

Bulgaria

Key issues

With regards to electricity, the domestic market is dominated by the Bulgarian Energy Holding and its daughter, the national electricity supply company Natsionalna Elektricheska Kompania EAD (NEK) and characterized by an overcapacity in electricity generation. To attract independent producers and traders, efforts on establishing a well-functioning balancing market including putting into place an organised independent power exchange and day-ahead market should be increased. The existing quota system for power plants in the regulated segment of the market should be phased out gradually and the current single-buyer model should also be removed. Bulgaria needs to gradually phase out regulated electricity prices also for households and small and medium-sized businesses connected at low voltage and take necessary steps towards a competitive retail market. Furthermore, an effort should be made to accelerate the implementation of electricity interconnection points and enhance the capacity to cope with disruptions.

With regards to the gas market, connection of the domestic gas transmission system and the transit system via adequate capacity level remains an outstanding issue and the delays observed in developing interconnections with neighbouring countries should be resolved and promoted. The certification process of the independent gas transmission operator should be completed.

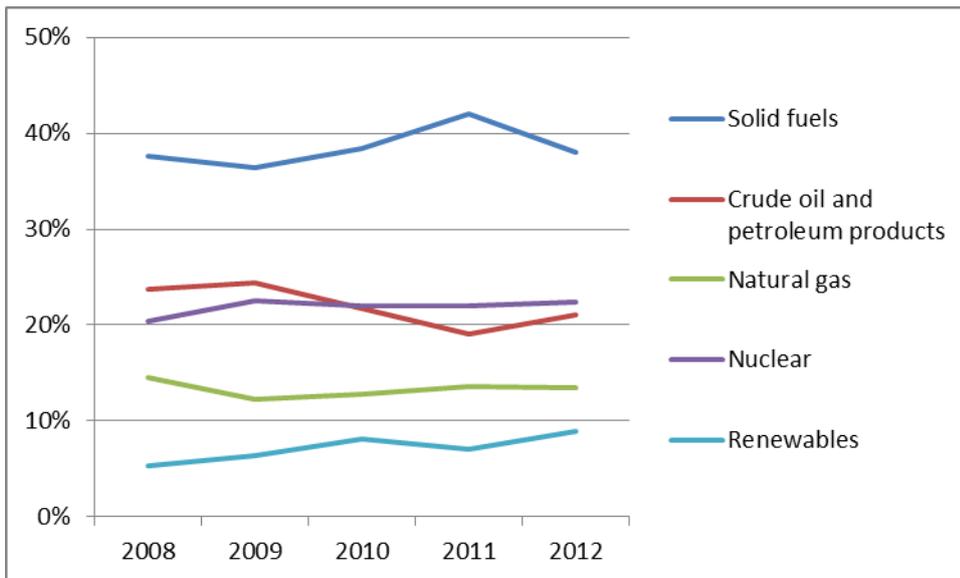
The progressive dismantling of the Bulgarian Energy Holding conglomerate and an ownership unbundling of the transmission system operators would essentially help reducing the dominance of the incumbent company and introduce more competition on the Bulgarian electricity and gas markets.

Bulgaria should also strengthen the independence of the national regulatory authority and its administrative capacity in the energy sector.

1. General overview

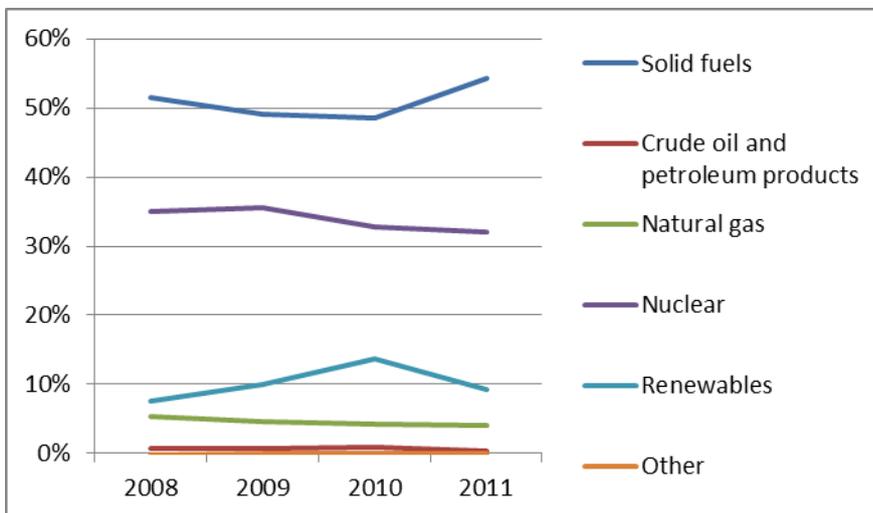
Gross national energy consumption in 2012 reached 18.2 Mtoe, a decrease of 4.5% compared to 2011. The country's energy mix was largely based on solid fuels (36.3%), followed by nuclear (21.4%) and oil (20.1%). Compared to 2011, solid fuels decreased significantly.

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



Gross electricity generation in 2011 reached 50.8 TWh, with the largest contributor being solid fuels (54.2%), followed by nuclear power (32.1%). Renewables (9.3%) and natural gas (4.1%) also had a visible presence in the electricity mix, while the contribution by oil is negligible (0.3%). Gross electricity generation in 2012 reached 47,3 TWh, with the largest contributor being solid fuels, followed by nuclear power.

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



Cogeneration³⁸ (with 6.7% in 2011) has been in decline since 2008, when it represented 10% of gross electricity generation³⁹. The country’s overall renewables target share for 2020 is 16%. In 2012, the

³⁸ The share of electricity produced in combined heat and power plants (CHP).

³⁹ Eurostat.

renewable share in gross final energy consumption was 16.3%⁴⁰ and Bulgaria has thus already achieved its national 2020 RES target.

2. Regulatory framework

General

The Energy Act was amended in July 2012 to implement the Directives 2009/72/EC and 2009/73/EC⁴¹ and the Energy Efficiency Act was amended in February 2013 to implement Directive 2010/31/EC⁴².

The Renewable Energy Act, adopted in July 2012 was amended in 2013 to abolish the “green surcharge for transit”⁴³ and introduce a fee (or tax) for solar PV and wind production.⁴⁴ Also the limitation on the volume of electricity purchased at the feed-in tariff price was amended. Production above the cap will be purchased at the regulated retail price.

National Energy Regulator

The Bulgarian Energy Regulator is the State Energy and Water Regulatory Commission (SEWRC), established in 1999. SEWRC is an autonomous regulatory agency responsible for electricity, heat, natural gas, water and sewerage. In 2012, SEWRC employed 128 staff, with an operating budget of approximately EUR 1.86 million. Although SEWRC's budget increased by EUR 70,000 in 2013, this did not translate into a significant increase of resources and number of employees. The current budget does not allow SEWRC to build up the stable and high quality staff that is demanded to carry out its legal tasks. The fact that SEWRC's Chairpersons changed four times in the course of 2013, raises concerns about the independence, professional stability and continuity of the management of the Regulator. The selection of the Chairperson of SEWRC should take place in a more transparent manner based on transparently defined professional criteria and respecting general principles of conflict of interest.

Unbundling

In February 2014, the public provider NEK completed the last phase of its split from the Electricity System Operator (ESO). ESO is now able to start the process of its certification as an independent transmission operator, although no draft certification decision was submitted to the European Commission until September 2014.⁴⁵ In April 2013, the gas TSO Bulgartransgaz EAD submitted an application to SEWRC for certification as an independent gas transmission operator⁴⁶. SEWRC's initial draft decision was withdrawn and is to be resubmitted in the autumn of 2014⁴⁷.

⁴⁰ Eurostat.

⁴¹ SEWRC, Annual report 2012, July 2013.

⁴² Ecologic, “Assessment of climate change policies in the context of the European Semester, Country Report: Bulgaria”, Report for DG Climate Action, 2013.

⁴³ Ecologic, “Assessment of climate change policies in the context of the EU Semester”, Issue 03/2013, June 2013.

⁴⁴ <http://www.kpmg.com/BG/en/IssuesAndInsights/ArticlesPublications/Newsletters/Legal/Documents/2014-01-Important-amendments-to-the-Renewable-Energy-Act-effective-from-1-January-2014.htm>.

⁴⁵ <http://powermarket.seenews.com/news/bulgarias-beh-says-nek-eso-split-up-completed-403143>

⁴⁶ <http://www.bulgartransgaz.bg/>.

⁴⁷ http://ec.europa.eu/energy/gas_electricity/interpretative_notes/certification_en.htm.

The electricity distribution network is privatized and owned by CEZ, EVN and Energo-Pro. The distribution and supply companies are legally unbundled. None of the 30 gas distribution companies are legally unbundled since they have less than 100,000 customers.⁴⁸

3. Wholesale Markets

Electricity

The state owned Bulgarian Energy Holding EAD (BEH) and its subsidiary NEK, hold generation assets representing 45% of the installed capacity. NEK acts as a single buyer from the power generators on the high voltage grid and remains the sole electricity supplier at regulated prices for end suppliers. Moreover, NEK has the legal obligation to purchase electricity produced by CHP plants, renewables and industrial producers at regulated prices.

Dispatching of power plants takes place based on regulated quota and priority rules. As a result, NEK purchases electricity at a wide range of prices, from EUR 21/MWh up to more than EUR 350/MWh. Overall, the Bulgarian electricity market operates mainly at regulated prices, covering roughly half of the electricity transactions. The Rules on Electricity Trade were amended in May 2014⁴⁹; a company within the BEH group, Independent Bulgarian Energy Exchange (IBEX), has been licensed for operating an organized power exchange and day-ahead market in electricity⁵⁰.

About a third of the electricity market was first opened in 2012, including consumers using their right to choose a supplier and commercial exports. The open electricity market in 2012 included mainly consumers connected to high voltage network and some medium voltage consumers.

Traditionally Bulgaria is a net electricity exporter. In 2012, the share of net country exports was 20.4% of the net electricity country output.⁵¹ This was lower than 2011 because of decreasing demand from the Greek market and other neighbouring markets having sufficient hydro resources. In January and February 2012, the export of domestically produced electricity was curtailed twice from Bulgaria to the neighbouring markets. Following the removal of surcharges imposed on power generators electricity exports increased in 2014 compared to previous years.

Gas

Bulgaria largely depends on gas imports from Gazprom. Bulgargaz EAD, which is part of BEH, is the largest natural gas importer. In 2013, a second trader, affiliated with Gazprom, entered the gas market, which imported gas from Russia and sold gas to its distribution companies as well as end users.

The tariff model for transmission is “postage stamp” (flat fee). At present, transit flows through Bulgaria to *inter alia* Turkey and Greece are excluded from the regulatory oversight by SEWRC and based on historic long term transport contracts with preferential access to cross-border capacities.

⁴⁸ SEWRC, Annual report 2012, July 2013.

⁴⁹ State Gazette of Bulgaria, issue 39 of 9 May 2014

⁵⁰ SEWRC's decision of 31 March 2014

⁵¹ SEWRC, Annual report 2012, July 2013.

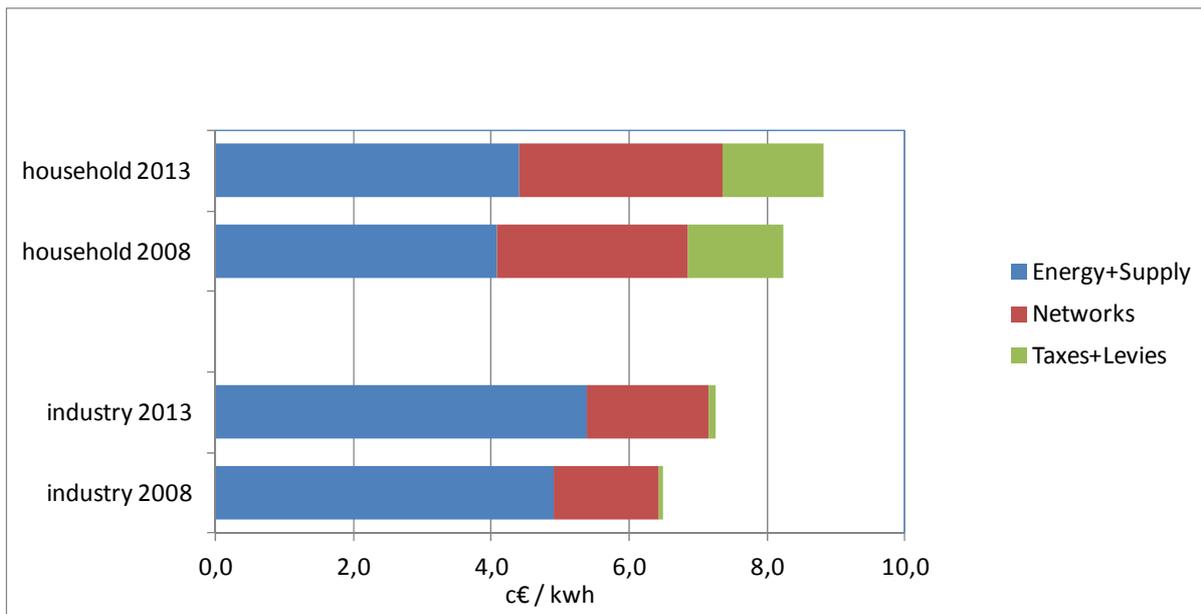
Bulgartransgaz EAD is expected to implement an entry-exit model, to meet the requirements of the Third Energy Package, however this system is not envisaged to include the transit.⁵²

4. Retail Markets

Electricity

The retail electricity market remained highly concentrated. In 2012, 8 out of total 24 power retailers took 92% of the market.

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



From the beginning of 2013, the market was only regulated at the low voltage level. The renewables charge makes up for 15% of the total electricity price for household consumers in Bulgaria.

Although electricity consumers are allowed to switch, no actual switching is observed. Due to the regulated prices for household consumers, there is no benefit in switching and there is no incentive for traders to enter this segment.⁵³

Gas

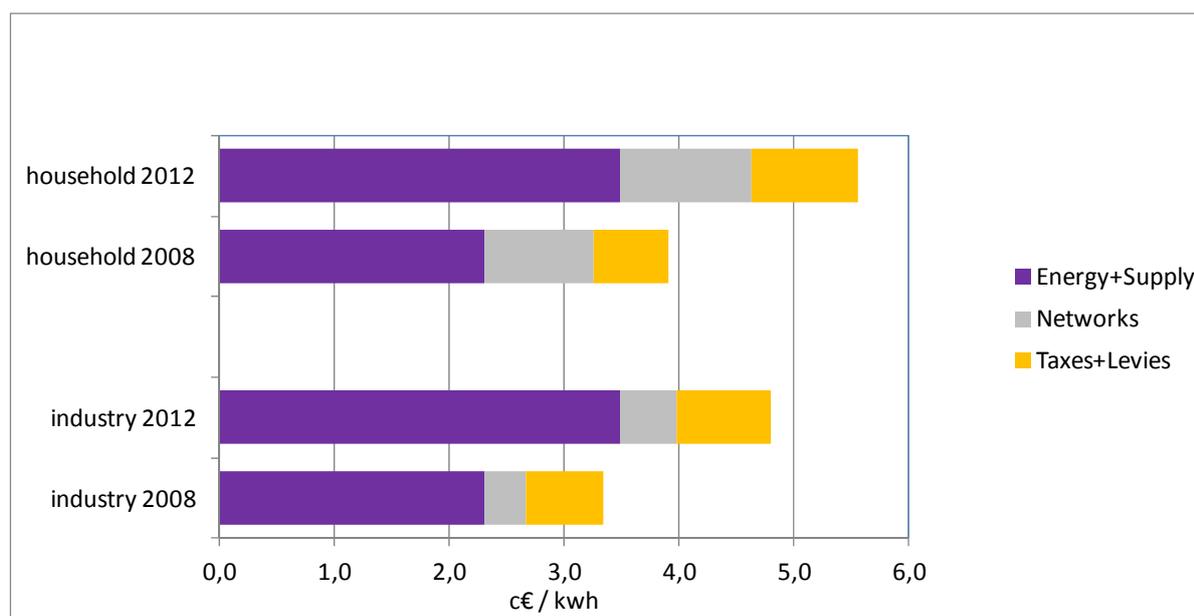
Overall gas demand in Bulgaria increased in 2013 by 7% compared to 2012⁵⁴. The traded volumes were 2854.8 mcm for non-households and 70.2 mcm for households.

⁵² SEWRC, Annual report 2012, July 2013.

⁵³ ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012, November 2013.

⁵⁴ ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012, November 2013.

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



In 2012, Bulgaria registered an annual price decrease for natural gas close to 4%, for both household and industrial customers. Taking purchasing power into account, retail gas prices for the average consumer in Bulgaria are the highest in Europe. Natural gas prices (including taxes and levies) increased by 42.2% for residential consumers and by 49.2% for industrial users from 2008 to 2012. The main drivers behind these price rises were energy and supply costs, although VAT rises and higher distribution costs (for industrial users) were also significant factors⁵⁵.

Although consumers have the right to select their natural gas supplier, no actual switching is observed as DSOs operate exclusively in their licensed areas of operation.

5. Consumers

The retail electricity market in Bulgaria is by far the lowest scoring in the EU (48.9 points compared to 72.0) and has seen a highest decrease in score (6.9 points) since 2012. The market is also at the very bottom of the domestic ranking of 31 services markets. In fact, it has the lowest score of all surveyed services markets in the 28 EU Member States. The market scores the lowest or second lowest on all components surveyed (comparability, trust in providers, overall consumer satisfaction, choice of providers, problems, switching and ease of switching), except for the proportion of complaints (which are just below the EU average). The gas market in Bulgaria is scoring better, although also below the EU average (72.0 points vs. 74.1⁵⁶, corresponding to 18th position in the EU and has seen an increase of 2.1⁵⁷ points since 2012. This market scores particularly low on trust (lowest place among the EU countries).⁵⁸

⁵⁵ The EC, Energy Prices and Costs report, 2014.

⁵⁶ However the difference is not statistically significant

⁵⁷ However the difference is not statistically significant

⁵⁸ 10th Consumer Markets Scoreboard,

http://ec.europa.eu/consumers/consumer_evidence/consumer_scoreboards/10_edition/index_en.htm

In July 2013, SEWRC concluded that the implementation of smart metering was not economically viable. The powers of the SEWRC include the review of complaints of consumers against licensees. In 2013, 2,332 complaints against electricity licensees were filed at SEWRC, and 45 complaints against gas licensees. The majority of the gas related complaints were concerned with delays in getting connected to the gas transmission network and gas disruptions.⁵⁹ From July 2012, vulnerable customers are defined in the Energy Act.

6. Infrastructure

The Bulgarian authorities should ensure a proper and timely adoption of the measures stemming from the TEN-E Regulation, including the establishment of the one-stop-shop for Projects of Common Interest (PCIs) (due by 16 November 2013), and other measures foreseen for 2014 and 2015, including the publication of the manual on the permit granting process for project promoters, and the adoption of legislative and non-legislative measures streamlining the environmental assessment procedures.

Electricity

Total installed capacity in 2012 was 13.8 MW, with the peak load of 7.8 MW observed in February 2012.⁶⁰ There are several PCIs under the guidelines for trans-European energy infrastructure to be developed within the interconnecting lines with Greece and Romania that increase the cross-border capacity and open North-South priority corridor. Another important PCI is hydro-pumped storage in Yadenitsa.

Technical measures and rehabilitation of the electricity transmission system were approved by the Regulator in 2012. A number of reconstructions and an enlargement of the transmission network was realised and new substations and lines were constructed to satisfy the requirements from new renewable capacities in certain regions of the country.⁶¹

Gas

In 2013, approximately EUR 15.7 million has been invested in the improvement of the gas distribution infrastructure, through the construction of 194 km of pipelines⁶². Currently there is no physical congestion in the system, either national or cross-border. However, cross-border connection points suffer from heavy contractual congestion and there is minor entry capacity from neighbouring Member States into Bulgaria. Annual gas consumption is below half of the projected transmission capacity.

Progress on the interconnections, PCIs, with Romania, Serbia, Greece, and Turkey is ongoing. The interconnection with Romania – originally expected to be commissioned in June 2014 – is facing delays. Firm reverse flow capacity from Greece has been installed at the level of 1 mcm/d. However, the interconnection between Bulgaria and Turkey is delayed. The reverse flow project with Romania, entailing the connection of the domestic Romanian system to the trunk line, has been suspended.

⁵⁹ SEWRC, Annual report 2012, July 2013.

⁶⁰ ENTSO-E, YS AR Report 2012.

⁶¹ SEWRC, Annual report 2012, July 2013.

⁶² SEWRC, Annual report 2012, July 2013.

7. Security of supply

Electricity

Bulgaria is one of the largest electricity exporters in South Eastern Europe, and thus faces no particular security of supply issues. The electricity transmission network of the country has not faced any significant problems related to security of supply and congestions in the electricity system, including the cross-border capacities. Short-term congestions were rare in the interconnectors with neighbouring countries. Scheduled and non-scheduled interruptions were lower than forecasted.⁶³ To increase the security of supply in the Burgas region, the construction of two new 400kV substations and three 400kV lines in the North-Eastern part of Bulgaria is envisaged, accommodating the high penetration of renewables in the region and allowing the North-South connection⁶⁴.

Gas

In 2014 Bulgaria remains fully dependent on a single source of gas on a single route by a single supplier. It has only limited domestic underground storage capacities that could help in balancing disruptions in high demand periods. Interconnections with the neighbouring countries are very poor and still under development. To ensure security of supply, there are possibilities for reverse physical flow of natural gas from Greece and, after eventually reaching an agreement, from Turkey. The Kula-Sidirokastro interconnector exhibits an existing capacity of 4.3 bcm annually, with the planned reverse flow capacity of 0.36 bcm⁶⁵. There is an underground gas storage facility, Chiren, with a capacity of 550 mcm, of which 250 mcm is reserved for emergency situations. Expansion of the Chiren capacity is envisaged⁶⁶.

8. Key Indicators

Electricity		Gas	
Number of companies representing at least 95% of net power generation	20	Number of entities bringing natural gas into country	2
Number of main power-generation companies	5	Number of main gas entities	3
Market share of the largest power-generation company	N/A	Market share of the largest entity bringing natural gas	N/A for 2012, 99.8 for 2011
Number of electricity retailers	24	Number of retailers selling natural gas to final customers	30
Number of main electricity retailers	8	Number of main natural gas retailers	3
Switching rates (entire electricity retail market)	0%	Switching rates for gas (entire retail market)	0%
Regulated prices for households – electricity	Yes ⁶⁷	Regulated prices for households – gas	Yes

⁶³ SEWRC, Annual report 2012, July 2013.

⁶⁴ ENTSO-E, Regional Investment Plan Continental South East, July 2012.

⁶⁵ Francese, Opening the Southern Gas Corridor, Trans Adriatic Pipeline, December 2012.

⁶⁶ Bulgartransgaz, 10 year development plan, 2013-2022.

⁶⁷ ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012, November 2013.

Regulated prices for non-households – electricity	Yes ⁶⁸	Regulated prices for non-households – gas	Yes
HHI in power-generation market	N/A	HHI in gas supply market	7,753
HHI in electricity retail market	N/A	HHI in gas retail market	Approx. 1,000
Electricity market value ⁶⁹ (bn€)	1.706	Gas market value ³⁴ (bn€)	0.434
Installed generation capacity (MW)	10,236		
Peak load (MW)	7967		
Number of smart meters installed	N/A		

⁶⁸ ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012, November 2013.

⁶⁹Market 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.