.45/MWh) at the Belgian exchange market Belpex was slightly higher than in 2012 and about two euros lower than in 2011. At the same time the total trading volume increased from 12.3 TWh (2011) to 17.0 TWh (2013). The sharp increase in traded volume correlates with a reduced availability of two nuclear power plants at the end of 2012. The number of market participants on the Belpex Day-Ahead Market has increased significantly in recent years and totaled 42 at the end of 2013.

Gas

Eighteen supply companies operated in 2012 on the Belgian gas wholesale market. The largest supplier was Eni Gas & Power with a market share of 36.9% in 2012 (2011: 45.7%). GDF Suez is the second largest supplier on the market with 31.9% market share (+4.5 % in 2012). EDF Luminus also strengthened its third place (10.2% in 2012, up 1.6%). The remaining fifteen supply companies hold market shares of less than 5% each and nine of these do not even reach 1%. The level of market concentration, although still high, has improved (HHI 2013: 2,332)²⁸, as pressure is exerted by emerging companies.

The total natural gas consumption was constant at 185.6 TWh (+1.2%) even though end-consumers connected to the distribution networks increased their consumption (+11.5%). However, at the same time consumption for electricity generation (possibly combined with the production of heat) dropped by 10.7% and consumption by industrial customers dropped by 3.3%. Most gas supply is provided via direct long term contracts (duration > 5 years) with natural gas producers (61.9% in 2012). However, the share of short-term contracts (< 1 year) grew from 22.3% in 2011 to 33.9% in 2012.²⁹ This effect was supported by the recently set up virtual trading point ZTP(L) (Zeebrugge Trading Point) as part of the new entry-exit regime.

4. Retail markets

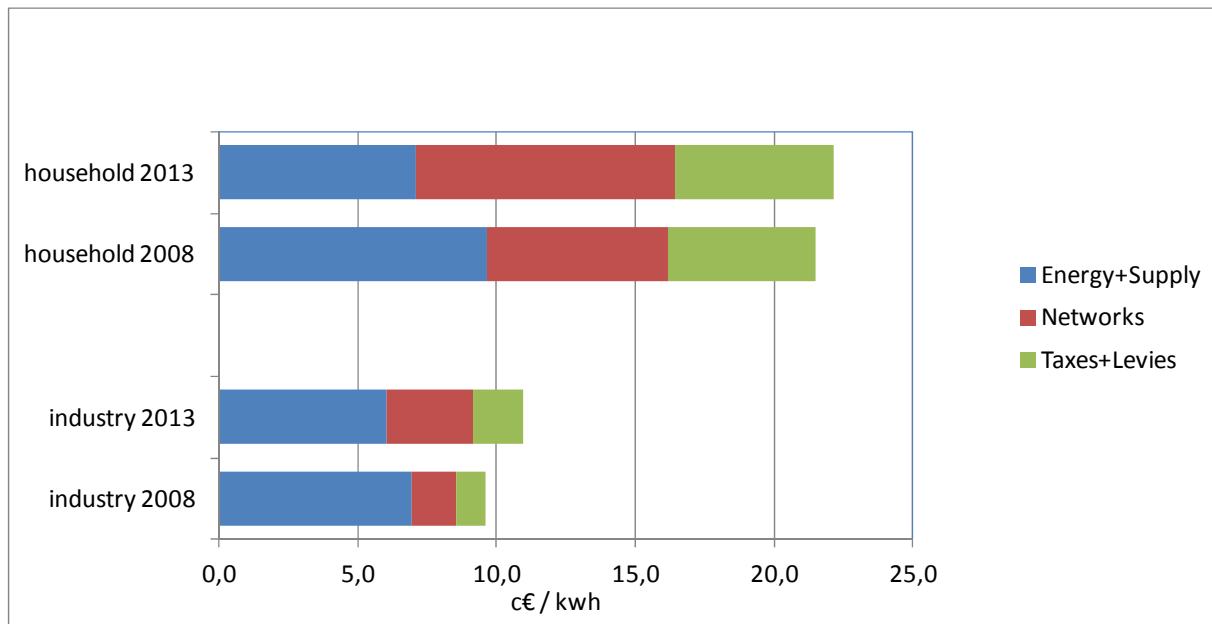
Electricity

Despite reduction of the largest three players' market shares, concentration was still high in 2012. The largest supplier was Electrabel Customer Service (ECS) with a market share of 45% (2011).

²⁸ CREG National Report 2014 to the European Commission and ACER, July 2014.

²⁹ CREG, Annual Report 2012, 2013.

Figure 3: Electricity price change by component 2008 – 2013 (source: Eurostat, energy statistics)



The electricity prices for household consumers declined from EUR 0.1590/kWh in 2012 to EUR 0.1583/kWh in 2013³⁰ and for industrial consumers from EUR 0.0950/kWh to 0.0914/kWh.³¹ In 2013 the share of energy and supply costs was 38,75% of household prices, while the share of network costs was 37,25%. Taxes and other levies made up for the remaining 24%.³²

On 1st April 2014, a VAT reduction from 21% to 6% on electricity entered into force.

Gas

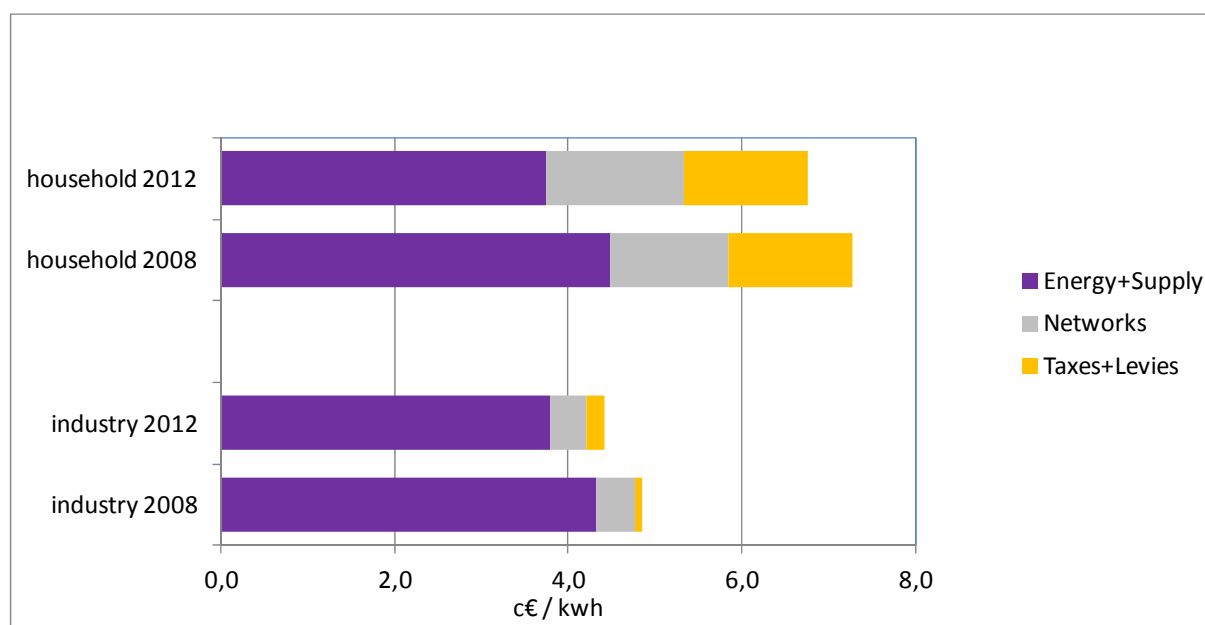
On the gas market, concentration is still high. In 2012, especially in the Flanders region, the market share of the largest three retailing companies fell from 91.26% to 76.01%. The HHI also fell in the Brussels region from 7,402 to 6,476. As in the electricity market, ECS was the largest supplier.

³⁰ Eurostat.

³¹ Eurostat.

³² Eurostat.

Figure 4: Natural gas price change by component 2008 – 2012 (source: EC, EPCR metadata)



Smart meters

Belgium formally decided, under current conditions, not to proceed until 2020 with the wide-scale roll-out of smart meters in the electricity and gas markets as the outcome of the cost-benefit analysis conducted by the regional regulators were negative.³³

Each of the three Belgian regions (Flanders, Wallonia and Brussels-Capital) has been in charge of their region-specific cost-benefit analysis (CBA) for the smart metering roll-out.³⁴

5. Consumers

Consumers' assessment of the retail gas and electricity markets is above EU average (75.7 points vs. 74.1³⁵ and 75.6 vs. 72.0, respectively), which in both cases corresponds to the 11th position in the EU ranking. The gas market has improved by 6.7 points since 2012 and the electricity market by 7.4 (highest and 2nd highest in the EU). Both markets have the highest proportion of consumers switching tariff plan or service provider in the EU (about 3 times higher than the EU average), and choice of providers and the ease of switching are within the 5 best ratings in the EU (the latter component is assessed 3rd highest in the EU for the gas market). While the incidence of problems in both markets is

³³ Ref: C13-RMF-54-05 Status Review of Regulatory aspects of Smart Metering.

³⁴ Two different CBAs were realised on behalf of VREG: the first in 2008 and a second one in 2011. Among the three scenarios considered in the 2011 CBA, only the reference scenario results in a positive net present value. However the result under the reference scenario is considered to be inconclusive as it does not yield a strong positive result. Nevertheless, in the Flemish region, Eandis and Infrax (DSOs) started installing new smart gas and electricity meters as of 1 October 2012. 50,000 meters will be installed in different areas of Flanders during ten months. The CBA for the region of Brussels capital by BRUGEL results in negative net present value for all four considered scenarios. A CBA for smart metering roll-out in Wallonia has been realised in 2012 by CWAPE. The results reported are the following: the 'Full roll-out' is negative, while the 'Smart Meter friendly' scenario is positive. The Walloon region has decided, under current conditions, not to go ahead with a wide-scale roll-out until 2020.

³⁵ However the difference is not statistically significant.

below the EU average, the number of consumers complaining is higher than average (2nd highest in the case of gas services). Especially the share of complaints to third parties is 3rd highest in the EU.³⁶

The improvement of market performance from 2012 could be linked to several measures taken by the Belgian government: a modification of the energy law making it easier to switch provider; a campaign organised together with local communes informing and assisting consumers in using comparison tools for comparing energy prices; and promotion of joint energy purchases. The information campaigns that took place in 2012 were continued in 2013; at least one collective switching was organised by a consumer organisation. New regulatory guidance specified that contract termination can take place at any moment without cancellation fees (as long as the one month notification period is respected).

Customers became more price-conscious and suppliers kept their prices constant in 2013 after the end of the provisional capping. Since 2013, suppliers' prices are more transparent and through the introduction of the safety net regulation these prices are constantly monitored by the CREG. As a result, the average price of the electricity and gas component is now moving closer to the average prices seen in neighbouring countries.

However, there is still divergence among the various regions in Belgium. A positive outlook is seen for Flanders, but not for Wallonia, as reported by regional regulators.

The number of customers benefiting from social tariffs remained stable compared to 2011 (400,000 for electricity and 230,000 for gas). The Federal Mediation Service for Energy received 8,331 complaints during 2012 (compared to 8,736 complaints in 2011). Of these complaints, 50% were considered admissible.

6. Infrastructure

The Belgian authorities have established a one-stop-shop for the permitting of Projects of Common Interest (PCIs) pursuant to the TEN-E Regulation and a cooperation agreement between the Federal State and the Regions on the establishment of the Coordination Committee has been signed.

Electricity

The Belgian network forms an integral part of the European transmission network and has connections with the Netherlands, France and Luxembourg. The infrastructure at the interconnection point also includes phase shifters, which limit the impact of loop flows which originate most frequently from Germany and help to stabilize the grid in Belgium and in the region.

Several projects have been identified as PCIs in accordance with the guidelines on Trans-European energy network as they are cross border connections and improve security of supply. The "NEMO" project will create the first interconnection to the United Kingdom via the North Sea. The "ALEGro" project will also create the first direct interconnection to Germany. Finally there is another interconnection project with Luxembourg.

³⁶ 10th Consumer Markets Scoreboard,
http://ec.europa.eu/consumers/consumer_evidence/consumer_scoreboards/10_edition/index_en.htm

Gas

Belgium occupies a key position in the European gas grids and serves as an important transit country. In particular, the development of the Zeebrugge hub is attracting International trade as a collection of connection points of several pipelines and as an important LNG terminal, which contributes significantly to the security of supply in North-West Europe. In addition, Belgium is also well interconnected with its neighbours – Germany, France, The Netherlands, and Luxembourg.

Based on market consultation Fluxys Belgium will build additional interconnection lines to the LNG terminal in Dunkirk and Fluxys LNG will build a second landing stage for loading and unloading at Zeebrugge terminal which also qualified as PCI. In addition, there is another project to improve the interconnection of the Belgium gas market to Italy (reverse-flow on TENP).

In total, ten projects involving Belgium have been identified as PCIs.

7. Security of Supply

Electricity

A combination of factors has led to concerns about generation adequacy in Belgium: the nuclear phase-out, delays in several new plants for fossil-based generation and in the construction of high-voltage lines. These factors have been exacerbated by unforeseen outages in major nuclear units which have reduced the generation capacity by 3 GW.

Elia, as TSO, and the Government have taken measures to address the situation which include an increased strategic reserve and industrial load reduction. An updated plan for controlled regional power cuts has been presented to avoid black-outs in a worst-case scenario.

In the medium term, in order to encourage investments, the Belgian government has launched a call for tender for the construction of new CCGT plants.

Gas

Following the transition to an entry-exit market model, the network was enforced with a new compressor station on the rTr/VTN pipeline in Winksele, which increases entry and exit capacities both in the East and the West. Moreover, Fluxys Belgium reactivated the former liquid nitrogen (LIN) storage tank in Dudzele with a new LIN blending facility in order to stabilize the flows to the UK and to fulfil gas quality conditions. Finally, the gas network towards Luxembourg will be enhanced in order to be able to comply with the anticipated growing demand for natural gas in Luxembourg.

8. Key indicators

Electricity		Gas	
Number of companies representing at least 95% of net power generation	46	Number of entities bringing natural gas into country	N/A
Number of main power-generation companies	2	Number of main gas entities	N/A
Market share of the largest power-generation company	65.8%	Market share of the largest entity bringing natural gas	N/A

Number of electricity retailers	33	Number of retailers selling natural gas to final customers	22
Number of main electricity retailers	4	Number of main natural gas retailers	4
Switching rates (entire electricity retail market)	10%	Switching rates for gas (entire retail market)	11.2%
Regulated prices for households – electricity	No	Regulated prices for households – gas	No
Regulated prices for non-households – electricity	No	Regulated prices for non-households – gas	No
HHI in power-generation market	4,010	HHI in gas supply market	4,000
HHI in electricity retail market	3,000	HHI in gas retail market	3,900
Electricity market value ³⁷ (bn€)	9.677	Gas market value (bn€)	4.505
Installed generation capacity (MW, 2012)	20,8		
Peak demand (MW)	14,234		
Number of smart meters installed	N/A		

³⁷ Market value is an estimation of the size of the retail electricity and gas markets. It is calculated using data on electricity and gas consumption in the household and non-household sectors (average bands) and annual average retail prices.