

Slovakia

Key issues

Slovakia should enhance the independence of national regulatory authority and ensure its accountability. Slovakia should promote a regulatory framework conducive to investment in and integration of the electricity and gas markets, including by reviewing the impact of price regulation and changes in network charges. Currently network distribution and transmission charges in Slovakia are among the highest in the EU.

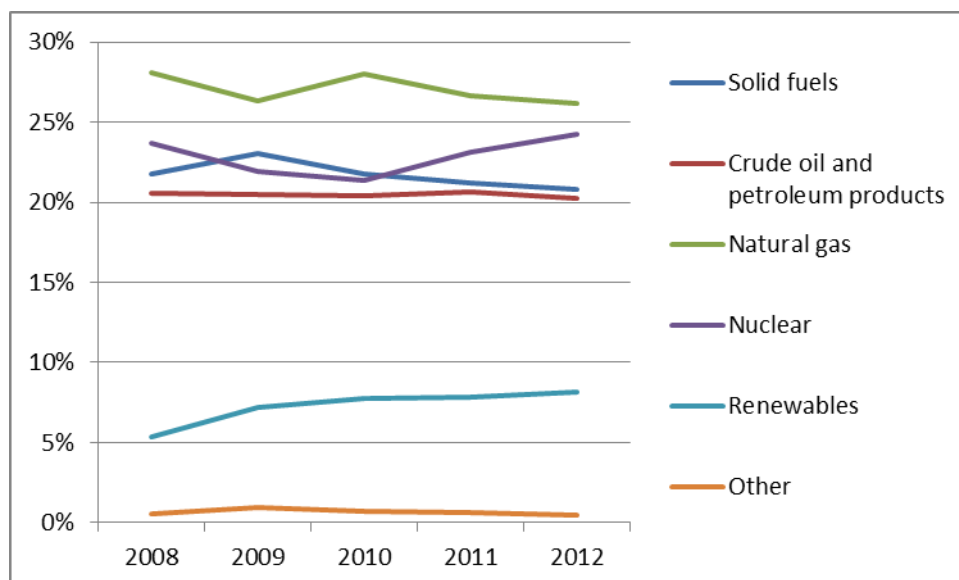
Slovakia should facilitate greater regional integration and strengthen interconnections with neighbouring countries in both gas and electricity networks. Market coupling with the Hungarian and the Czech day-ahead electricity markets is a positive development and such efforts should be continued.

Slovakia should continue its efforts to diversify gas imports in order to foster security of supply and in order to address the concentration on the wholesale market.

1. General overview

Energy consumption in 2012 (16.7 Mtoe) was based largely on natural gas, crude oil and petroleum products. The share of renewables in gross final energy consumption was 10.4%.⁴⁵¹ Slovakia remained above its 2011/2012 interim trajectory and is currently on track to achieve its 2020 renewables target of 14%.

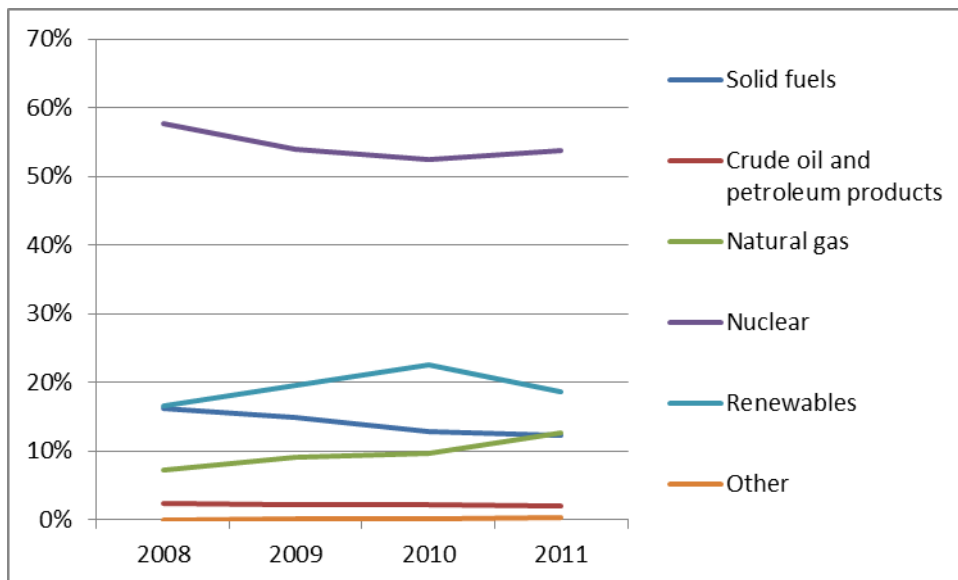
Figure 1: Gross inland consumption mix 2008 – 2012 (source: Eurostat)



⁴⁵¹ Eurostat and http://ec.europa.eu/energy/publications/doc/2014_pocketbook.pdf

The biggest share in the power generation mix in 2011 (28.66 TWh) was nuclear (53.8%) and renewables (18.7% - mostly hydro). The share of natural gas increased in 2011 compared to 2010 while the volume of power generated from solid fuels and oil power remained unchanged.

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



Cogeneration⁴⁵² provided 24.5% of gross electricity generation in 2011, increasing considerably from 2010.⁴⁵³

Final consumption of electricity in 2011 was 10.8 Mtoe and decreased compared to 2010. The consumption of natural gas by final consumers declined in 2012 to 54.2 TWh. The economic crisis boosted energy efficiency and reduced power prices in Slovakia.

2. Regulatory framework

General

In July 2012, Slovakia adopted laws to transpose the Directives of the Third Energy Package into its national law. The main purpose of the adoption of that legislation was the further liberalisation and harmonisation of the rules governing the functioning of the energy market and ensuring compliance with the provisions of the third energy package. Some stakeholders have raised concerns with regard to the independence, transparency and accountability of the national regulatory authority. In particular concerns were raised that decisions to substantially change network charges have been introduced without sound consultations and proper economic analysis underpinning the decisions, in particular without analysis on the deterioration on the investment climate and the integration with

⁴⁵² The share of electricity produced in combined heat and power plants (CHP).

⁴⁵³ Eurostat.

neighbouring markets this decision may have. Network distribution and transmission charges in Slovakia are among the highest in the EU.⁴⁵⁴

National Energy Regulator

Energy regulation in Slovakia is undertaken by the Regulatory Office for Network Industries ("*Úrad pre reguláciu sieťových odvetví*" - URSO) which was established in 2001. URSO employed 100 staff members in 2012 and its annual budget reached almost EUR 2.95 million. The laws transposing the Directives of the Third Energy Package do not fully ensure that URSO can take autonomous decision independently from the Ministry and the State Inspection and do not foresee that decisions taken by URSO have to be fully reasoned and justified.

Unbundling

SEPS unbundled in 2001 and as a result of unbundling, three vertically integrated companies were formed to provide electricity distribution, electricity supply and services. In 2013 SEPS, the Slovakian electricity transmission system operator, was certified under the ownership unbundling model by means of separate public bodies within the State.⁴⁵⁵

Eustream the only gas transmission system operator in Slovakia was certified as Independent Transmission System Operator (ITO) in 2013.⁴⁵⁶ SPP-distribúcia, the only operator of the gas distribution system, was legally unbundled from SPP in 2006.

3. Wholesale markets

Electricity

The power generation market is highly concentrated. The largest power generating company (Slovenské elektrárne) had a market share of almost 78% in 2011⁴⁵⁷.

Trading takes place mostly through bilateral contracts. 10% of total annual power production in Slovakia has been traded on short term day-ahead exchange platforms.⁴⁵⁸ The main power exchange in Slovakia is Power Exchange Central Europe (PXE). Slovakia is part of the Central Eastern Europe regional market. The price convergence between Slovakia, Czech Republic, and Hungary increased from 11% to 82% after market coupling in September 2012⁴⁵⁹. In 2012, liquidity of Slovakian intraday market was just 0.04 TWh, indicating poor competition on the wholesale market.

In 2013 an obligation for electricity producers to pay a network charge, so-called G-component was introduced. Furthermore for 2013 and 2014, the Ministry of Economy has imposed obligations on the electricity producer Slovenské elektrárne, on the transmission system operator and on electricity

⁴⁵⁴ The EC, Energy prices and costs report of 17.3.2014, SWD(2014) 20 final/2.

⁴⁵⁵ After the European Commission has issued its opinion of 09.8.2013 pursuant to Article 3(1) of Regulation (EC) No 715/2009 and Article 10(6) of Directive 2009/73/EC.

⁴⁵⁶ After the European Commission has issued its opinion of 23.8.2013 pursuant to Article 3(1) of Regulation (EC) No 715/2009 and Article 10(6) of Directive 2009/73/EC.

⁴⁵⁷ Eurostat.

⁴⁵⁸ URSO, Annual report, 2013.

⁴⁵⁹ ACER/CEER, Annual Report. on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012, November 2013.

distributors and suppliers in order to ensure the production and supply of a certain amount of electricity from indigenous coal. These obligations cover 6.7% of total domestic consumption of electricity in Slovakia in 2012. The corresponding electricity price should be maintained at the level determined by the Office for the Regulation of Network Industries.

Gas

Concentration of the gas wholesale market remained very high in 2012. SPP withholds almost 70% of gas supply and it imports gas within a long-term contract with Gazprom. The contractual price SPP has to pay to Gazprom has been re-negotiated and lowered in 2014 in order to better reflect the lower prices on spot markets. 98% of gas consumed in Slovakia comes from Russia⁴⁶⁰. On the Slovak wholesale gas market no major trading activity takes place however some sporadic over-the-counter deals take place on border points, the Slovak virtual trading point and the domestic points.

In 2012 transit volumes reached 56.5 bcm compared to 5.2 bcm of domestic consumption and transit capacity of 90 bcm/a. Transit volumes of natural gas from Russia to the EU through Slovakia dropped from 80% of total Russian flows to Europe a few years ago to about 54 % in 2013 due to the launch of Nord Stream. In the meantime, gas has been entering Slovakia in reverse flow from the Czech Republic via Lánžhot cross-border point.⁴⁶¹ In 2013 the network charge for entering the Slovak gas transmission system from the Czech Republic increased by 300% and from Austria by 50% compared to tariffs in force in 2012.

In 2013, Slovakia, Hungary, Czech Republic and Poland adopted a “Road Map towards the regional gas market among Visegrad 4 countries”⁴⁶².

4. Retail markets

Electricity

The number of licenced power retailers in the whole retail market has been constantly growing and it reached 407 at the end of 2012. 19 retailers provide electricity to household consumers at the end of 2012⁴⁶³. Despite the growing number of competitors in the power supply market, prices for household consumers and small and medium companies remain regulated. Deregulation of prices for the commercial sector in 2012 was only temporary and URSO decided to revert to previous regulation due to increase in power prices for small and medium undertakings.

In 2013, electricity prices for household and industrial consumers decreased compared to 2012⁴⁶⁴. Network charges are among the highest in all of the EU member states.⁴⁶⁵

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

⁴⁶⁰ URSO, Annual report, 2013.

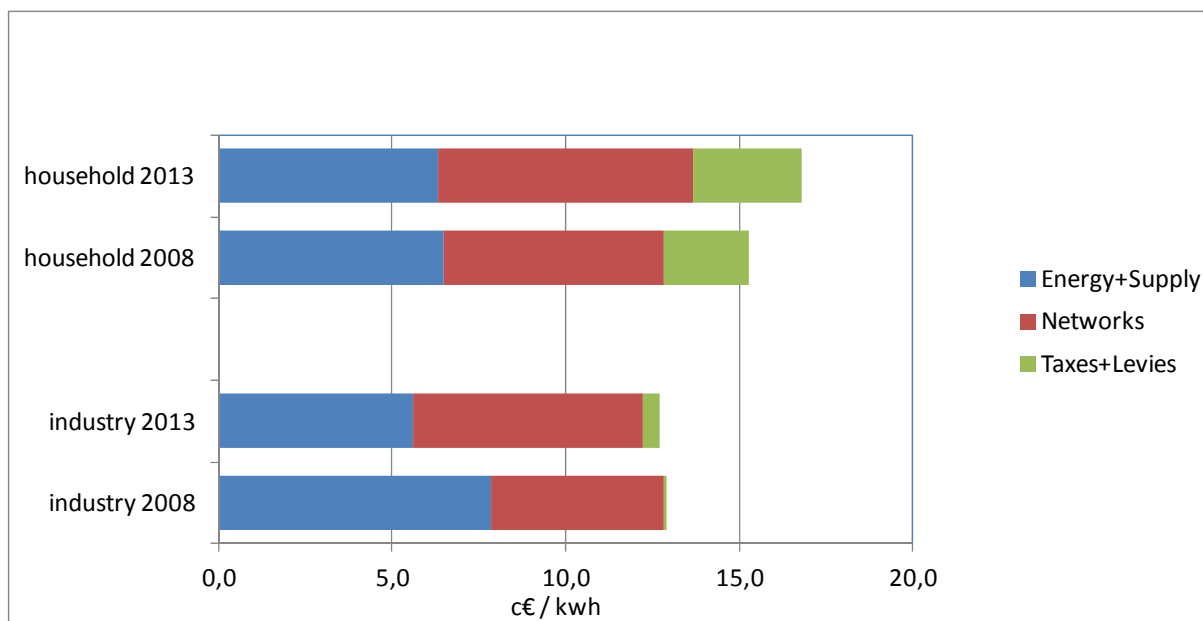
⁴⁶¹ ICIS Heren, European Gas Markets, March 2014.

⁴⁶² Road Map towards the regional gas market among Visegrad 4 countries, June 2013

⁴⁶³ CEER database

⁴⁶⁴ Eurostat.

⁴⁶⁵ The EC, Energy Prices and Costs Report, 2014.



The numbers of consumers switching power providers are increasing every year, which is a good sign for energy market liberalisation. 57,307 consumers switched in 2012 against 39,762 in 2011, but the total number of switches remains relatively low.

According to URSO, switching was not beneficial in every case, as some power suppliers failed to set prices in a transparent manner. Irregularities related mostly to invoicing issues. As a result, in 2013 URSO returned to regulating prices for small and medium commercial users.

A rollout of smart metering in Slovakia is still being discussed. Distribution system operators install smart meters on a voluntary basis, usually for energy-intensive customers.

Gas

In 2012, 74 % of all inhabitants in Slovakia had access to gas⁴⁶⁶. Slovakia, after the Netherlands, is the second most gasified country of the EU. The demand for gas dropped by 5% between 2012 and 2011⁴⁶⁷ due to decreasing power demand displaced by the increasing use of renewables in electricity production.

In Slovakia the distribution system is balanced separately from the transmission system which creates a potential barrier for market players to enter the retail market.

Retail market concentration is high. In 2012 there were 23 gas retailers⁴⁶⁸ in the entire retail market, of which the dominant supplier is Slovenský plynárenský priemysel, SPP (70% share of gas market), followed by RWE Gas Slovensko (18.7%).

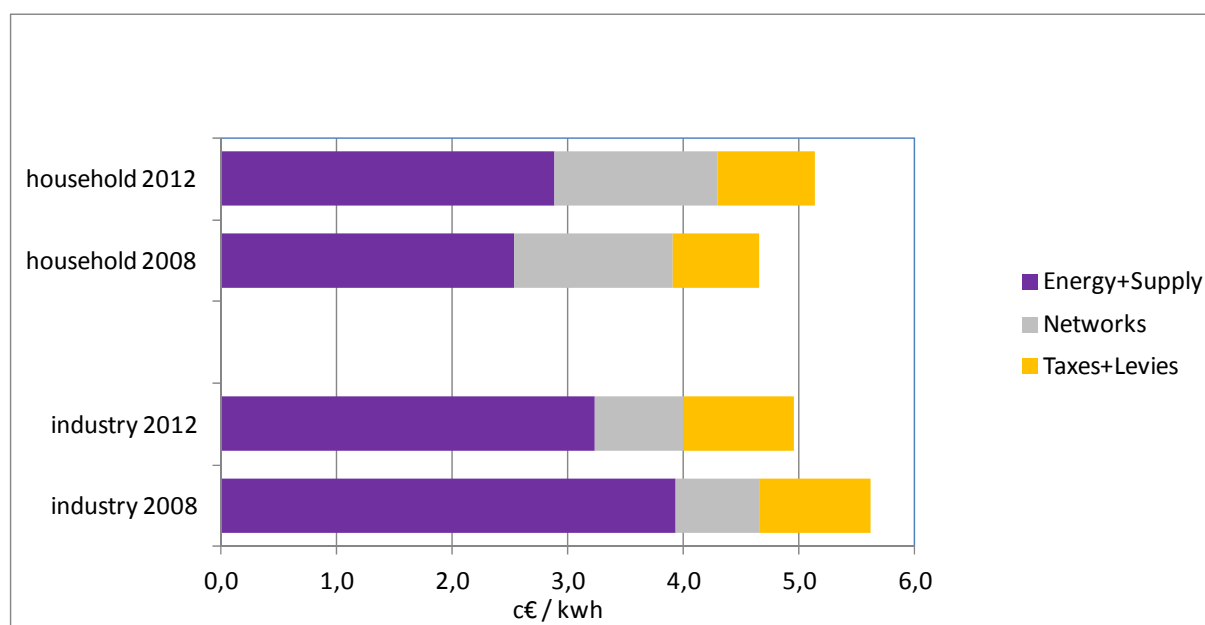
Gas prices for household consumers increased between 2008 and 2012. Gas prices for industrial users decreased over the same period because their energy component decreased by almost 20%.⁴⁶⁹ Prices for households remained regulated.

⁴⁶⁶ ACER's Market Monitoring Report

⁴⁶⁷ ACER's Market Monitoring Report

⁴⁶⁸ CEER database

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



The number of household consumers who switched gas suppliers in 2012 reached over 131,000 (9.25% of all the households) and was six times bigger than in 2011. The number of switches is still relatively low.

5. Consumers

Consumers' overall assessment of the retail electricity and gas markets is above the EU average (78.1 points compared to 72.0 and 79.2 compared to 74.1), corresponding in both cases to 5th place EU-wide. Both markets are also assessed above the average of 31 domestic services markets (13th and 10th place, respectively). They score better than the EU average on all indicators, with the exception of consumer complaints (which are more numerous than in other EU countries) and in the case of electricity market switching rates are also slightly lower than the EU average.⁴⁷⁰

In 2012, the number of complaints submitted to URSO by the gas and electricity entities increased fourfold. In 2012, automatic compensation payments for the violation of quality standards for energy services were introduced, but were used only occasionally. Customers reported over 200 potential infringements of electricity and gas market rules and the majority of complaints related to switching. For better consumer empowerment, URSO has a power price comparison tool and energy price calculator on their website⁴⁷¹.

A definition of “vulnerable consumer” was introduced in 2012. Its scope was extended from the previous definition including only households, to a broader one also covering small businesses. Even

⁴⁶⁹ The EC, Energy Prices and Costs report, 2014.

⁴⁷⁰ 10th Consumer Markets Scoreboard,

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

⁴⁷¹ <http://www.urso.gov.sk:8088/CISRES/Agenda.nsf/KalkulackaElektrinaNewWeb>.

though Slovakia has defined "vulnerable consumers" and "energy poverty", there are no specific support measures available for vulnerable customers and consumers in energy poverty.

6. Infrastructure

Electricity

An important part of energy infrastructure investment in Slovakia involves funds from BIDSF (Bohunice International Decommissioning Support Fund). Almost EUR 150 million has been made available to private companies and housing associations for implementation of energy efficiency and renewable energy projects⁴⁷².

Slovakia is interconnected to Czech Republic, Hungary and Poland. The Slovak transmission system is affected by the loop flows which originate most frequently from Germany and are passed through Poland into Czech Republic and Slovakia. Significant congestions also occur on the Slovak-Hungarian border. Further interconnections with Hungary are planned, three projects having been selected as Projects of Common Interest (PCIs) under the guidelines for Trans-European Energy Infrastructure. Adding to these, the reinforcement of the national grid is envisaged through the construction of two internal lines projects that also have PCI status. The importance of the PCIs implementation is reflected in the increase of the electricity interconnection level (import capacity/net generation capacity) from 37% nowadays to 54% after their implementation. Moreover, the impact is even more visible for neighbouring countries, such as Hungary, increasing from 15-30% to values above 30% on the 2020+ time horizon.

The construction of two additional units at Mochovce power plant was started in 2008.

Gas

A bi-directional high pressure gas pipeline interconnecting the gas systems of Hungary and Slovakia has been constructed and is expected to start operating very soon. The project is co-financed through the European Energy Programme for Recovery and has also acquired PCI status. The Polish–Slovak interconnection, also a PCI, is currently being developed. These projects will diversify the routes of gas supply pipelines, running across Visegrad group countries, and connect two LNG terminals in Poland and Croatia.

7. Security of Supply

Electricity

Security of supply in Slovakia is expected to be strengthened considerably after the two additional units at Mochovce nuclear power plant, each of 440 MW installed capacity, are commissioned.

Slovakia suffers from unscheduled electricity loop flows from Germany, threatening the secure grid operation and cross-border wholesale trade. To mitigate the loop flows Slovakia reconfigured its border substations. It helped to restore the N-1 security principle, but also increased losses in the

⁴⁷² IEA, Energy Policy Highlights, 2013.

transmission system. Slovakia has considered installing phase shift transformers. This problem could also be alleviated by increased interconnecting capacity.

Gas

Natural gas is currently the most significant energy source in Slovakia and roughly 98% of domestic gas consumption is covered by import under the long-term contracts between SPP and Gazprom. The gas supply disruption of 2009 was an important lesson that Slovakia needs to consider diversifying its energy portfolio. Gas storage capacities have been increased and reverse flow at the Western border interconnectors has been enabled. Ongoing investment in gas interconnecting infrastructure will open new directions for gas import to Slovakia.

8. Key indicators

Electricity		Gas	
Number of companies representing at least 95% of net power generation	11	Number of entities bringing natural gas into country	8
Number of main power-generation companies	1	Number of main gas entities	3
Market share of the largest power-generation company	78.9%	Market share of the largest entity bringing natural gas	61.8%
Number of electricity retailers	71	Number of retailers selling natural gas to final customers	22
Number of main electricity retailers	4	Number of main natural gas retailers	2
Switching rate	5%	Switching rate for gas (household consumers)	11.56%
Regulated prices for households – electricity	Yes	Regulated prices for households – gas	Yes
Regulated prices for non-households – electricity	Yes	Regulated prices for non-households – gas	Yes for SMEs
HHI in power-generation market	N/A	HHI in gas supply market (domestic)	N/A
HHI in electricity retail market (domestic)	N/A	HHI in gas retail market (domestic)	N/A

Electricity market value ⁴⁷³ (bn€)	2.662	Gas market value ²⁰ (bn€)	1.135
Installed generation capacity (MW, 2011)	8,056		
Peak load (MW)	4,395		
Number of smart meters installed	N/A		

⁴⁷³Market 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.