

2 Main developments in the electricity and gas markets

2.1 Wholesale market

2.1.1 Electricity

The step-by-step opening of the Czech electricity market took place from 2002. The market has been fully liberalised since 1 January 2006.

As early as 2007, the system of trading on the Czech electricity market changed completely: the principle of wholesale electricity sales, applied until then and based on auctions organised by ČEZ, a.s. every year and on bilateral contracts between electricity producers and traders, was replaced by continuous trading through the Prague Energy Exchange. Together with the high volatility of energy commodity prices throughout 2008 and the broader range of products offered by electricity suppliers to final customers, this change influenced suppliers' purchase strategies and resulted in a more competitive environment amongst traders. In particular large and medium-sized customers now have the opportunity to time their electricity purchases with regard to the current prices on the exchange.

Auction mechanisms (in particular an expansion of coordinated auctions within the region and the introduction of intra-day cross-border trading) played the greatest role in the trading in cross-border transmission capacities in the central European region as regards international trade in electricity. In 2008 a mechanism for the operation of a common day-ahead market between the Czech Republic and Slovakia was devised on the principle of implicit auctions, and the relevant legislation was modified for this purpose.

2.1.2 Gas

The year 2008 was the second year in which all customers, including households, were eligible customers. This position has provided all customers with the right to select their gas supplier by way of a free-of-charge change of supplier, and, in turn, the opportunity to influence the uncontrolled part of their overall costs of natural gas supply, i.e., the commodity itself, and the services related to gas storage.

The natural gas market in 2008 can be described as a market on which competition was gradually developing and intensifying, and extending to all final customer segments. The conditions for the working of the gas market are set out in the two most important pieces of legislation. Act No. 458/2000, (the Energy Act), as amended, and ERO public notice no. 524/2006 laying down the rules for the organisation of the gas market and for the development, allocation and use of typical gas supply profiles (gas market rules), as amended, which entered into force on 1 January 2007. A number of new gas traders started to operate on the liberalised market; they discerned their opportunities to approach customers in the Czech Republic with their offering of the services and products that enabled them to compete with the incumbent gas suppliers. Thus, 2008 was a year marked by a more distinctive increase in gas supplier switching in all customer categories.

The year 2008 also saw an increase in the number of traders importing natural gas into the Czech Republic. In addition to RWE Transgas, a.s., which holds a dominant market position due to historical development and which supplies gas only to gas traders in the Czech Republic (i.e., not final customers), and further in addition to VEMEX s.r.o., a subsidiary of the Russian gas company OAO Gazprom, which supplies gas to both gas traders and final customers in the Czech Republic, the following companies started to import natural gas into the Czech Republic: Česká plynárenská, a.s., which won a gas sales agreement in Norway,

Lumius, spol. s r.o., which mainly buys natural gas in Germany, and the German company WINGAS GmbH & Co. KG.

The above developments in the wholesale gas market did not, however, have any significant influence on gas consumption in the Czech Republic in 2008. In 2008 gas consumption increased slightly in comparison with 2007, but averaged over the last decade, it was sub-average consumption again. The low consumption can be attributed to a year with above-average temperatures. Average annual temperature was 9.3 °C, i.e., 1.3 °C above the normal value.

2.2 Retail market

2.2.1 Electricity

The liberalised electricity market functioned for the third year in 2008. Although all final customers already were eligible customers with the right to select their electricity supplier, only two per cent of customers used this opportunity from the moment of electricity market opening. Specifically, the data recorded by Operátor trhu s elektřinou, a.s. (OTE, Electricity Market Operator) is shown in Table 1. Of the supplier switches that took place, for 2,898 supply points the voltage level was not recorded.

Table 1 Final customers; electricity supplier switching

Type of supply	2007		2008	
	Number of changed supply points	Switching [%]	Number of changed supply points	Switching [%]
High-demand customers, EHV, HV	4,353	19.0	6,549	28.6
Low-demand business customers, LV	5,733	0.7	35,351	4.3
Households	15,385	0.3	15,764	0.3

Note: Switching – the ratio between the number of electricity supplier changes per year and the total number of supply points in the same year.

Source: Operátor trhu s elektřinou, a.s.

The electricity market was mainly developing in the segments of large and medium-sized customers, where a sufficient number of traders were actively operating. However, the situation is very different in the segment of low-demand businesses and households, where less than ten traders out of the more than 300 licensed electricity traders were operating in any appreciable way on the national scale.

To help customers find their way about the liberalised market the Office has set up a Frequently Asked Questions (FAQ) section on its website, which summarises customers' frequently asked questions and answers them in a comprehensible way. The Office monitors the development of consumers' questions and updates the FAQ section on a regular basis in response to these suggestions. The Office has also placed on its website an interactive ready reckoner for electricity supply prices, with the help of which every low-demand customer connected to the low voltage level can, after keying in the input parameters (the distribution rate, the level of consumption), compare their overall cost of electricity supply from each of the suppliers and find the best supplier with regard to the nature and size of their consumption. The ready reckoner is being updated on the basis of information received from

suppliers, who have provided the Office with their price quotations for electrical energy products intended for small customers.

The prices of electricity supplies to all customer categories for 2008 were influenced by the rising wholesale price of energy. As in the last few years, this increase is not attributable only to the working of market mechanisms on the domestic market (structure of generating capacities, future demand, etc.), but also, and to a significant extent, to electricity demand and prices in neighbouring countries due to the fact that the grids are interconnected. This was also reflected in the results of trading on the Prague Energy Exchange (PXE): already in the first months of trading, electricity prices were about 17 per cent higher than the year before due to demand outstripping supply. This was then reflected in both overall prices for final customers and a part of regulated items (network use charges).

In 2008 an environmental tax on electricity was first added to the electricity supply price as an additional item. The legal provisions on electricity taxation are contained in Act No. 261/2007 on the stabilisation of public budgets, in its Part 47 Electricity Tax. The tax rate is CZK 28.30/MWh, with the exception of tax-exempt electricity produced from renewable energy sources and also electricity consumed in energy-intensive processes and public transport.

At the low voltage level, the same range of tariffs, including the conditions for awarding them, as in 2007 was maintained for small businesses (category C) and households (category D) for 2008.

Suppliers usually adjust their offering prices of energy once a year, i.e., as from 1 January of the new calendar year. Some suppliers have also started to offer a product where the offering price of energy depends on electricity prices at energy exchanges during the year to small customers.

2.2.2 Gas

New gas traders started to operate on the market in 2008; in connection with the continued development of market liberalisation, many customers changed their gas supplier. In addition to gas traders of the RWE Group and of E.ON Energie, a.s., and Pražská plynárenská, a.s., VEMEX s.r.o., Moravské naftové doly, a.s., Petr Lamich - LAMA (formerly a self-employed person) (newly LAMA INVESTMENTS, a.s.), United Energy Trading, a.s., Česká energie, a.s., and VNG Energie Czech, a.s., from the beginning of the year some other new gas traders appeared on the market, for example, CONTE spol. s r.o., Pragoplyn, a.s., Lumius, spol. s r.o., Energie Bohemia, a.s., WINGAS GmbH & Co. KG, and Lumen Energy, a.s. In connection with the contemplated development of combined cycle units also ČEZ, a.s. is actively interested in business opportunities on the gas market.

Table 2 shows supplier switching by final customer category and indicates the number of final customers who changed their gas supplier in 2007 and 2008. In 2008 the large-offtake category was the most active; its switching ratio was 6.7 per cent. As regards the number of gas supplier changes in absolute terms, Table 2 shows that in 2008 gas traders' focus shifted towards winning lower offtake customers. The largest number of supply points changed their gas supplier in the small offtake category.

Table 2 Final customers' gas supplier switching

Demand	2007	2008	2008	2008
	Number of changed supply points	Number of changed supply points	Total number of supply points	Switching [%]
Large offtake	100	128	1,904	6.7
Medium offtake	2	84	6,838	1.2
Small offtake	0	315	198,771	0.2
Households	1	11	2,657,056	0.0

Note:

1) Switching – the ratio between the number of gas supplier switches per year and the total number of supply points in that year.

2) The figures in the Table do not include supplier switching for reasons caused by the suppliers themselves.

Source: Balancing Centre

New gas traders most frequently cite the limited accessibility to Czech underground gas storage facilities, which are needed for structuring supplies in the course of a year, as one of the reasons for their difficulties in penetrating the Czech market. In fact, the storage capacity has been covered for the long term by contracts owned by RWE Transgas, a.s., which is a part of a vertically integrated group that also includes the largest Czech SSO RWE Gas Storage, s.r.o. This fact was therefore subjected to inquiry conducted by the Office for the Protection of Competition (ÚOHS) and also the ERO, which changed the procedure for storage capacity booking in the Czech Republic with effect from 1 October 2008 in its amended public notice on gas market rules. The need to address the issue of underground gas storage is also borne out by the administrative proceedings conducted by the ERO in 2007 and 2008 on access to the storage capacity owned by RWE Gas Storage, s.r.o. Prior to amendment, the public notice contained rules for storage capacity booking in cases of capacity shortages on the *pro rata* principle (storage capacity booking pro rated to the size of the individual requests), which did not completely reflect the principles of negotiated, i.e., market-driven, access to storage capacity.

When amending the public notice the Office therefore wanted to introduce such rules for storage capacity booking, which would help to create adequate requests for storage capacity and give clear pricing and investment signals, and comply with negotiated TPA. The new rules are to support the development of storage capacity through the extension of the existing and the building of new underground gas storage facilities in the Czech Republic. For storage capacity allocation, the method of multi-round online auctions has been selected. The definition of storage capacity has been broken down to “storage capacity” meaning the existing, already used capacity, and “new storage capacity” defined as storage capacity put on stream after 1 January 2010. The ways of booking these two types of storage capacity differ in terms of both the time limits within which capacity can be requested and the duration and type of the gas storage agreement. The gas market rules contain a constraint for the dominant gas traders. Gas traders who are part of the same group as the SSO and who have booked with the SSO storage capacity amounting to at least 80 per cent of the capacity of the virtual storage facility operated by the SSO, may only participate in a storage capacity auction if the price per unit of storage capacity is lower than or equal to the current market price of storage capacity. These measures are mainly intended to support the development of the Czech gas market by opening access to storage capacity for additional gas market players and also by preventing affiliated companies from speculatively increasing prices.

2.3 Infrastructure

2.3.1 Electricity

From the perspective of investment in electricity networks, in 2008 the most noteworthy capital investment project at the level of the transmission system was the refurbishment of a 42 km long 400 kV line from the Slavětice transformer station to the Dürnröhr transformer station in Austria. Part of the refurbishment was an upgrade of the single-circuit line to a double-circuit line and replacement of the second earth wire.

This project is part of ČEPS's long-term investment plan for the reinforcement of the transmission line from north to south, Poland – Czech Republic – Austria. This newly double-circuit line considerably helps to improve the reliability of the Czech transmission system and, naturally, to reinforce the interconnection within Europe and to improve the reliability of the electricity grid within EU countries' international interconnection.

2.3.2 Gas

As regards investment in new infrastructure, there was no major capital investment project in 2008. Preparations for the construction of two planned gas pipelines in the Czech Republic continued. One of these pipelines is to be a continuation of the newly built northern route for natural gas transport from Russia to Europe through Nord Stream and the connected OPAL pipeline in Germany. In the Czech Republic, this route is to continue by the GAZELLE pipeline connecting the border points at Olbernhau and Waidhaus. The results of a survey indicate tentative demand for this route's capacity to amount to 30 to 33 bcm/year.

However, from the Czech perspective, no gas intended to meet the final customers' needs in the Czech Republic will flow through the OPAL pipeline. From the Czech Republic's point of view, the importance of this route is therefore neutral, because most of the gas to be transported in the future is intended for customers in Germany.

The other project being considered is a pipeline connecting the Czech and Polish transmission system near Český Těšín. The new pipeline is to mainly serve for supplying Polish customers. For example, Russian gas might flow through this pipeline into the Czech Republic, but solely subject to the condition that the Polish gas market is fully liberalised and provides enough gas for trading and that a part of the pipeline network on the Polish side is modified so that the system supports reverse flows of gas into the Czech Republic.

In 2008 RWE Gas Storage, s.r.o. disclosed its plan to expand the capacity of its underground gas storage facilities in the coming years, specifically by 795 mcm. The other Czech SSO, MND Gas Storage, a.s., is also planning to expand its capacity, specifically by 450 mcm.

2.4 Regulation and unbundling

Electricity and gas

The Office systematically inspects unbundled accounts of legally unbundled companies, from which it requires separate accounts for each of the transmission and distribution activities with a view to preventing discriminatory practices. However, the regulator does not have any competences to impose sanctions; in the Czech Republic, this is fully within the competences of another state administration authority, the State Energy Inspectorate (SEI).

The Office's competences for enforcing managerial and functional unbundling are limited by Directives 2003/54/EC and 2003/55/EC concerning common rules for the internal market in electricity and natural gas, respectively, as transposed to the Czech national legislation through the Energy Act. All of the Energy Act's requirements for regulated companies'

independence and their non-discriminatory approach to the other market players have been defined and implemented in a document called *Programme of Measures*. This treatment was the same for all distribution companies and the gas transmission company. The electricity transmission company is an exception, as it is unbundled in ownership terms.

2.5 Security of supply

2.5.1 Electricity

In 2008 the installed capacity of thermal power stations, including cogeneration, increased by 37 MW in comparison with 2007, and the installed capacity of gas-fired and combined cycle plants increased by 83 MW. The installed capacity of plants that use renewable and alternative resources also went up year-on-year, by 43 MW. The installed capacity of hydroelectric power stations increased by 16 MW year-on-year. Alternative power stations experienced a decrease by almost 10 MW. Most of the increase, more than 36 MW, is attributable to wind power plants.

The total annual increase in the generation capacity installed in the electricity grid amounted to 163 MW. On 31 December 2008 the total installed capacity of power stations in the Czech grid was 17,724 MW. The above increase in the overall installed capacity was mainly achieved by investment in retrofits of the existing generating plants.

The country's total electricity consumption, including network losses, was 72.0 TWh in 2008, i.e., the same as in 2007 (the drop in consumption in 4Q 2008 was set off by year-on-year increases in the preceding quarters of the year). The grid experienced the annual peak demand on 14 February 2008 at 3 p.m. when gross consumption amounted to 10,880 MW.

The achieved reliability of the Czech electricity system's total balanced output meets the requirements for rational values of reliability. It is possible to provide for the safe operation of the system (ancillary services) over the medium term, despite some increases in demand. With the exception of the potential significant swings in the output from off-shore and seaside wind power plants, no anomalies appear in the operation of the generating capacities in covering the load profiles and predicted imbalances.

2.5.2 Gas

Security of supply as required by Directive 2004/67/EC has been implemented in Czech legislation through public notice no. 375/2005 on the states of emergency in the gas industry, which introduces procedures designed for preventing emergencies in the gas industry, procedures to be followed in the case of the occurrence, and elimination of the consequences of, emergencies, and the use of the gas supply security standard. Gas traders and the final customers who procure gas themselves can provide for the gas supply security standard to the extent applicable to the trader/customer through their gas supplier.

In the 2008 winter season the gas supply security standard was provided for, and totalled 65,775,000 cu m/day. Suppliers RWE Transgas, a.s., MND, a.s. and VEMEX, s.r.o. guaranteed supplies by their imports and withdrawal from underground gas storage facilities.

In 2008 a total of 8.693 bcm of natural gas was delivered to the Czech Republic, while 8.685 bcm of gas was consumed. This suggests that in the Czech Republic, supply and demand were balanced. In principle, natural gas can be imported into the Czech Republic via three border points – Lanžhot (mainly Russian gas and the gas bought at the Baumgarten hub), Hora sv. Kateřiny (Norwegian gas and, in the future, Russian gas from the Nord Stream pipeline) and Waidhaus (gas bought on spot markets).

In connection with the diversification of natural gas sources and routes, there are plans to build the Nord Stream pipeline and a pipeline to connect the Czech and Polish gas systems near Český Těšín, as mentioned above in point 2.3.2.

The Ministry of Industry and Trade of the Czech Republic has the role of the authority that oversees and permits the development of the gas system; for more detailed information please see point 5.2.4.

2.6 General conclusions

In 2008 the liberalised electricity market worked for the third year. Although all final customers had become eligible customers with the right to select their electricity supplier, from the opening of the electricity market only two per cent of customers used this opportunity. The system of trading on the electricity market was changed when annual auctions organised by ČEZ, a.s. were replaced by continuous trading on the Prague Energy Exchange. Together with the high volatility of energy commodity prices throughout 2008 and a broader range of the products offered by electricity suppliers to final customers, this has helped to strengthen the competitive environment in the electricity market.

The natural gas market in 2008 can be characterised as a market in which competition gradually intensified and developed, extending to all final customer segments. In the liberalised market, a number of new gas traders started to operate. Thus, 2008 was a year marked by a more significant growth in the number of gas supplier switches in all customer categories.

Improvement of primary and secondary energy legislation continued in the Czech Republic in 2008. In this respect, the most important step was the comprehensive amendment to the Energy Act, which Czech Parliament started to debate in the latter half of 2008.

The Czech Republic devoted extreme attention to the third liberalisation package. For its EU presidency in the first half of 2009 it therefore set the endorsement of the package as one of its priorities. The country therefore made considerable efforts in respect of the amendment to the directives on common rules for the internal electricity and gas markets. The Czech Republic is a country with highly above-average volumes of electricity and gas transmission, and therefore considers the development of a high-quality legislative environment to be crucial; in conjunction with the electricity and gas TSOs' newly emerging European networks, such environment is expected to considerably contribute to the next stage of the energy market's development. The Czech Republic expects that these organisations, together with the European Commission and market players will proceed, without any delay, to the development of common grid codes and commercial codes that, together with some other documents such as ten-year investment plans, will clearly determine the character of the internal energy market for the coming years and facilitate the overcoming of regional differences to help give rise to the EU's single liquid internal market.

In the past period the Office worked with CEER and ERGEG with a view to achieving a single and competitive European energy market. The co-operation mainly consisted in its active participation in the meetings of working groups on electricity, gas, ownership unbundling, customers, and the third liberalisation package, and implementing the knowledge so gained into the Czech regulatory framework.