Agencija za energijo

Report on the Energy Sector

in Slovenia for 2013

Everything is Energy!

Introduction

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Director

For the Slovenian energy sector and the national regulator, the year 2013 was the year of high expectations of urgently needed amendments of the energy legislation. Conflict of interests between the requirements set by the European Union in relation to the Third Energy Package, and development of the energy markets and regulatory practices on one side, and the energy legislation in force on the other side became more and more apparent. Adopting of the new legislation was conducted through a public hearing in June 2013. After examination of the comments, the Government in October sent the draft of the law to the National Assembly. The process of adoption was ended in February 2014, and the new Energy Act came into force on 22 March 2014.

With the respect to the development of energy markets, their competitiveness and security, as well as quality of supply, 2013 was for Slovenia a good year. Struggle for electricity and gas customers became sharper and strengthened the competition. Nevertheless, it was noticed that the competition somehow slowed down in the retail market for household consumers. Ac-

cording to the number of switchings, and the amount of energy related to these switchings, the biggest changes occurred with respect to large consumers, or companies. 14,998 business consumers switched their electricity supplier, the year before only 6478. In natural gas market, the number of switchings of business consumers was lower than in 2012, but the amount of gas associated with the switching activities increased from 152.9 GWh in 2012 to 270.5 GWh in 2013.

Positive effects of competition were mainly noticed in natural gas market, where prices continued to fall, and became closer to prices in EU. The number of importers increased, which improved the competitiveness of the market, but, on the other hand, the Slovenia's dependence on Russian gas increased a lot, since 58% of all gas was imported from Russia. The natural gas consumption fell again, for the third year in a roll, namely for 2%, and the consumption of business consumers by as much as 4.5%. In 2013, important rules on governing the effective management of the natural gas network in case of congestion were adopted. Apart from this, the method for setting the network charge was changed; by implementing the entry-exit method we harmonized the calculation with other countries of the EU.

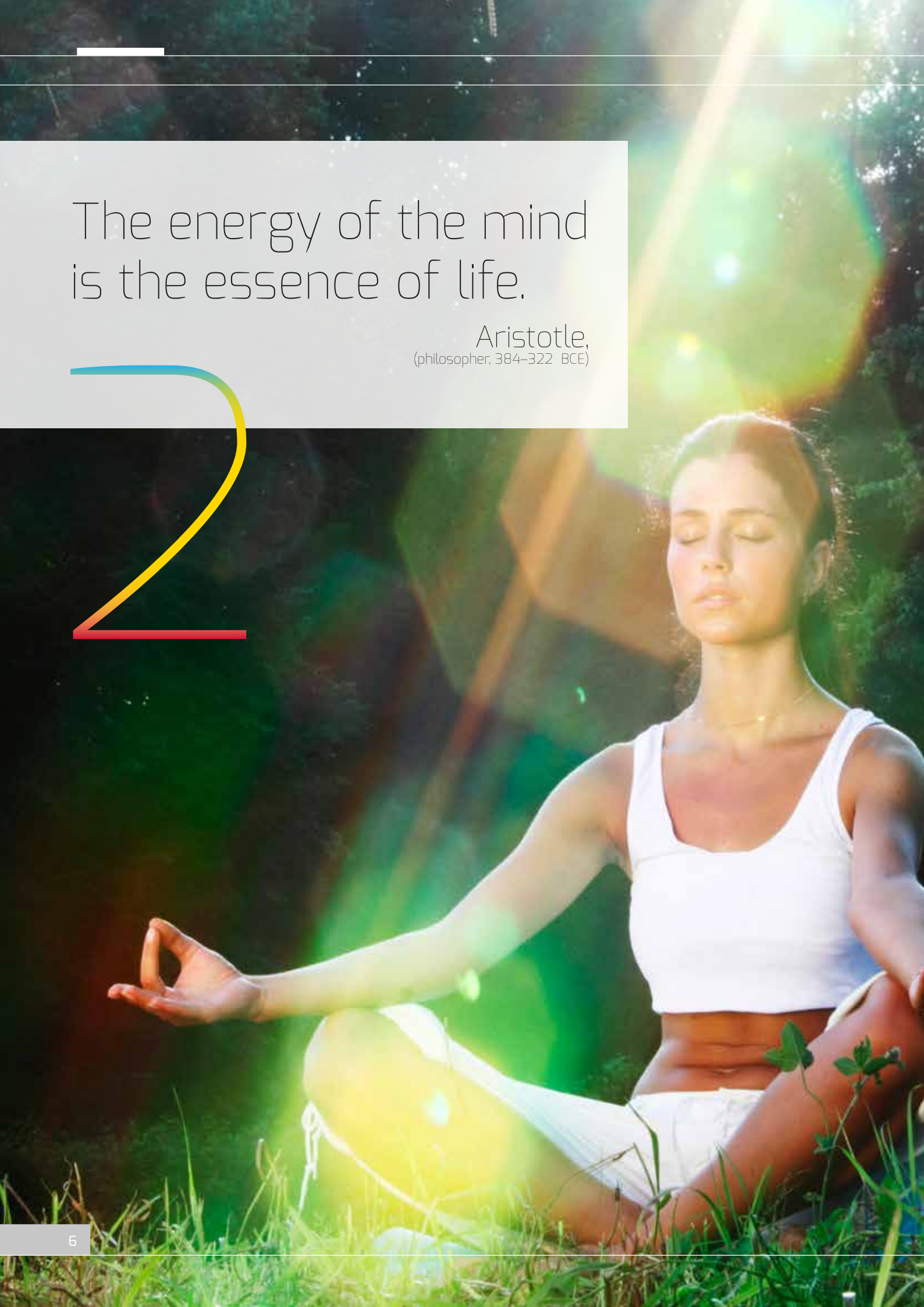
Electricity prices followed for consumer favourable trends in Power Exchanges, but contributions for the support of the eco-friendly generation of electricity with almost 300% increase practically flew into the sky. And as a result, the final electricity prices increased, and the situation calls for consideration of future national policy regarding renewable energy sources. In 2013, more EU countries faced this problem, and so it became a topical issue of the EU energy policy. In Slovenia, € 118.4 million of support were paid for the production facilities included in the support scheme, and which produced 803 GWh of electricity.

Domestic production sources covered around 91% of the Slovenian electricity consumption, which along with the developed European electricity market and its production surpluses raise the question on the prudence of increasing production by using expensive and environmentally questionable sources. In 2013, in hydro power plants and other facilities using RES 37% of electricity was produced, thermoelectric power plants generated 30%, and 33% was generated by the nuclear power plant. The hydro power plant Krško started its trial operation.

The new three-year regulatory period entered into force for both electricity system operators. Increased cross-border trade and the cost of ancillary services provided the decrease in the network charge for the transmission network; the network charge for the distribution network remained unchanged.

In 2013, the service of heat distribution was, in the Republic of Slovenia, carried out by 79 licence holders. The heat distribution networks were set up in 54 of the 211 Slovenian municipalities, their total length being 752.9 kilometres. In comparison with 2012, the price for heat decreased by 9.1%.

The Report on the Energy Sector in Slovenia every year offers a comprehensive overview of the energy sector in Slovenia. The report is intended to communicate with the National Assembly, the Government, the professional and general public, and also sent to the European Commission. Together with the reports of other EU energy regulators the report is published also on the website of the Council of European Energy Regulators (CEER).



The energy of the mind is the essence of life.

Aristotle,
(philosopher, 384–322 BCE)

Development of the energy markets and the main activities of the regulator

2.1 The basic details regarding the markets for electricity and natural gas in Slovenia

Slovenia

Population (1. 1. 2014)	2,061,085
Area	20,273 km^2
Number of electricity customers (31. 12. 2013)	933,041
Number of natural-gas customers (31. 12. 2013)	132,939
Gross domestic product (GDP)	35,275 million euros
Decrease in GDP	-1.2%
Inflation	0.7%
GDP per person	17,128 euros

Sources: Statistical Office of the Republic of Slovenia, Energy Agency

Electricity

Installed capacity	**3,622 MW**	
Hydroelectric power plants		1,154 MW
Thermoelectric power plants		1,240 MW
Nuclear power plant		696 MW
Small producers		532 MW
Production of electricity	**14,954 GWh**	
Hydroelectric power plants		4,480 GWh
Thermoelectric power plants		4,381 GWh
Nuclear power plant		5,023 GWh
Small producers		1,070 GWh
Length of the transmission network	**2,843 km**	
– 400 kV		669 km
– 220 kV		328 km
– 110 kV		1,833 km
– cables		13 km
Length of the distribution networks	**64,993 km**	
– 110 kV		853 km
– 35, 20 in 10 kV		17,422 km
– 0,4 kV		46,718 km
Consumption of electricity	**12,816 GWh**	
PSPP Avče		392 GWh
Business consumers		9,196 GWh
Household consumers		3,228 GWh
Annual consumption person/year	**6,218 kWh**	
Average household consumption per month	**325 kWh**	

Sources: System operators

Natural gas

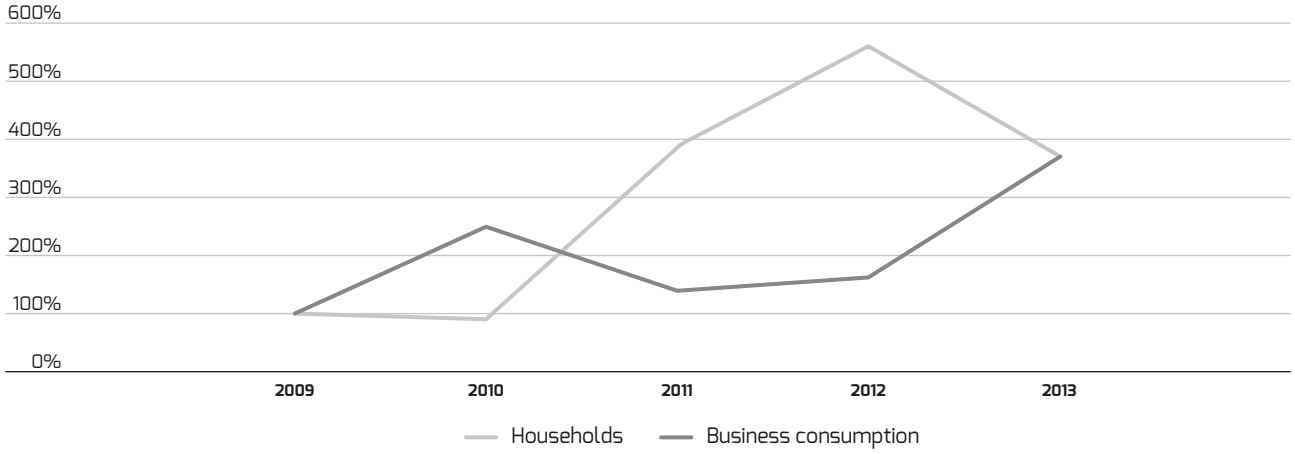
Length of the transmission network	**1,121 km**	
– more than 16 barov		912 km
– less than 16 barov		209 km
Length of the distribution networks (up to 16 bar)	**4,449 km**	
Consumption of natural gas	**844 million Sm^3**	
Consumers on the distribution networks		297 million Sm^3
Industrial consumers		547 million Sm^3
Annual consumption person/year	**410 Sm^3**	

Sources: Companies' data

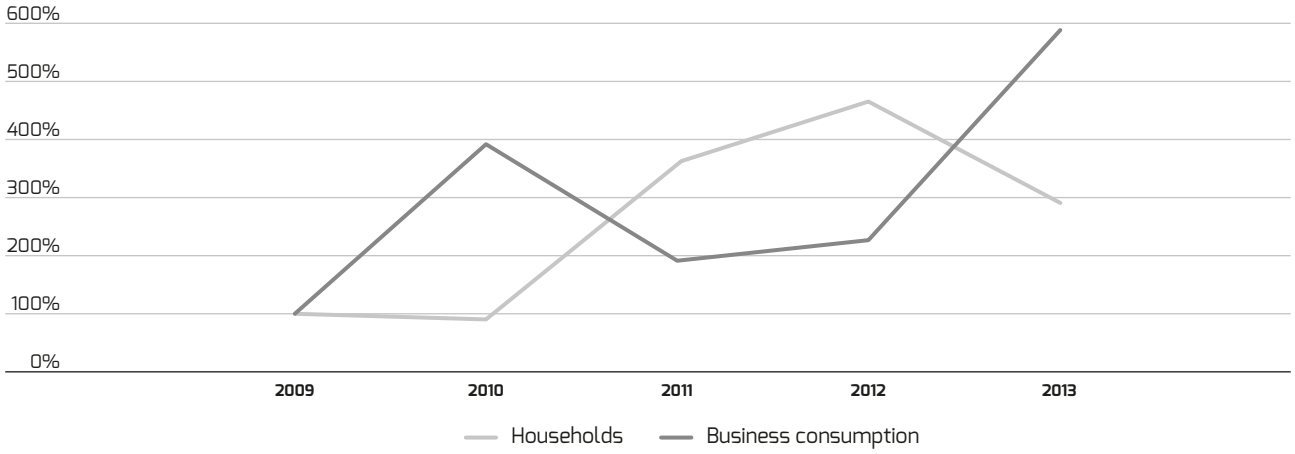
2.2 The development in the electricity market

Low economic growth and energy efficiency projects have reduced long-term growth in electricity consumption. Industrial consumption was in 2013 even lower than the year before, setting new boundary point in supplying electricity to industrial consumers on the distribution network. Competitive retail market had provided a reduction in electricity prices. Falling electricity prices on forward markets as well as on day ahead markets on most of the European stock exchanges led to decrease in electricity prices. Number of switchings and switched volumes were in 2013 the highest ever. In the retail market opposite trend occurred. For these consumers, still a moderate growth of electricity consumption was noticed, but it did not cause changes in electricity prices. Prices remained at the same level, which resulted in a downward trend of households switching electricity supplier.

Electricity switching numbers



The amount of electricity involved in switching of electricity supplier (GWh)



In 2013, the new three-year regulatory framework came into force, which determines the operating conditions for transmission and distribution system operators (hereinafter referred to as electricity TSO/DSO). Increased cross-border trading and the costs of providing ancillary services enabled a reduction in a network charge for the transmission network, while the level of a network charge for the distribution networks remained the same. However, the investments in the network continued. The trial operation of 400 KV transmission line between Beričevo and Krško, an important link for the security of electricity supply for the central Slovenia and for trading with the neighbouring countries, started at the end of 2013. In the distribution, the process of replacing traditional meters with advanced metering systems continued even more intensively enabling active participations by consumers in the electricity markets, accounting for the actual energy consumption, the use of the new calculation methods adapted to supply and demand, and the provision of services by suppliers. The transition to the new technologies is provided also by Directive (EC) 714/2009, which requires from the Member States to carry out an economic assessment of all the long-term costs and benefits to the market and the individual consumers.

Despite lower electricity prices, the investment cycle in Thermoelectric power plant Šoštanj (TEŠ 6) continued, and meanwhile, the trial operation of the Hydroelectric Power Plant Krško started; its construction began in November 2007.

In order to ensure the sustainability of the support scheme and the continuation of the operation of the production facilities on RES and from CHP, the Government of the Republic of Slovenia at the beginning and in the middle of the year change the contribution for the operation of the support scheme, which is paid by all electricity consumers. Unstable conditions for the functioning of a support mechanism caused that investments into RES and CHP in 2013, after years of positive trends, decreased. In spite of favourable conditions in for the production of solar power plants, the share of new such plants halved in comparison with 2012. Positive trend of investments continued only for cogeneration of heat and electricity.

At EU level, the transmission system operators, interested public and ACER together with NRAs continued the development of network codes in accordance with Regulation (EC) No 714/2009. To achieve the objectives set by the European Commission following the adoption of the 3rd Package, to create single European market, coordination meetings were held during the whole year, but till the end of the 2013 none of the nine planned network codes were adopted.

2.3 The development in the natural gas market

In 2013, consumers of natural gas were actively involved and used the advantages of an active market. Processes of switching of suppliers, decrease in prices and new suppliers entering the market continued.

The number of natural gas importers increased, as well as their market shares. Indicators of market competitiveness show the improving or increasing competition in the Slovenian retail natural gas market. Comparison of gas supply prices between the EU countries indicates that in Slovenia prices are decreasing and getting closer to the average prices for typical industrial consumers and even more for household consumers.

Due to different sources of natural gas in supply routes the dependence on Russian gas became more evident, which has a negative impact on diversification of production sources.

As the gas TSO acts as an independent transmission system operator, is obliged to submit for approval every year to the Energy Agency a ten-year network development plan (TYNDP), which includes a detailed specification of planned investments for the next three years. In 2013, the Energy Agency for the first time issued an approval to submitted plan.

In 2013, natural gas consumption in Slovenia decreased by 2%, nevertheless, this decrease was half of the one in 2012. However, the consumption of large industrial consumers connected

directly to the transmission network fell again for 4.5%, which is almost the same percentage as the year before. Increased consumption was, therefore, mainly result of increased consumption of consumers on the distribution network, where was higher by 2.7%. Household consumption increased the most.

Higher natural gas consumption can be attributed to increase in competition, especially in the retail market, where the gas prices also decreased the most. In case of consumption of industrial consumers, the effects of economic crisis are still present.

In 2013, the important rules on congestion management were adopted. With the Energy Agency's agreement the gas TSO adopted the rules permitting the use of three new mechanisms to eliminate congestion. The gas TSO used those mechanism at the end of 2013, when contractual congestion occurred at the border points Ceršak and Rogatec.

For household consumers, the mutual agreement between suppliers and gas DSO was important. The agreement refers to relationships that are the basis for the payment of consumed gas and the network charge with one gas bill, or universal payment order. From June 2013, the majority of household consumers can pay the consumed gas with only one bill even after switching supplier.

The introduction of entry-exit method in 2013 changed the method of calculating the network charges for the transmission network, and, thus, we harmonized with other EU countries, as provided in EU regulations. At the end of 2013, the gas TSO received an approval to the network charge for the transmission network for the period 1 January 2014 and 31 December 2016. Network charges were published in the Official Gazette of the Republic of Slovenia.

2.4 The main areas that involved the regulator

Operation of the Energy Agency, the Slovenian energy regulator, was also in 2013 marked by the Third Package of EU directives and regulations. The implementation was not carried out, but its drafting, and at the end of the year also the adoption of the new energy legislation (Energy Act, EA-1), which comprehensively regulates the energy sector. During the drafting, the Energy Agency actively participated and cooperated with relevant ministries and professional public. In public consultation process, it submitted its comments, especially for the areas of regulated activities and network charges, monitoring, security of supply, district heating and Energy Agency's status and tasks.

The Third Package imposes on NRAs a greater scope of work and responsibilities. Some of the provision that are directly transferable have already affected the Energy Agency's scope of work, and for certain tasks after the implementation the Energy Agency had already set the ground.

In the international area, the Energy Agency regularly cooperated with the Agency for the Cooperation of Energy Regulators (ACER). The scope of work and our obligations in the regulatory cooperation at international level increased as well, mainly because of the tasks foreseen in the Third Package, ACER's powers and to these related duties of national regulators.

The Energy Agency actively participated in ACER and CEER working groups, which affect the implementation of European Regulation on Wholesale Energy Market Integrity and Transparency (REMIT). The participation was the most intensive in the group, which is engaged in providing a platform for the registration of market participants according to REMIT. The Energy Agency was also implementing the necessary development activities (planning and computerization of internal processes) for establishing the registration of market participants in accordance with REMIT, which is the Energy Agency's new task.

In electricity area, an analysis of the regulatory framework for 2012 was carried out, and the Energy Agency monitored the implementation of the current regulatory framework for 2013. The study Cost-benefit analysis of advanced metering in Slovenia was performed, and in the area of quality of supply the Energy Agency evaluated the effects of the methodology.

With their development, smart grids and renewable sources will in the future impact the regulatory activities. Therefore, the Energy Agency also in 2013 continued to work in accordance with adopted policy to actively regulate the energy activities and networks of the future (the so-called AREDOP), which purpose is prompt and timely deployment of appropriate solutions in the regulatory practice, and thereby to improve regulation. In line with this, the Energy Agency continued to develop the methodology for estimating the value of the activation of the investments into distribution and transmission networks, completed the consultation process on electro-mobility and carried out a consultation process on exchange of data related to the realization of electricity produced from RES and CHP connected to the distribution network.

In the area of natural gas, the new regulatory framework for the transmission network for the period from 1 January 2014 and 31 December 2016 was confirmed, and approval to the transmission network development plan 2014-2023 was issued. For the functioning of the natural gas market was important the implementation of a single bill. The Energy Agency also carried out the necessary activities related to the security of gas supply.

Energy and persistence conquer all things.

Benjamin Franklin
(scientists and inventor, 1706–1790)

Electricty

3.1 General information

In 2013, the electricity consumption in Slovenia amounted to 12,816 GWh (excluding the losses in the distribution and transmission network). In comparison with 2012, the consumption increased by 185 GWh, or 1.5%. The customers connected to the transmission networks used 2006 GWh of electricity, or one percent more than the previous year. The consumption of the customers connected to the distribution network remained at the same level from the year before and amounted to 10,418 GWh. The hydroelectric pumped-storage power plant Avče (hereinafter referred to as PSPP Avče) used 392 GWh for accumulation of water, which was 56% more than in 2012. The electricity losses in the transmission and distribution networks amounted to 849 GWh, or 5.7% of all transmitted and distributed electricity, including transit, export and import of electricity.

In 2013, a total of 14,954 GWh of electricity was generated in Slovenia, which was 410 GWh more than in 2012. The hydroelectric power plants connected to the transmission network generated 4529 GWh of electricity, which was 761 GWh more than the year before. The thermoelectric power plants generated 4440 GWh of electricity, or 251 GWh less than in 2012. The Krško Nuclear Power Plant generated 5023 GWh of electricity, which was 209 GWh less than in the previous year. Production of electricity of small producers (with production units less than 10 MW) connected to the distribution network, was, compared with the production in 2012, higher and amounted to 962 GWh. In 2013, the domestic demand was not completely covered by the production sources in the Republic of Slovenia, including losses in the network, and taking into account the 50-percent share of installed capacity of the Krško Nuclear Power Plant, which belongs to Slovenia. The Slovenian consumption was covered by the domestic source in total of 91%. Through the transmission and the distribution networks 8821 GWh of electricity was exported, and imported 7521 GWh of electricity.*

The share of hydroelectric power plants and other production facilities on renewable energy sources (hereinafter referred to as RES) varies from year to year according to hydrological conditions the extent of investments in new facilities using RES. In 2013, this share amounted to 37% of the whole production. The power plants using fossil fuels contributed about 30% of total production and Krško Nuclear Power Plant 33%.

The highest hourly load was noted in February; it amounted to 1944 MW, which was 57 MW less than in 2012.

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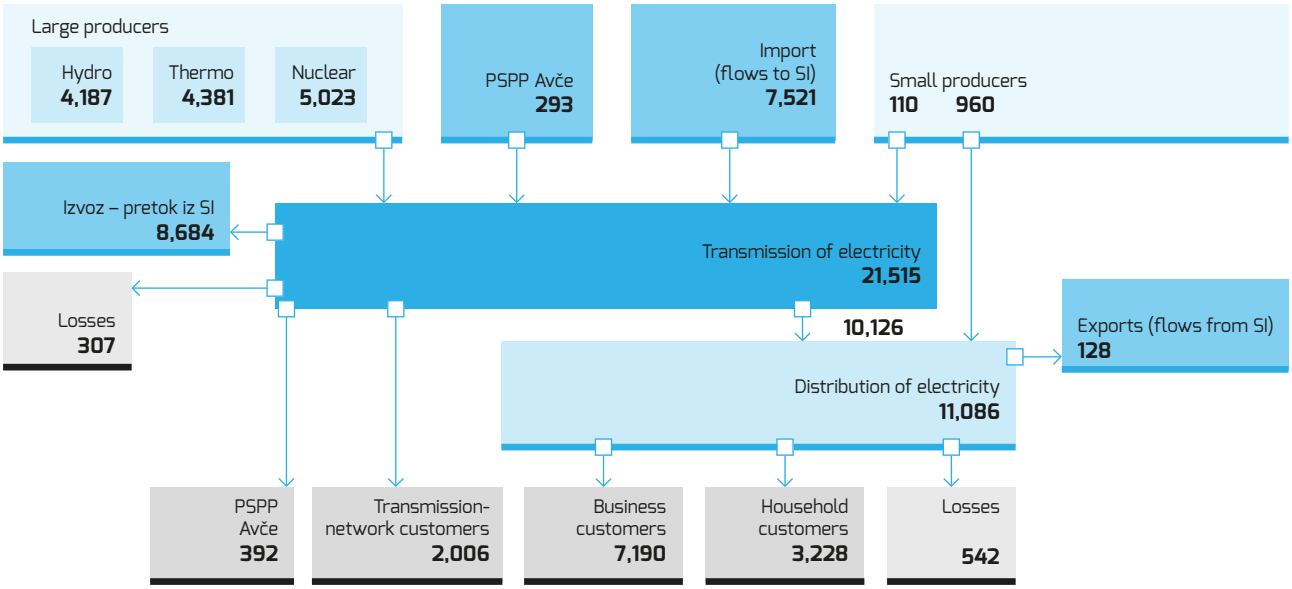
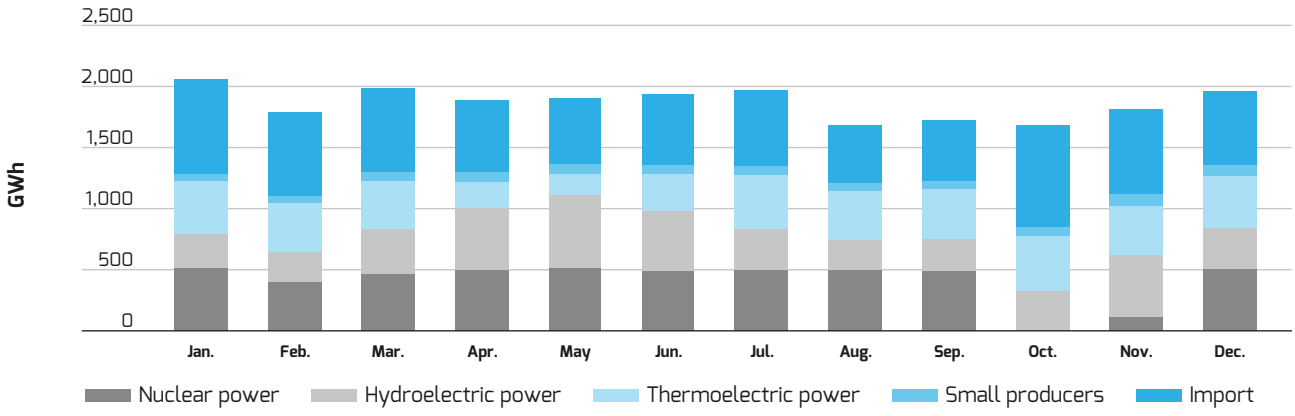
* Amounts are taken from balance sheets of the transmission and distribution networks operators.

Figure 1: Balance of electricity production and consumption in 2013 in GWh



Source: Energy Agency

Figure 2: Structure of monthly electricity production and import



Source: Energy Agency

Table 1: Electricity production and import in GWh

	2012	2013	Index 13/12
Hydropower plants	3,768	4,529	120
Thermoelectric power plants	4,691	4,440	95
Nuclear power plant	5,232	5,023	96
Small producers *	853	962	113
Total production in Slovenia	14,544	14,954	103
Import	7,452	7,521	101
Total	**21,996**	**22,475**	**102**

*Installed capacity of production unit is up to 10 MW, including the facilities installed at consumers.

Source: Energy Agency

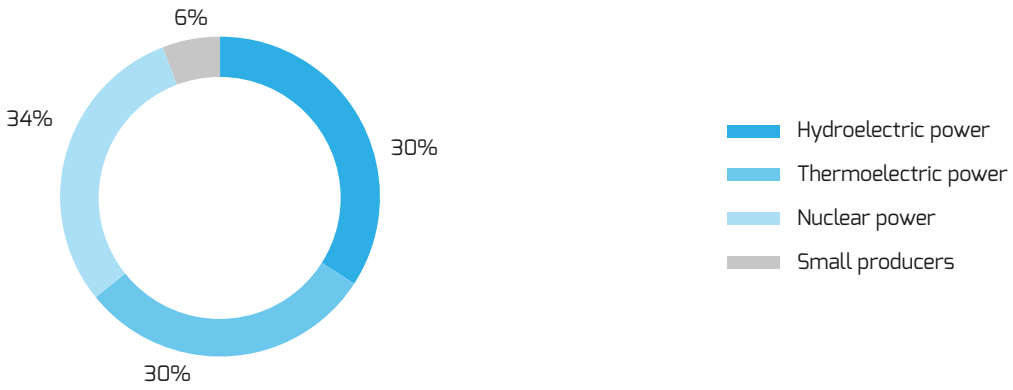
The data about the production (Table 1) covers the whole production of the nuclear power plant, also the part that belongs to the Republic of Croatia and is included in the data on export or energy flow from Slovenia.

Table 2: Electricity consumption and export for 2012 and 2013 in GWh

	2012	2013	Index 13/12
Business consumers on the transmission network	1,990	2,006	101
Business consumers on the distribution network	7,211	7,190	100
Household consumers	3,179	3,228	102
PSPP Avče consumption	251	392	156
Network losses	875	849	97
Total consumption	13,506	13,665	101
Export	8,491	8,812	104
Total	**21,997**	**22,477**	**102**

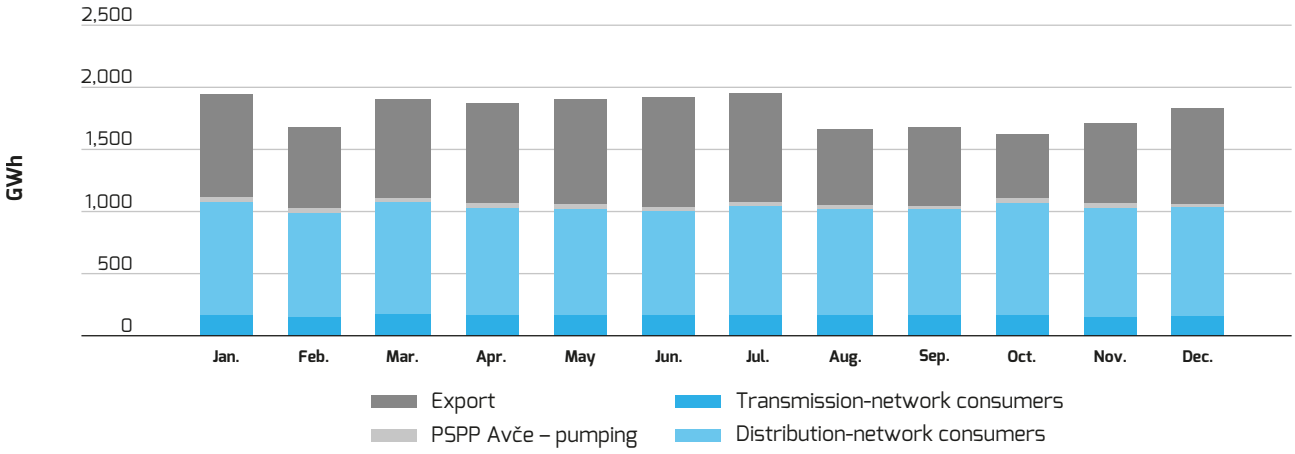
Source: Energy Agency

Figure 3: Structure of the production sources for electricity in Slovenia in 2013



Source: Energy Agency

Figure 4: Fluctuations in electricity consumption in 2013



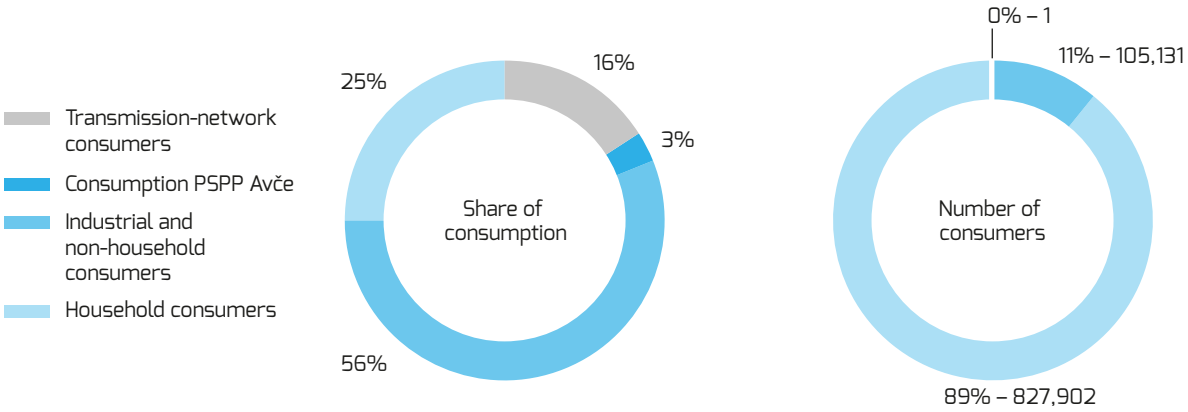
Source: Energy Agency

Table 3: The share of consumption and the number of consumers by the type of consumption

	Number	Consumption GWh
Consumers on the transmission network		
PSPP Avče consumption	1	392
Business consumers on the distribution network	105,131	7,190
Household consumers	827,902	3,229
All customers	**933,041**	**12,816**

Sources: Energy Agency, system operators

Figure 5: Shares of electricity consumption by consumption type



Sources: Energy Agency, system operators

At the end of 2013, a total of 933,041 electricity consumers were connected to the electricity network in Slovenia. In comparison with 2012, the number of consumers increased by 2800. Shares of electricity consumption by consumption type remained the same as in 2012, except that in 2013 consumption of PSPP Avče slightly increased.

3.2 The regulation and regulated activities

3.2.1 General information

Regulation is a process in which regulatory institutions by establishing the rules for determining the price cap or revenues and determination of eligibility of costs and revenues influence on regulated companies in order to meet business, technical and other objectives within the given period.

The regulated activities are the transmission and distribution of electricity which, at the introduction of market rules in the power sector, remain a natural monopoly.

The activities of electricity transmission and distribution are mandatory national public services carried out by the electricity system operators. The mode of carrying out a public service is determined with an ordinance issued by the government.

The company ELES, d.o.o., provides the service of general economic interest – electricity TSO as its single service, with its main office at Hajdrihova 2, Ljubljana (www.eles.si) – hereinafter referred to as ELES.

SODO, d.o.o., provides the service of general economic interest – electricity DSO - on the basis of a concession, with its main office at Minařikovi ulica 5, Maribor, (www.sodo.si) - hereinafter referred to as SODO.

The transmission and distribution system operators are 100-percent owned by the state.

3.2.2 The unbundling of services

Legal entities that carry out more than one energy-related activity in the area of supply with electricity, and in addition to an activity in the area of supply with electricity, also another activity (either another energy-related activity or market-based activity) have to provide for, in accordance with Energy Act (hereinafter referred to as EA), separate accounts for each energy-related activity in line with Slovenian Accounting Standards.

The activities of services of general economic interest – electricity TSO (ELES) and the electricity DSO (SODO) in Slovenia are carried out in separate legal entities, as their only activities; for this reason they do not keep separate accounts.

On the basis of the relevant contracts the owners of the electricity-distribution infrastructure prepared separate accounts for the activities that are carried out for SODO.

In 2013, the process of certification of the transmission system operator laid down by Directive 2009/72/(EC) of the European Parliament and the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC has not yet been yet transposed into the current Energy Act.

3.2.3 Technical functioning

3.2.3.1 The provision of ancillary services

Ancillary services are the services provided by a system operator to safeguard the normal operation of the network. The ancillary services relating to the entire Slovenian electricity system are provided by electricity TSO - ELES, while the electricity DSO also provides these services on individual parts of the distribution network. In line with the System Operation Instructions for the Electricity Transmission Network (the Official Gazette of the Republic of Slovenia, No. 71/12), ELES, in order to ensure the safe operation of the electricity system, uses the following ancillary services:

- the control of frequency and power (primary, secondary, and tertiary control),
- the voltage control,
- the covering of the imbalances in the regulatory area,
- the provision of a black start (system restart),
- the covering of the technical losses in the transmission network,
- the congestion relief.

For 2013, ELES planned the next scope of the ancillary services:

- the reserve for the secondary control of frequency and power: ± 80 MW
- the reserve for the secondary control of frequency and power: 348 MW

ELES had chosen the providers of ancillary service for 2013 already in 2011, together for 2012 and 2013. Ancillary services providers for tertiary control of frequency and power were chosen at the auction, providers of other ancillary services were selected through the direct negotiations with potential bidders.

For the selection of provider of tertiary reserve at the auction, ELES foresaw three. products. Based on statistical analysis of the engagement of reserve for tertiary control in previous years the system operator established that only about 10% of tertiary activations require engagement of total power of more than 130 MW. According to the previous analysed period ELES had never used a full range of tertiary reserve. Based on these facts, three products were created, which differed with regard to the quality parameters and the source of the reserve. Characteristics of individual products of tertiary reserve are shown in Table 4.

Table 4: Required product quality of tertiary reserve in 2012 and 2013

	Product A	Product B	Product C
Quantity (MW)	134	66	148
Source of the reserve	Slovenia	ENTSO-E	ENTSO-E
Activation time	≤ 15 min	≤ 15 min	≤ 15 min
Time to announce changes of activation	≤ 15 min	≤ 60 min	≤ 120 min
Number of activations in year	≥ 50	≥ 25	≥ 15
Time between two activations	= 0 h	≤ 12 h	≤ 24 h
Duration of one activation	≥ 16 h	≥ 16 h	≥ 16 h

Source: ELES

For leasing products for tertiary reserve for 2012 and 2013, ELES on 5 July 2011 carried out an auction. At this auction the bidders offered different prices for leasing and energy for each production unit, with which they took part at the auction. The final results are shown in the Table 5.

Table 5: Auction results for the lease of tertiary reserve for 2013

Product	Selected bidder	Leased capacity (MW)	Lease price (EUR/MW)	Energy price (EUR/MWh)
Product A				
	TE-TOL	10	50,000.00	63.00
	HSE	29	26,500.00	270.00
	HSE	29	27,500.00	270.00
	HSE	42	48,860.00	220.00
	HSE	24	80,970.00	150.00
Product B				
	Energy Financing Team AG	52	16,800.00	210.00
	HSE	14	80,970.00	150.00
Product C				
	Energy Financing Team AG	148	13,200.00	160.00

Source: ELES

The providers of other ancillary services were chosen by Eles on the basis of direct negotiations with potential providers of these services. Due to the nature of remaining ancillary services only providers with production resources located within Slovenia could be selected.

3.2.3.2 The balancing

In accordance with Article 22a of the EA in force in 2013, the electricity TSO - ELES is responsible for balancing the imbalances in the Slovenian network. Within the balance scheme, stipulated by the Rules Regarding the Operation of the Electricity Market (the Official Gazette of the Republic of Slovenia, Nos 98/09, 97/11), the balance-responsible parties are obliged to maintain the operation schedules of their balance groups within the frameworks of the forecasted values. The imbalances of individual balance groups are often mutually eliminated, as one balance group's imbalance in the positive category, together with another group's imbalance in the negative category of the same value, does not create an imbalance of the entire electricity system. However, when an imbalance of the entire system takes place, ELES is responsible for its balancing. All energy for balancing ELES in normal circumstances purchases in the balancing electricity market. In exceptional circumstances, the missing energy can be obtained by the engagement of the provisions of leased ancillary services.

The balancing market is organized by the company Borzen, the electricity-market operator, d.o.o. (hereinafter referred to as Borzen). Trading on this market is carried out as continues trading, which means that the transaction is concluded whenever adequate supply and demand meet. Trading on the balancing market is implemented through a trading platform for collecting purchase and sale bids, which is open for all members of the balancing scheme, e.g. the balance responsible parties and subgroups. ELES buys and sells electricity intended for the settlement imbalances in the Slovenian electricity system, except energy for providing primary and secondary control, and for the engagement of the tertiary reserve that cannot be done through the trading platform. Trading on the balancing market is carried out 24 hours a day, seven days a week, and at most one day in advance. Trading with Hourly, 15 minutes, Base and Peak products is possible. In 2013, for a total of 66,528 MWh of electricity were sold in the balancing market.

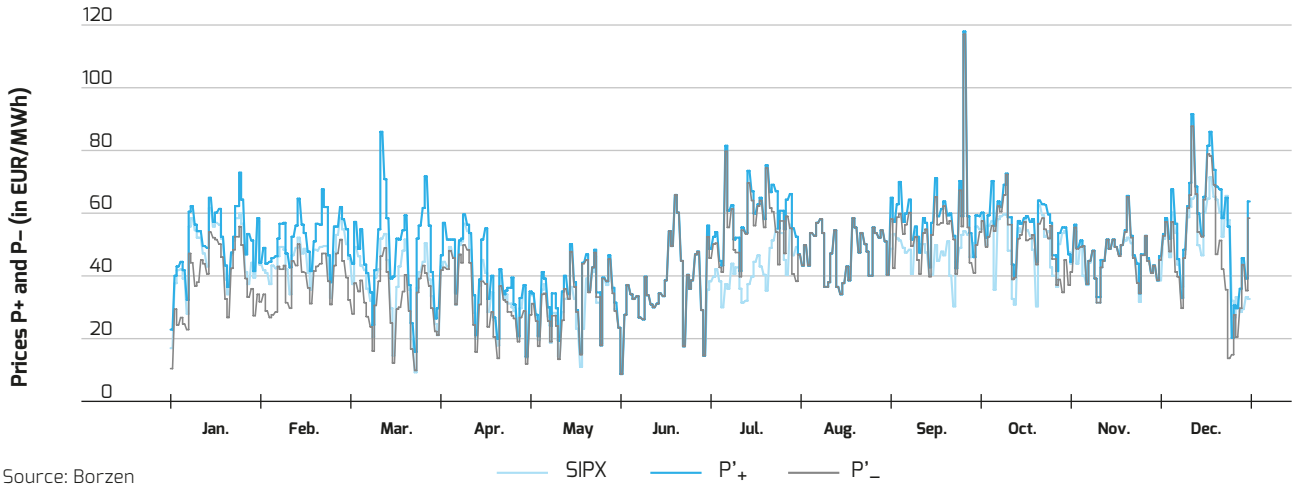
Borzen is responsible for imbalance settlement. The imbalance settlement is carried out on the basis of the provisions from the Rules of the Operation of the Electricity Market. First, the market operator determines the total amount of imbalances for each balance group and for each accounting interval (1 hour). Later it prepares financial value of these imbalances, taking into account the actual costs for imbalances incurred by ELES, and hourly index of electricity on the Slovenian power exchange. In that way, basic prices of imbalances, C_+ and C_- are determined. C_+ refers to positive deviations (realisation of the balance group is lower than planned value), and C_- refers to negative imbalances. Within imbalance settlement for each balance group it has to be examined whether the imbalances were inside or outside of the tolerance band. If the balance group was during the accounting interval outside the tolerance band, the penalization is accounted. The market operator each month does the correction of the basic prices of imbalances in such a way that the revenues and expenditures from the balance sheets of balance groups, cover all the electricity TSO incurred costs for balancing. Calculated price correction is made in both directions – for surpluses and deficits. Correction is made in as many accounting intervals as necessary to cover the imbalance costs in accounting period. In this way the corrected imbalance prices, C'_+ and C'_-, are achieved. Calculation is made without taking into account penalties for deviations and planned deviations (deviations of the balance groups without delivery points). Calculation of penalties for deviations outside the tolerance band is carried out by the market organizer after price correction, which means that the accounting surpluses arise only from penalties for deviations imposed to the balancing groups.

On the basis of the settlement account for all accounting periods and correction of prices C_+ and C_-, the market organizer every month carries out a financial settlement of imbalances. Financial settlements are prepared for balance groups with relevant delivery points or production-delivery points. For groups that do not have such points, i.e. groups of traders who do not supply electricity to the end customers in Slovenia, the financial settlements are made only when the responsible parties announced planned imbalances.

On 14 May 2013, an Imbalance Netting Cooperation (INC) was put into operation between the Slovenian and Austrian electricity TSOs. Within INC, the automatic activation of secondary control energy is optimized through the netting of the balancing demand from the networks, striving for the best possible avoidance of counter activation. INC had a positive effect on a total imbalances costs, since the price for balancing energy from INC was very favourable.

C'_+ and C'_-, and price index in the Slovenian electricity exchange SIPX in 2013.

Figure 6: C'_+ in C'_- and index SIPX in 2013



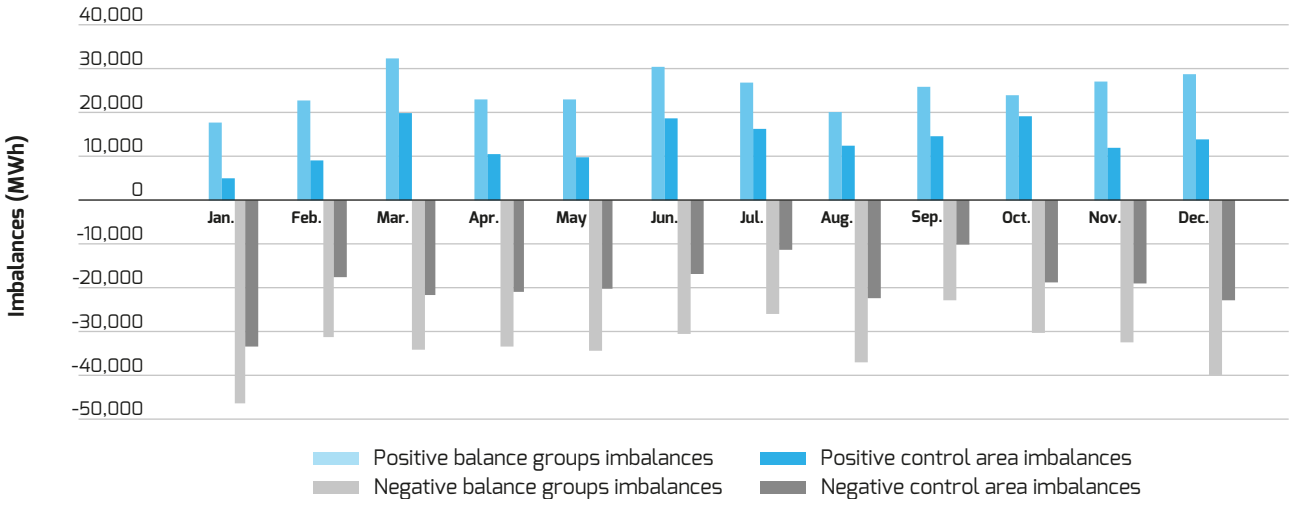
Source: Borzen

From January to December 2013 the average value of derived price for positive imbalances C'_+ accounted to 49.13 EUR/MWh, and for negative imbalances C'_- 44.35 EUR/MWh. The maximum value of C_+ in this period amounted to 596.24 EUR/MWh, and the lowest – 58,23 EUR/MWh. The highest price C_+ occurred on 13 March in 20th hour block, and the lowest on 17 September in 2nd hour. The highest price of C_- amounted to 259.52 EUR/MWh, and occurred on 26 September in 5th hour, and the lowest was -58.23 EUR/MWh, again on 17 September in 2nd hour. In comparison with the previous year, a an obvious decrease in the average price for positive imbalances C'_+ can be noticed, and which amounted to 60.41 EUR/MWh. The main reason for this decrease is definitely the implementation of INC.

According to the amended rules for the calculation basic prices of imbalances C_+ and C_-, and consequently for the calculation of derived prices of imbalances, C'_+ and C'_-, Slovenian Stock Exchange Index SIPX is used. The average value of SIPX in 2013 amounted to 43.18 EUR/MWh. The maximum value of SIPX occurred on 4 October in 20th hour, 123.14 EUR/MWh, and the lowest value of SIPX was 0.00 EUR/MWh, appearing during more intervals during the whole year. The value of C'_+ was on average for 5.95 EUR higher than the SIPX index value, while the value of C'_- on average by 0.31 EUR/MWh lower than the SIPX index value.

Figure 7 shows the total of positive and negative imbalances of all balance groups in Slovenia for 2013, and all imbalances of the Slovenian network.

Figure 7: All imbalances of the Slovenian network in 2013



Sources: Borzen, ELES

Due to netting, the imbalances of the whole system are lower than the sum of imbalances of all the balance groups. Nevertheless, imbalances of the regulated area follow the imbalances of all the balance groups by size, therefore, the maximum and minimum values for both categories detected in the same months. Thus, the maximum positive imbalances were observed in March, and the maximum negative in January. The total annual positive value of imbalances of the regulated area amounted to 161,056 MWh, and negative 234,919 MWh. At the same time, the total annual positive imbalances of all balance groups amounted to 301,777 MWh, and negative 397,808 MWh.

The year 2013 was quite dynamic with respect to new inclusions and exclusions of the the Slovenian Balance Scheme members. There were 12 new members registered, and 7 members left the scheme. At the beginning of the year, the Balance Scheme had 49 balance groups and 17 subgroups, and at the end of the year 54 balance groups and 20 subgroups.

3.2.3.3 Safety and Reliability Standards and Quality of Service

In International Electrotehnical Vocabulary IEC 60050-617– Part 617: Organization/Market of Electricity is used the term "Quality of Electricity Supply", which define the supply continuity, the voltage quality and the commercial quality.

At their work, the system operators and electricity distribution companies use the Slovenian standards, or technical report, which are accepted in the Standardization system in Slovenia:

- SIST EN 50160:2011, which replaces SIST EN 50160:2008: Voltage characteristics of electricity supplied by public distribution networks
- SIST-TP IEC/TR3 61000-3-6:2004: Electromagnetic compatibility (EMC) - Part 3: Limits - Section 6: Assessment of emission limits for distorting loads in MV, HV and EHV power systems - Basic EMC publication
- SIST-TP IEC/TR3 61000-3-7:2004: Electromagnetic compatibility (EMC) - Part 3: Limits - Section 7: Assessment of emission limits for fluctuating loads in MV and HV power systems - Basic EMC publication

In order to reduce costs of the system operators the quality of electricity supply can also be reduced, especially if the companies are not regulated on the basis of the achieved level of quality supply. The quality of electricity supply is supervised by the Energy Agency on the basis of minimum quality standards. The term supply quality covers the following:

- continuity of supply
- commercial quality
- voltage quality

3.2.3.3.1 Continuity of supply

The data on the continuity of supply were collected by the uniform methodology, in accordance with the Act Concerning the Submission of Data about the Quality of the Electricity Supply. Data on supply continuity are sent by using Web services.

The SAIDI indicators for unplanned interruptions caused internally from 2011-2013, sent by the electricity distribution companies, are shown in Table 6.

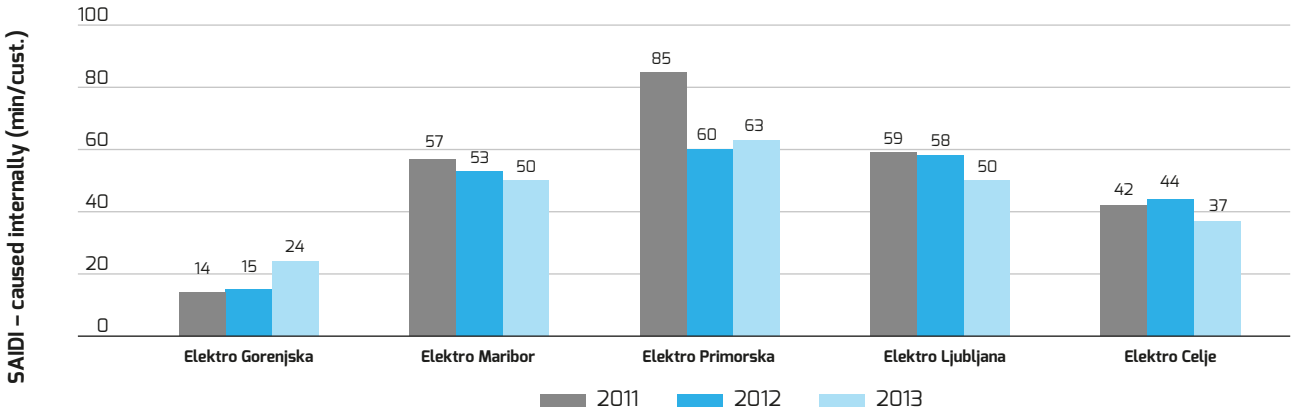
Table 6: SAIDI by year- from 2010 to 2013 unplanned interruption caused internally

	SAIDI – Unplanned, long interruptions (min/cust.) (internal)		
Company / year	**2011**	**2012**	**2013**
Elektro Gorenjska	14	15	24
Elektro Maribor	57	53	50
Elektro Primorska	85	60	63
Elektro Ljubljana	59	58	50
Elektro Celje	42	44	37

Sources: Companies' data

Figure 8 shows the SAIDI between 2011 and 2013 for unplanned long-term interruptions (caused internally). According to the achieved level of indicator SAIDI in 2012, it can be noticed that SAIDI in 2013 did not significantly changed. During the years the lower values of SAIDI in the area of Elektro Gorenjska are evident, mainly because of the specific environmental parameters and the structure of the network system, where cable networks prevail.

Figure 8: SAIDI from 2010 to 2013 for unplanned interruption caused internally



Sources: Companies' data

On the basis of the SAIDI and SAIFI for 2013 relating to individual network owners, the Energy Agency calculated the aggregate value of SAIDI and SAIFI indicators on the basis the Energy Agency calculated the aggregate value of SAIDI and SAIFI indicators on the basis of the number of all customers in Slovenia. In tables 7 and 8 the SAIDI and SAIFI indicators that relates to all interruptions, which namely affect consumers, are shown. At calculating these indicators, as, in addition to internal interruptions, the external interruptions due to force-majeure are also covered; planned interruptions are shown separately.

Table 7: SAIDI and SAIFI at the national level for the period 2011–2013 (unplanned)

Indicator / causes	Unplanned interruptions					
	2011		2012		2013	
	Internal causes	All causes	Internal causes	All causes	Internal causes	All causes
SAIFI – national level [interr./cons.]	1.33	1.81	1.40	2.99	1.14	2.20
SAIDI – national level [min/cons.]	55	76	50	169	47	109

Sources: Companies' data

Table 8: Indicators SAIDI in SAIFI at the national level for the period 2010–2013 (planned interruptions and all interruptions)

Indicator	Planned interruptions			All interruptions		
	2011	2012	2013	2011	2012	2013
SAIFI – national level [interr./cons.]	0.98	0.88	0.89	2.79	3.86	3.08
SAIDI – national level [min/cons.]	127	117	115	203	286	224

Sources: Companies' data

3.2.3.3.2 Commercial quality

In 2013, the monitoring of commercial quality indicators continued. The collected parameters are merged into the following groups:

1. Connection
2. Costumer care
3. Technical service
4. Metering and Billing

Table 9 shows average values of some commercial quality indicators relating to connecting to a network and technical services of fuse or electricity meter.

Table 9: Average values of some commercial quality indicators

Commercial Quality Indicator	Elektro Gorenjska	Elektro Maribor	Elektro Primorska	Elektro Ljubljana	Elektro Celje
CONNECTION					
Average time needed for issuing the approval for connection (days)	15.70	10.60	21.80	17.00	5.88
Average time needed for issuing the contract for connection to the LV network (days)	11.60	6.80	3.16	9.00	2.86
Average time needed for activating the connection to the network (days)	5.90	4.70	3.21	3.40	2.34
TECHNICAL SERVICES – ELIMINATION OF FAILURES					
Average time needed to start of restoration of supply following failure of fuse (06.00 – 22.00) (h)	1.30	1.22	2.10	0.99	1.35
Average time needed to start of restoration of supply following failure of fuse (22.00 – 06.00) (h)	0.20	–	2.45	0.97	1.51
Average time needed to repair meter failure (days)	7.74	2.63	7.00	2.95	5.27

Sources: Companies' data

In 2012, the Energy Agency introduced a unified procedure for collecting complaints relating to commercial quality. Classification of complaints is consistent with ERGEG recommendations, Ref, E10- CEM-33-05 (June 2010). Data on commercial complaints are summarized in Table 10.

Table 10: Number and shares of justifiable complaints relating to commercial quality for 2013

Reason for complaint	Number of all complaints	Number of justifiable complaints	Share of justifiable complaints (%)
Activation of connection to the network	0	0	
Incorrect disconnections due to mistakes of maintenance personnel	0	0	
Restoration of supply following failure of fuse	0	0	
Answering to the voltage complaint	118	51	43
Elimination of voltage variation	4	2	50
Maximum permitted duration and number of unplanned long-term interruptions (for end-users to MV)	0	0	
Maximum permitted duration of individual unplanned interruption	0	0	
Repairing meter failure	317	161	51
Yearly meter readings by the designating company	8	4	50
Answers to written questions, complaints or users enquiries	94	28	30
Restoration of powers supply following disconnection due to non-payment	0	0	
Cost estimation for simple works	0	0	
Issuing of the contract for connection to the LV network	1	1	100
Issuing of connection approval	17	5	29
Not coming or be late for pre-arranged visit	2	1	50
Time for giving information in advance of a planned interruption	5	3	60

Sources: Companies' data

Data on complaints show that customers mostly complained about the meter failure.

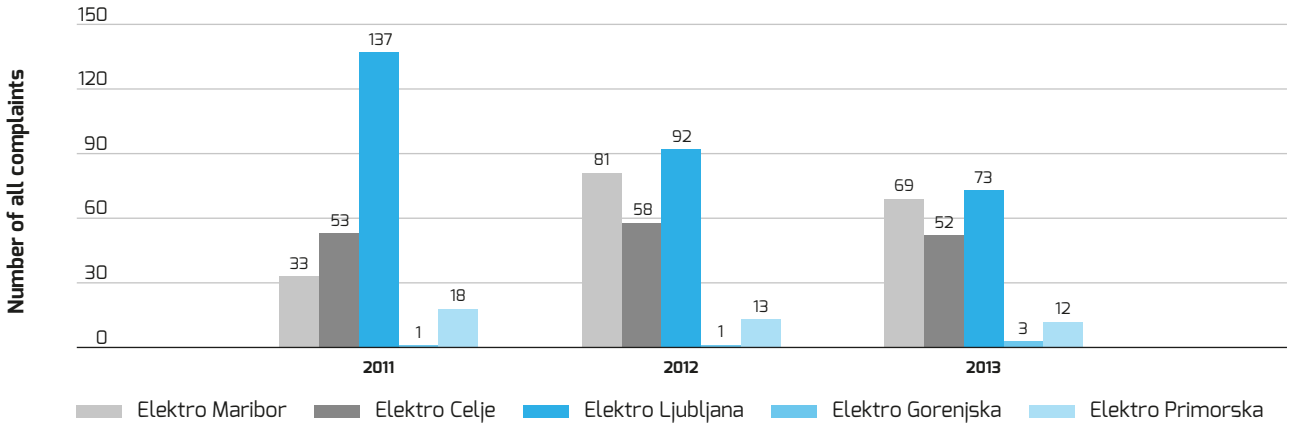
The level of commercial quality is determined by the system standards and the guaranteed standards for the commercial quality. If the guaranteed standards for the commercial quality are not met, an individual service provider may have to face financial consequences, i.e., the compensations paid out to the customer concerned. A customer can expect a certain quality on the basis of the system standards, as they indicate the average level of the service quality in the system, or the share of the customers provided with a particular service.

3.2.3.3.3 Voltage quality

In line with the legislation, the system operators have to continually monitor the voltage quality at the border between the transmission and distribution networks, and at the points of change of title of large producers and large customers. Occasional monitoring is done on the basis of a schedule set in advance. When dealing with a complaint, the voltage quality is monitored for at least a week. The voltage quality is monitored also in the procedure of issuing the connection approval. By that, the issuer can examine the condition of the network.

The owners of the distribution networks collect the data relating to the voltage quality at the metering points for continual or periodic monitoring in accordance with standard SIST EN 50160. The number of complaints is different from year to year (Figure 9 and Table 11), but it can be estimated that the number of complaints decreased in comparison with the previous year.

Figure 9: Number of all complaints relating to voltage quality for 2011-2013 by company



Sources: Companies' data

Table 11: Number and shares of justifiable complaints to voltage quality for 2011–2013

	2011			2012			2013		
Company	**All complaints**	**Number of justifiable complaints**	**Share of justifiable complaints**	**All complaints**	**Number of justifiable complaints**	**Share of justifiable complaints**	**All complaints**	**Number of justifiable complaints**	**Share of justifiable complaints**
Elektro Maribor	33	25	75.8%	81	57	70.4%	69	48	69.6%
Elektro Celje	53	47	88.7%	58	37	63.8%	52	39	75.0%
Elektro Ljubljana	137	111	81.0%	92	47	51.1%	73	30	41.1%
Elektro Gorenjska	1	0	0.0%	1	1	100.0%	3	3	100.0%
Elektro Primorska	18	10	55.6%	13	10	76.9%	12	8	66.7%
Total	**242**	**193**	**79.8%**	**245**	**152**	**62.0%**	**209**	**128**	**61.2%**

Sources: Companies' data

3.2.3.3.4 The voltage quality of the transmission network

In accordance with the provisions of the General conditions for the supply and consumption of electricity (the Official Gazette of the Republic of Slovenia, No. 117/02), the TSO (ELES) is obliged to carry out all the tasks necessary for safeguarding the service quality of the transmission system operator.

In 2013, the TSO carried out permanent monitoring of voltage quality of the high-voltage network in line with the requirements of the Standard SIST EN 50160 in 188 connection points (between distribution, production and direct consumers). The monitoring of voltage quality will continue at

the remaining connection points between the transmission network and its users, where permanent monitoring is not yet established, as well as at the connection points with transmission networks of Croatia, Austria and Italy. In addition to the indicators used for the control of the supply continuity on the distribution network (SAIDI, SAIFI, MAIFI), other indicators based on the amount of unsupplied energy are also monitored on the transmission network (ESN).

On the basis of the data obtained with the continual monitoring of voltage quality, it was established that the parameters recorded at the above connection points are, on average, consistent with the requirements of the SIST EN 50160 standard. In some points some voltage unbalances and flickers were detected also in 2013, namely size of supply voltage, flicker, frequency and voltage balance. Flicker values, which were not compliant with the standard, appeared in 143 metering points, which is on average 14.2 non-compliant weeks for individual metering point.

Excessive flicker values appeared in three areas around large customers using facilities, which overtake irregular inductive current resulting in a large voltage fluctuation on the transmission network. The most extensive flicker impact was felt throughout the Gorenjska Region and in some Ljubljana nodes. Slightly smaller impact was perceived in Koroška region. The third area with minimal flicker impact was Celje region.

3.2.3.4 The long-term development of the electricity network

Every two years the transmission and distribution system operators prepare development plans for a period of ten years; plans are evaluated and approved by the ministry responsible for energy. These plans consider the strategic national energy policies, and are harmonised with each other. When preparing these plans the system operators use a uniform methodology considering long-term consumption expectations, the analyses of the expected operational conditions, the level of supply reliability, and economic analyses. They also consider possible locations for new large production sources. In the development plans physical and financial extent of investments in new facilities are determined, as well as investments in renovation of existing facilities of electricity infrastructure on transmission and distribution network.

Last development plans of both system operators were prepared for the period 2013–2022. The expected investments in the electricity infrastructure for the transmission and distribution amount to € 2207 million, of which € 579 million are allocated for the transmission network, and € 1628 million are allocated for the distribution network.

In comparison with the development plans for 2011–2020, some major changes occurred, as well as delays. The investments of the electricity DSO will reach their peak in 2021 instead of 2015. On the transmission network, the scale of investments will begin to decrease after 2016.

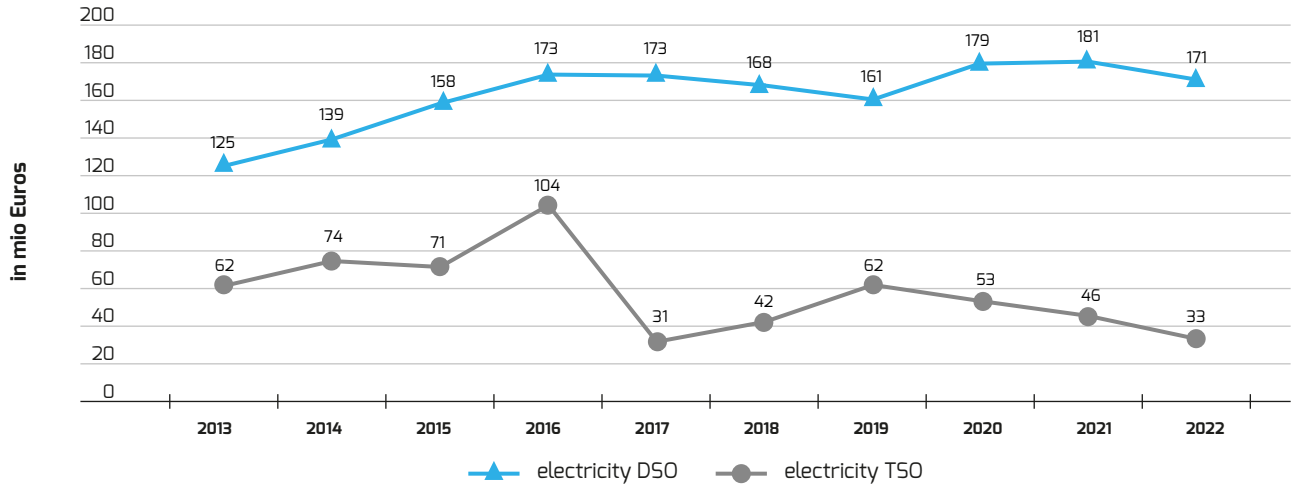
Among the most important development planning in the next decade, the gas DSO lays special emphasis on investing in the systems for meshing of MV network, automation and control of operation of the network, neutral point connection and cabling of the network. Cabling of the MV network became even more important after the catastrophic conditions caused by sleet. The impact of environment on cables is, comparing to overhead lines, smaller. In that way the quality of electricity supply improves, and spatial planning is much easier.

The gas DSO will improve the quality supply and reduce number of short-term and long-term interruptions with investments in automation and control of operation of the network, as well as with smart grids and smart metering.

The concept of smart grids will allow flexibility (to meet customers' needs by responding to their requirements), access (connection to the network for all users), security of electricity supply (by providing and improving reliability and quality), and efficiency.

Smart grids include also investments in advanced metering systems. Pilot projects show that advanced metering systems offer a lot more than just measuring and transferring data, and because of lower operating costs it would be rational to use such systems for all consumers.

Figure 10: Planned investments of electricity TSO and electricity DSO for 2013–2022



Sources: system operators

In development plans up to 2022 the transmission system operator takes into consideration the basic guidelines covering the construction of 400 kV inner-loop network, new connections to the neighbouring network systems, the control of unwanted energy flows and adequate voltage conditions, as well as a reliable and safe operation in accordance with the recommendation and set criteria by ENTSO-E.

In the period up to 2020 major investments planned are 2 x 400 kV Beričevo–Krško transmission lines, transition of transmission lines Divača–Kleče–Podlog–Cirkovce from 220 kV to 400 kV and construction of 2 x 110 kV transmission line Beričevo–Trbovlje. International lines with Italy are also planned, (2 x 400 kV Okroglo–Videm (Udine)), and with Hungary (2 x 400 kV Cirkovce–Pince transmission lines). For all these investments, especially for the 400-kV lines, is typical that the period of construction extents with every ten-year development plan in particular due to the difficulties associated with the placing of the line facilities in the environment. Together with Cirkovce–Pince transmission line the new 400 kV DTS will be built in Cirkovce.

3.2.4 The network charges for the transmission and distribution networks

The Energy Agency determines the methodology for setting the network charge and the criteria for establishing eligible costs for electricity networks and the methodology for charging for the network charge. On the basis of the methodology for setting the network charge and the criteria for establishing eligible costs for electricity networks, the Energy Agency sets the network charges for the use of electricity networks, for the distribution networks, and for the ancillary services. On the basis of determined network charges and the methodology for charging for the network charge, the Energy Agency determines the tariffs for transmission and distribution networks, ancillary services, specialised ancillary services and for connected load.

3.2.4.1 Setting the network charge

The year 2013 was the first year of the fourth regulatory period, which will last from January 2013 to 31 December 2015. The regulation is carried out in line with Act Determining the Methodology for Charging for the Network Charge and the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for Electricity Networks (Official Gazette of RS, Nos 81/2012, 112/2013, 47/2013, 7/2014).

The methodology for setting the network charge is based on the method of regulated network charge, which is implemented in a way that by establishing network charge and other revenues and by taking into account surpluses of the previous years, the eligible costs and deficits from the previous regulatory years of the system operator are covered.

Before the start of the fourth regulatory period, the Energy Agency determined the system operators a regulatory framework. The regulatory framework is an estimation of eligible costs and resources for covering eligible costs and deficits or surpluses of the previous years of the regulatory period of the system operator.

The eligible costs of the system operator are:

- the costs of operation and network maintenance
- the costs for electricity losses in the network
- the costs of ancillary services
- depreciation costs
- regulated return on assets

Other sources to cover the eligible costs of the system operator apart from the network charge and surpluses from the previous years are:

- revenues relating to billings
- revenues from the telecommunication services
- revenues from compensations between transmission system operators
- revenues from congestions
- revenues from charging for the average costs for a connection and the network charge for connection load, free-of-charge received assets, co-investments and funds relating to revenues from congestions
- revaluated operating incomes related to claims due to bankruptcies and compulsory settlement
- other revenues arising from the provision of a regulated activity

Revenues associated with the average cost for making a connection and connection load, free-of-charge received assets, co-investments and funds relating to revenues from congestions are annually recognized in the amount of depreciation.

The regulated network charge is also incentive based. Incentives depend on achieving lower costs than eligible, the achieved level of the quality of supply, and investments in smart grids.

If the costs of the system operator are lower than actual eligible costs, it may keep the difference. The incentives for achieved level of the quality of supply are determined according to the deviations of the achieved level of the continuity of supply from the reference level and it results in reducing or increasing the eligible costs.

If the system operator realizes investments in smart grids set by the methodology, a single grant (stimulation) in amount of 2% of the current value of the asset is recognized.

After every regulatory year the system operator is obliged to determine the derogations from the regulatory framework, which are determined as the difference between planned and actual eligible costs of the system operator and difference between planned and actual financing sources for covering eligible costs. By the methodology of regulated network charge the system operator is obliged to consider the surplus of the network charge as dedicated revenue for covering deficit of the previous years or eligible costs of the following years. At the same time the system operator has the right to enforce the network charge deficit in establishing the network charge in coming years.

The Energy Agency monitors the implementation of the regulatory framework during the regulatory period by monitoring monthly realization of the network charge, analysis the specific eligibility criteria and reviews the calculated derogations from the regulatory framework.

The regulatory framework can be modified during the regulatory period, if the Energy Agency establishes that significant changes within the operation of the system operator occur. The Energy Agency shall issue a separate decision, if it concludes that derogations were not calculated in accordance with the methodology.

3.2.4.2 The charging for the network charge

To determine the charging for the network charge, the Energy Agency uses a non- transaction postage--stamp method, which means that, with respect to charging for the network charge, the tariffs and average costs for making a connection are uniform for the whole territory of Slovenia within the framework of individual customer groups. To divide the costs across different voltage levels the gross approach with respect to calculating the network charges for the transmission and distribution networks.

3.2.5 The business operation of the regulated companies

3.2.5.1 The business operation of the electricity TSO

According to unaudited financial statement ELES ended the financial year 2013 with a net profit of € 8.72 million, which was € 3.6 million, or 70.31% more than in 2012.

In 2013, the transmission system operator generated revenues from the network charge for the transmission network, the network charge for the ancillary services, and from other services.

Table 12: Transmission system operator's network charge

In million euros

	Regulatory Framework	Realization	Index
			Real./reg. framework
Network charge for the transmission network	65.75	62.51	95.07
Network charge for the ancillary services	35.72	35.29	98.80
Total network charge	**101.47**	**97.80**	**96.38**

Source: ELES

In 2013, ELES realized for 4.93% less profit from the network charge than expected by the Energy Agency in the regulatory framework. The revenues from ancillary services were realized for 1.2% less than expected by the regulatory period, which is shown in Table 12. In 2013, ELES realized also the network charge for connection load in the amount of € 0.52 million, which is a source for already implemented extent of the network and for planned development of it.

Within other revenues ELES realized the revenues from the auctions for allocating congested cross-border transmission capacities, and revenues from the ITC mechanism, amounted to € 52.34 million, which was 19.39% less than in 2012.

In 2013, in accordance with Article 46a of the EA, ELES in its income statement reduced or separated the part of the revenues from the auctions for allocating congested cross-border transmission capacities. ELES separated the part of revenues from the auctions for allocating congested cross-border transmission capacities that were allocated for the maintenance or increasing of interconnection capacities through the investments in the network in 2013 and in coming years.

ELES owns the transmission system network and provides the service general economic interest of the transmission system operator. In 2013, the total length of transmission lines was 2843 kilometres. At the end of 2013, ELES had 538 employees, 8 more than the year before, or 1.51%.

3.2.5.2 The business operation of the electricity DSO

SODO ended the financial year 2013 with a net profit of € 3.25 million (according to unaudited financial results), which was € 0.63 million more than in 2012. In 2013, the distribution system operator generated revenues from the network charge for the distribution network, the network charge for a connection load, and from other services.

In the regulatory framework for 2013 the Energy Agency planned € 262.11 million revenues from the network charge for the distribution network. Due to lower consumption than expected, the revenues amounted to € 255.25 million, which was 2.62% less than expected. At the end of 2013 the company had 33 employees, 4 more than in 2012.

SODO provides the service of general economic interest of the electricity DSO on the distribution network; the total length of distribution network was 64,984 kilometres, which also include street lighting. Of these, SODO owns 46 kilometres of the network, 914 kilometres are owned by the customers. The rest of the network is leased by SODO, the owners and lengths of leased network are listed below:

- 16,635 kilometres; Elektro Celje, company for electricity distribution, d.d., Vrunčeva 2a, 3000 Celje, **www.elektro-celje.si**,
- 5438 kilometres; Elektro Gorenjska, company for electricity distribution, d.d., Ulica Mirka Vadnova 3a, 4000 Kranj, **www.elektro-gorenjska.si**,
- 17,244 kilometres; Elektro Ljubljana, company for electricity distribution, d.d., Slovenska cesta 58, 1000 Ljubljana, **www.elektro-ljubljana.si**,
- 16,128 kilometres; Elektro Maribor, company for electricity distribution, d.d., Vetrinjska ulica 2, 2000 Maribor, **www.elektro-maribor.si** in
- 8,579 kilometres; Elektro Primorska, company for electricity distribution, d.d., Erjavčeva 22, 5000 Nova Gorica, **www.elektro-primorska.si**.

SODO has a signed Contract for Leasing the Infrastructure for Electricity Distribution and the Provision of the Service of the Distribution System Operation (hereinafter referred to as the contract) with the owners of the electricity-distribution infrastructure.

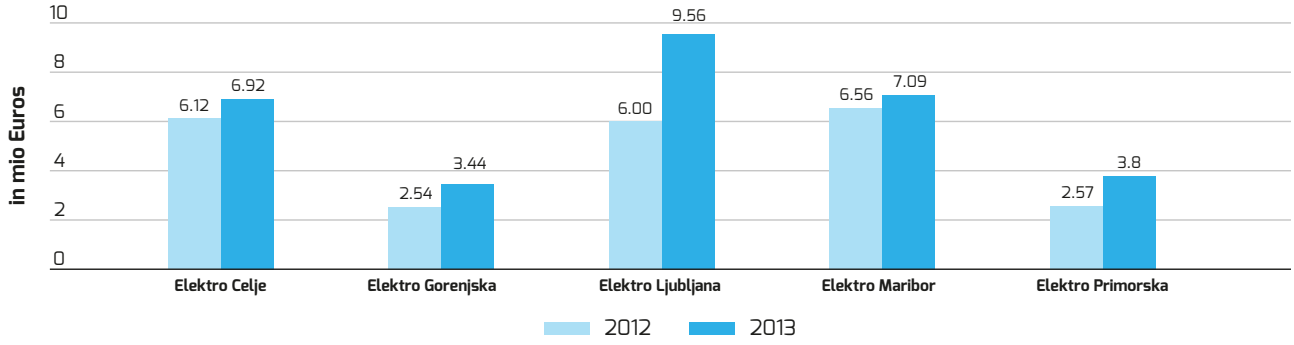
The contract regulates all the issues relating to the extent and purpose of using the electricity-distribution infrastructure: the leasing fee, the terms and conditions, the maintenance of the electricity-distribution infrastructure, and other issues associated with the concerned infrastructure and the provision of other services allowing the distribution system operator to efficiently carry out its tasks.

3.2.5.3 The business operation of the owners of the electricity distribution networks

In 2013, the owners of the electricity distribution infrastructure generated revenues from leasing out the distribution network to the system operator, providing the services for the distribution system operator and from other services in the market.

The owners of the distribution infrastructure in 2013 generated € 29.73 million of net profit (unaudited financial statements). With leasing of the distribution infrastructure and provision of services for the system operator (rent and services) they generated € 30.81 million of net profit, which was 29.56% more than in 2012. The financial performances of the companies for 2012 and 2013 are shown in Figure 11.

Figure 11: Profit from leasing and service activities for SODO in million euros



Sources: Companies' data, Energy Agency

At the end of 2013, the owners of the distribution infrastructure employed a total of 3003 employees, 10 less than the year before. Leasing and the services had 2432 employees, which was 0.33% decrease in comparison with the previous year.

3.2.5.4 Business operation of the market operator

The company Borzen, the electricity-market operator, d.o.o., is a company that is 100-percent owned by the Republic of Slovenia.

In line with the EA, Decree on the method for the implementation of public service obligation relating to the organization of the market in electricity, Act establishing the company Borzen, the electricity-market operator, d.o.o., and other relevant regulations, Borzen performs the public service of market operator, which includes activities of the Centre of Support (Centre for RES/CHP support), and in addition, it performs a commercial activity – the provision of services for the company BSP Regional Energy Exchange, d.o.o.

Energy Act determines the activity of the electricity market operator, and the Centre of Support as one service of general economic interest, but it also determines the separate management of accounts for the Centre for Support. For providing the separate management of accounts, the electricity market operator and the Centre for Support are treated as two separate financial entities. Borzen provides the separate accounts for each public service and separately for the market activity.

In 2013, the company as a whole generated € 3.49 million, which was 20% less than the year before. The expenditure amounted to € 2.48 million, almost the same as the year before. The net profit of the market operator was € 0.85 million, or 49% lower as in the previous year, on market activity € 0.01 million, and the Centre of Support had operating deficit of € 0.16 million. At the end of the year 2013 the company had 31 employees.

3.2.6 Cross-border transmission capacities

3.2.6.1 Access to the cross-border transmission capacities

The allocation and the use of the cross-border transmission capacities (hereinafter referred to as CBTCs) in the EU were in 2013 regulated by Regulation 714/2009, which was adopted within the 3rd Package. Under the provision of this regulation the system operators in individual countries are responsible in this area. With appropriately defined CBTCs and procedures for allocation of the rights to use CBTCs we ensure that the flows across the cross-border transmission lines and in all parts of the internal transmission network within limits, which still allow safe and reliable operation of all interconnected power systems. Regulations, inter alia, require the mandatory use of the market based method for allocating the rights to use available CBTCs, among which in Europe currently explicit and implicit auctions are used.

In 2013, in comparison with the previous year no significant changes in this area were imposed. An all borders, allocations of CBTCs were conducted according to Intraday, Day ahead, and for an individual month and for the whole year. The allocations of CBTCs on monthly and yearly level were conducted on all three Slovenian electricity borders (with Austria, Italy and Croatia) by explicit auctions. On the borders with Austria and Croatia on daily level explicit auctions were held, while on the border with Italy implicit auctions were used within market coupling between Slovenia and Italy. Intraday allocations were performed on the borders with Austria and Croatia within continuous trading, while on the border with Italy two explicit auctions were held every day; the first auction was for allocations of CBTCs for each hour of the day, and was held in the afternoon, while the second one was intended for allocation of CBTCs for the last eight hours of the day. All explicit auctions on the border with Italy were conducted by the auction house CASC EU with its headquarters in Luxembourg, and all explicit auction on the Austrian and Croatian border by the auction house CAO based in Germany. The transfer of the auctions on the border with Croatia from the electricity TSOs to the CAO was actually the biggest change in the area of the cross-border transmission capacities. The auctions were held by the same rules as on the borders with Austria.

In 2013, market coupling continued on the Slovenian and Italian border by which CBTCs for a day ahead started to be allocated through implicit auctions. Market coupling brought many benefits to the Slovenian electricity market, particularly in terms of the establishment of stock market liquidity, in order to acquire credible stock market index and to achieve optimal utilisation of the cross-border transmission infrastructure on the Slovenian-Italian border. Since the beginning of implementation of market coupling, problems were caused by the fact that the energy purchased in the Slovenian market has to be paid within two days after the date of delivery, while in the Italian market the energy has to be paid not before 16th working day in the second month following delivery, which is on average more than 60 days after delivery. This issue was in 2013 solved since Italy introduced payment for the supplied energy within two days from delivery date. On the other hand, the traders continued the practice based on the rule "use a CBTC or lose it", and returned almost all CBTC allocated on monthly and annual auctions. In practice that meant that in 2013 through the market couplings all available CBTCs were allocated. The total volume of the transferred energy amounted to 3,702,165 MWh, out of which only 20,556 MWh were allocated by using capacity allocated on monthly or yearly level, and that represented only half a percent of all transferred energy through the year.

Table 13 shows a review of the allocated CBTCs by an individual border, the total revenues from the auctions and the price for allocated megawatt hour.

Table 13: Review of the allocated CBTCs and the revenues from the auctions by the border

Border	Allocated (MWh)	Revenue (euros)	Price for allocated CBTCs (euros/MWh)
SI-IT	3,407,428	56,582,331	16.61
IT-SI	1,159,673	139,865	0.12
SI-AT	7,970,815	965,420	0.12
AT-SI	4,141,763	15,359,808	3.71
SI-CRO	8,795,423	1,913,285	0.22
CRO-SI	8,388,619	1,528,029	0.18

Source: ELES

It should be noted that the amounts of allocated CBTCs presented in Table 13 stand for the amounts on the specific border and in a given direction, when they were allocated in case when the demand exceeded the supply and users of the CBTCs had to pay for them the market price. On the border within Italy, where due to market coupling the results are detailed, in the direction to Italy 294,737 MWh were allocated in the hours, when total available capacity was not allocated. It is clear from the table that, even in 2013, the highest prices were set for the CBTCs in the direction from Slovenia to Italy. This is still mainly because of price differences between Slovenia and Italy. At the same time, on the German-Austrian market electricity prices were lower than in the Slovenian market, electricity prices were also higher in the direction from Austria to Slovenia.

The access to cross border network capacities consists of two phases. The first phase is allocation of the right of their use, while the second is the nomination of the actual use. In the case of explicit auction, these are to separate procedures, while in the case of implicit auction (market coupling) obtaining of capacity automatically brings its nomination for both central counterparties. Contrary to this, a network user who obtained a cross border capacity in an explicit auction needs to nominate it to the TSO within the specified deadline. The network user can decide to use the whole cross-border capacity, part of it or not to use it at all. In the latter case, the rule "use-it-or-sell-it" applies for the capacities obtained in yearly and monthly auctions, which means that the network user sells unused capacity back to the TSO who sells it in an auction for the shorter time period. The network user gets this capacity paid by the TSO at the price achieved in this auction. For the capacities obtained in explicit auctions for the day-ahead timeframe the rule "use-it-or-lose-it" applies, which means that the market participant pays the whole capacity obtained in the auction at the achieved price, irrespective of whether this capacity is used or not.

Due to market coupling, in 2013 the largest share of CBTCs utilization rate was at the border from Slovenia to Italy, which was at average 97%, where almost in 88.5% of hours reached the value 1. The use of CBTCs for all borders is shown in Table 14.

Table 14: Utilization rate of CBTCs in 2013

Border	Utilization rate of CBTCs (%)
SI-IT	97
IT-SI	6
SI-AT	30
AT-SI	73
SI-CRO	47
CRO-SI	56

Source: ELES

3.2.6.2 Cooperation between regulators

In 2013, most of the cooperation between the regulators of the European countries took place within the Agency for the Cooperation of Energy Regulators (ACER). In the field of electricity, the regulators in each region cooperated in order to establish targets models for allocation of CBTCs until 2014, and at the European level in order to prepare network codes for different areas of the electricity market, network access and operation, implementation of the Regulation 1227/2011 on wholesale energy market integrity and transparency (REMIT) and in development of the pan-European electricity transmission infrastructure.

The Slovenian electricity market is situated between three different regional markets with very different energy prices. These are the market of Central-Eastern Europe (Germany, Austria, Poland, Czech Republic, Slovakia and Hungary), the Italian market, and the market of South-East Europe. In all three markets regional initiatives are being carried out under the guidance of ACER and national regulators.

In the area of development of regional electricity markets the regulators of all European regions cooperate in a way to establish electricity market target models, especially with an aim to implement harmonised rules on determine an allocating CBTCs. Four key areas are identified where harmonization between the regions must be achieved:

1. **Day-ahead CBTCs allocation**
   Day-ahead CBTCs allocation is the target model for market coupling of individual regions in a way that several regions could be coupled in a single European market. One of the key task will be creating a unique deadline for collecting the bids for day-ahead on all European Power Exchanges. Target model provides that this period should be at 12.00. Model solutions are prepared by Power Exchanges within the project PCR (Price Coupling of Regions).
2. **Intraday CBTCs allocation**
   For Intraday CBTCs allocation the target model is implementation of continuous trading between Power Exchanges at time of CBTCs allocation (implicit allocation). Key solutions of target model are being prepared by Power Exchanges within the project XBID (Cross Border Intra Day).
3. **Forward CBTCs allocation**
   Forward allocation of CBTCs means allocation on any time base longer than a day. This allocation will continue to use explicit auctions, but only on a level of individual region or several regions together. Except for physical transmission rights, individual region can decide also for financial transmission rights.

4. CBTCs

In accordance with ACER Framework Guidelines on Capacity Allocation and Congestion Management the use two coordinated capacity calculation of available capacities is possible. For highly mashed networks a Flow-Based method is preferred, and ATC method for the regions with less meshed networks, which is in used in Europe since the establishment of the electricity market.

In the region Central-Eastern Europe (CEE) since 2006 activities have been carried out to establish and allocating CBTCs according to Flow Based method. All the necessary preparations to implement this method are carried out by the system operators under the supervision of the regulators. The start of using this method has been in past years repeatedly postponed. Since from the beginning this method was planned for explicit auctions for day-ahead, the question on implementation of this method arose, since it would be in contradiction with the target model. In 2012, the regional regulators and ACER signed a joint statement, according to which they agreed that the target solution for market coupling is by using FB method. In 2013, the regulators of the CEE region and ACER were preparing a joint statement (Memorandum of Understanding) on market coupling, which would be signed by all regulators, TSOs, Power Exchanges and ACER. This market coupling would be introduced together with other two regions. Another important area in the CEE region was implementation of intraday CBTCs allocation model, which at the moment, is carried on only on individual borders and in a way that successful bidders get intraday CBTCs without payment.

As in the CEE, in the region Central-South Europe (CSE) majority of activities was dedicated to find the ways to achieve the target model of the market to 2014. Unlike CEE region, where networks are strongly meshed, the structure of networks in CSE does not cause major problems with loop flows, therefore the participants decided that they will continue to use ATC method. In 2013, most of the cooperation between regulators and other participants was dedicated to regional market coupling, which is going to be introduced in 2014. One of the major issues will be a new closing time for tenders, which will be at 12.00. Apart from the market coupling, in 2014 the Intraday CBTCs allocation should be introduced since the current method with two auctions is not harmonised with the European Target Model.

With Croatia's EU accession in the middle of 2013, the Slovenian cooperation with the so-called eight region (South-East Europe) weakened. Since Croatia has decided to eliminate the borders with Slovenia and Hungary from this region and leave the allocation of CBTCs to the auction house CAO, which is based in Germany, Slovenia is no longer directly involved in this region. Consequently, the extent of the cooperation with other regulators from this region is less intensive.

In the area of infrastructure development, the regulators cooperated with ENTSO-E in the preparation of non-binding TYNDP, which should be published in mid-2014. The regulators participated by communicating their proposals and opinions in workshops, which were organized on regional levels. Some regulators also cooperated bilaterally. The Energy Agency worked with Italian regulator in assessing the application of private investors for an exemption from certain provisions of Regulation 713/2009 for two planned commercial lines between the countries.

The Energy Agency actively participated in ACER and CEER working groups, which affect the implementation of European Regulation on Wholesale Energy Market Integrity and Transparency (REMIT). The participation was the most intensive in the group, which is engaged in providing a platform for the registration of market participants according to REMIT and accordance to which the wholesale electricity and gas market participants have to do registration at the national regulator in order to establish the conditions for reporting the transactions to ACER. The Energy Agency started to develop a national register of market participants, which will be integrated with the European register CEREMP (Centralised European Register for Market Participants) administrated by ACER. Development of the national register will enable an optimal user experience, process efficiency and reduction of administrative burdens for all stakeholders. National and European register will have an important role in the implementation of the updated methodology on energy market monitoring, which will be implemented on the basis of the new EA.

In order to ensure implementation of the task related to electricity and gas markets monitoring concerning cross-border issues, the Energy Agency in August 2013 signed the Memorandum of Understanding with the Austrian regulatory authority (E-Control) according to which the regulatory authorities will strengthen cooperation on mutual exchange of information on suspicions actions in the context of electricity and gas markets abuses in line with REMIT.

The EU regulators cooperated also in other areas, particularly within the ACER and CEER working groups, and other projects related to ACER's tasks.

3.2.6.3 Control over the investment plans of the electricity TSO

In July 2012 ENTSO-E announced a 10-year development plan (TYNDP) for the period 2012–2022. TYNDP includes planned investments in the transmission infrastructure in 34 European countries. Over 100 projects are identified as pan-European projects in the total estimated value of € 104 billion, out of which € 23 billion are allocated for submarine cable connections.

TYNDP in its context promotes the integration of renewables, reliable electricity supply, as well as promotes the internal EU electricity market.

The objectives of TYNDP are the enforcement of transparency in the field of investment in transmission network and providing support for decision-making on investments at the regional level.

In TYNDP for 2013-2022 for the Slovenian transmission system the following investments are foreseen:

- 2 x 400 kV Beričevo–Krško transmission line.
- 2 x 400 kV Cirkovce–Pince transmission line
- 2 x 400 kV Okroglo–Videm transmission line,
- 2 x 400 kV Divača–Cirkovce the upgrade from 220 kV to 400 kV
- a new one way HV line between Italy and Slovenia

2 × 400 kV Beričevo-Krško transmission line is completed, and in trial operation, 2 x 400 kV Cirkovce–Pince in a planning phase and obtaining approvals, and other investments are classified as long-term plans. All these projects are planned in the system operator's TYNDP, except the new connection between Italy and Slovenia, which is still under study.

ELES in 2013 allocated € 46.2 million for investment, which was 25% less than planned € 62 million. Lower realization is mainly the result of legislation, coordination with local communities and inaccurate land register. Among most important completed investments in 2013 were 2 × 400 kV Beričevo-Krško transmission line, 2 × 110 kV Beričevo-Trbovlje transmission line, 400 kV switchyard in NEP – primary and secondary equipment, 2 × 110 kV transmission line Toplarna-Polje-Beričevo and construction of two 400-kV transmission lines bays Krško I+II in 400/220/110 kV Beričevo substation.

3.2.7 Compliance

In accordance with the Third Energy Package the national regulatory authorities of EU Member States have to provide for the implementation of binding decisions of ACER and the European Commission. To this end, in the beginning of 2014 the required provisions were implemented to the Slovenian energy legislation, which will in practice enable the Energy Agency to meet these requirements.

Since 2004, when the first Regulation on conditions for access to the network for cross-border exchanges in electricity (Regulation No 1228/2003) entered into force, the Energy Agency is responsible for compliance with this regulation in Slovenia; the regulation was on 3 March 2011 replaced by the current Regulation No 714/2009.

3.3 Market-based activities

3.3.1 Organized electricity market in Slovenia

The Slovenian organized electricity market for electricity is basically divided into the wholesale market and the retail market. On the wholesale market, producers, traders and suppliers of electricity participate. They trade on the basis of closed contracts, in which the quantity and the time profile of supply of contractual volumes of electricity are set in advance, so that the prices do not depend on the actual realization of the contracts. The wholesale market participants conclude their business by the bilateral transactions in so called OTC market or at the exchanges in Slovenia and abroad. Ower exchanges provide their market participants with Day-ahead and Intraday trading, for the purpose of balancing of the system or with forward tradings, which usually cover longer periods of time than one day. In the retail market the suppliers and customers enter into open contracts, in which the quantities of energy supplied and the time profile of supply of contractual volumes are not set in advance. Customers pay the energy supplied according to actual amount of electricity consumed, as measured by the installed meters.

Borzen, d. o. o., the organizer of the Slovenian electricity market, is, according with the EA, mandated to record all the closed contracts on a regulated market. Thus, Borzen supervises the agreed contractual obligations in which electricity is bought or sold in Slovenia, or is transferred across the regulated area. This includes the recording of all contracts between members of the balance scheme; all export and import closed contracts and closed business transactions on the exchange. In addition, the organizer of the market in the form of operational schedules of production and consumption keeps records of the contracts between the suppliers, the consumers and electricity producers.

In 2013, a total of 106,533 closed contracts and a total of 80,297,697 MWh of operational forecasts included in the open contracts were registered. In comparison with 2012, the number of recorded closed contracts and operational forecasts increased by 6.2%, and the total amount of electricity from recorded closed contracts and operational forecasts decreased by 1.5%.

3.3.2 Production and the wholesale market

3.3.2.1 Production companies

In 2013, the following 9 companies operating large facilities with a capacity of over 10 MW:

- Dravske elektrarne Maribor (DEM)
- Soške elektrarne Nova Gorica (SENG)
- Savske elektrarne Ljubljana (SEL)
- Hidroelektrarne na spodnji Savi (HESS)
- Termoelektrarna Šoštanj (TEŠ)
- Termoelektrarna Trbovlje (TET)

- Termoelektrarna Brestanica (TEB)
- Termoelektrarna toplarna Ljubljana (TE-TOL)
- Nuklearna elektrarna Krško (NEK)

The companies DEM, SEL, HESS and SENG generate electricity in hydroelectric power plants (HPP), NEK in a nuclear power plant (NPP), TEŠ and TET in thermoelectric power plants (TPP) running on coal, TEB produces electricity from liquid and gaseous fuels, and the TE-TOL Ljubljana cogenerates heat and electricity in a cogeneration process using coal.

Within the company Holding Slovenske elektrarne (the HSE) in 2103 the companies DEM, SENG, HESS, TEŠ and TET were operating. The HSE represented the first energy pillar in the Slovenian wholesale market. The second energy pillar of the wholesale market was formed by the group of GEN energija, in which companies SEL, TEB and NEK were operating.

In addition to the production in large power plants connected to the transmission network, the Slovenian electricity system also includes dispersed production facilities connected to the distribution network. With respect to dispersed sources there are two main types of important production in Slovenia, i.e., the production in small hydroelectric power plants and the production in industrial facilities for the cogeneration of heat and electricity, which in recent years faces the highest growth. Except for small solar power plants the number of new facilities that produced electricity from other renewable sources (biomass, biogas, wood biomass, landfill gas, etc.) increased as well.

According to the bilateral agreement between Slovenia and Croatia, half of the production from the Krško NPP belongs to Croatia, which reduces the share of the Krško NPP in the Slovenian production of electricity. Thus, in 2013 the Slovenian power plants produced a total of 15,431 GWh of electricity, but the actual Slovenian production was smaller, amounting to 12,931 GWh.

In 2013, the largest share of electricity production in Slovenia that actually belongs to the Slovenian consumers (including a half of the Krško NPP's production) was contributed by the thermoelectric power plants and the hydroelectric power plants producing almost 70.5% of all the electricity. These are followed by NPP, producing about one fifth of all the electricity. Table 16 presents the data on production by sources. It should be mentioned that numbers in this table are slightly different that the ones in Chapter 2.1. The difference happened due to different ways of reporting of the system operators and production companies. The system operators subtracted the consumption in time when plants were not operating, and the production companies reported on actual delivery of energy to the grid. For this reason, the values in Table 16 are slightly higher than those in table in section 2.1.

Table 15: Installed capacities in the production facilities in the Republic of Slovenia

Producer	Installed capacity (MW)	Share – all producers in SI (%)	Share on the transmission network (%)
HSE	**1,866**	**57.0%**	**67.3%**
HPP	1,036		
TPP	830		
GEN energija	**763**	**23.3%**	**27.5%**
HPP	118		
TPP	297		
NPP*	348		
TE-TOL	**113**	**3.5%**	**4.1%**
Other small producers (on the transmission network)	**28.7**	**0.9%**	**1.0%**
Small HPP	10.4		
Solar power plants	2.8		
CHP using fossil fuels	15.6		
Other small producers (on the distribution network)	**502.93**	**15.4%**	**–**
Small HPP	102.51		
Solar power plants	259.51		
Wind-powered plants	2.14		
Facilities using biomass	3.30		
Geothermal power plants	0.00		
Facilities using landfill gas	7.06		
Facilities using gas from purification plants	1.20		
Facilities using biogas	28.41		
CHP facilities using wood biomass	11.97		
CHP using fossil fuels	86.83		
Total in SI	**3,274**	**100%**	**–**
- on the transmission network	**2,771**	**–**	**100%**

* the 50-% of the installed capacity of Krško NPP is taken into account

Sources: Companies' data

Table 16: Shares of different types of electricity production in Slovenia

Type of production	Production (GWh)	Share	Production – 50 % NPP (GWh)	Share
NPP	5,036	32.6%	2,518	19.5%
TPP	4,518	29.3%	4,518	35.0%
HPP	4,583	29.7%	4,583	35.5%
Other small producers (on the transmission network)	110	0.7%	110	0.8%
Other small producers (on the distribution network)	1,184	7.7%	1,184	9.2%
Total	**15,431**	**100.0 %**	**12,913**	**100.0 %**

Sources: Companies' data

In 2103, a total of 28.98 MW of new production capacities were connected to the Slovenian electricity network, mostly solar plants, which amounted to 14.89 MW. In the second place were CHP using fossil fuels, which generated 12.7 MW. And in 2013, for 25.35 MW of generating capacity connected to the power system had ceased to operate.

Table 17: Connections and disconnections of production facilities in 2013

Type of production	MInstalled new net capacity in 2013 (MW)	Disconnected power plants in 2013 (MW)
Thermoelectric power plants using gas and fossil fuels	0.00	25.00
HPP	0.89	0.10
Solar Power Plants	14.89	0.20
Wind-powered plants	0.16	0.05
CHP facilities using wood biomass	0.34	0.00
CHP using fossil fuels	12.70	0.00
Total	**28.98**	**25.35**

Sources: System operators

3.3.2.2 The degree of competitiveness of the production companies

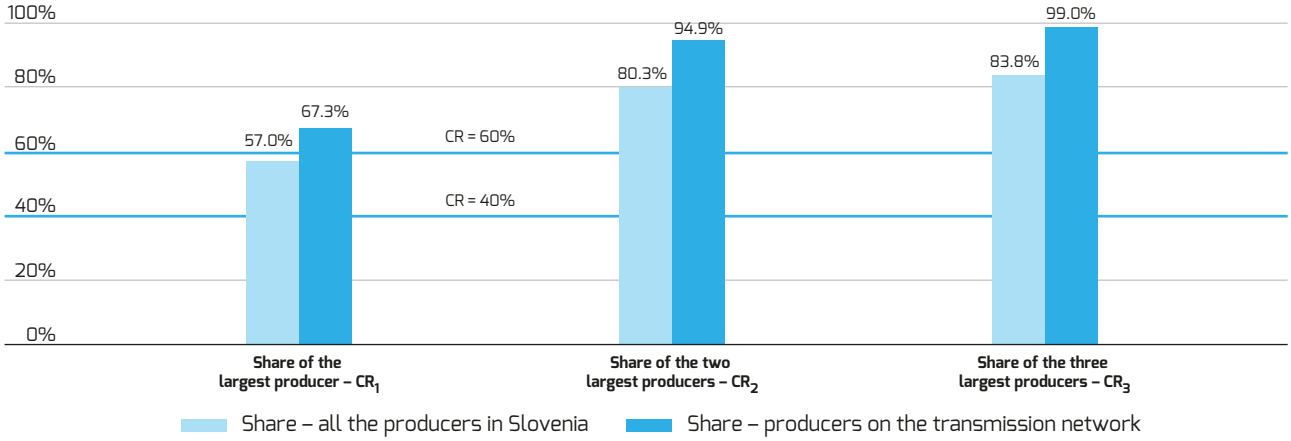
With a concentration rate, we express the total market share of the largest companies in the area, and measure the level of market dominance, or oligopoly. The concentration rate is mainly affected by two factors: the number of companies in the market and their relative sizes. As the concentration rate is the sum of the shares of a selected number (n) of the largest companies in the market, it does not entirely explain the distribution of the market power. The concentration rate relating to a selected number of the largest companies is marked as CRn.

In accordance with Article 9 of the Prevention of Restriction of Competition Act (ZPOmK-1 (Official Gazette No 36/2008), in Slovenia a market participant has a dominant position in the market if its market share exceeds 40%. It also applies that two or more companies have dominant position if their share exceeds 60%. In the electricity market the concentration of the production is of utmost importance.

In the figures below three different indicators of concentration rate, i.e., the market share of the largest producer (CR1), the market share of the two largest producers (CR2), and the market share of the three largest market producers (CR3) in Slovenia.

Figure 12 shows the CR indicators with respect to the installed capacity, separately for all the producers in Slovenia, and for the producers on the transmission network (50% of the capacity installed at the Krško NPP is taken into account).

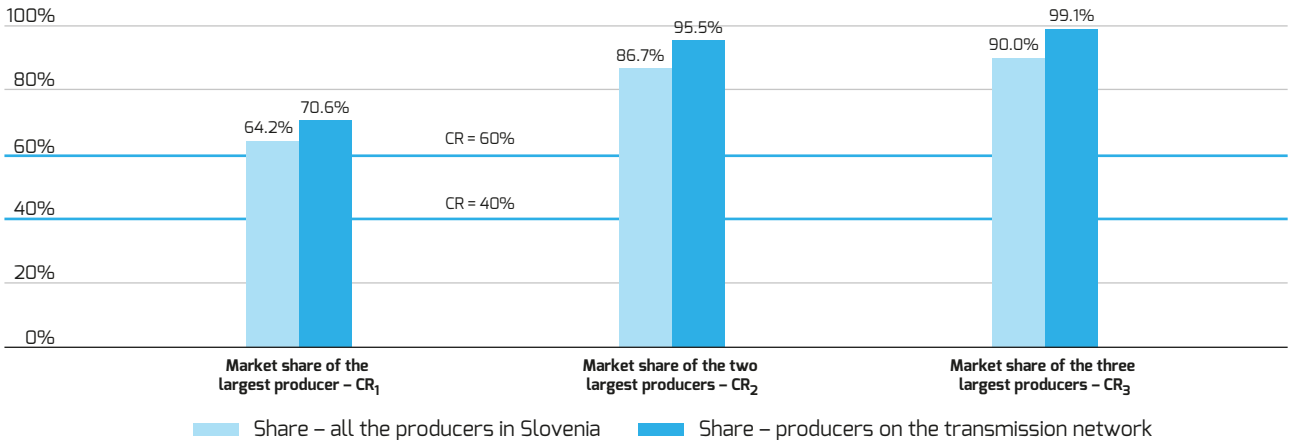
Figure 12: Cumulative share of the one (CR1), two (CR2) and three (CR3) largest producers with respect to the installed capacity (50%of Krško NPP)



Sources: Companies' data

Next figure shows the CR indicators with respect to electricity production (50% of Krško NPP is taken into account).

Figure 13: Cumulative share of the one (CR1), two (CR2) and three (CR3) largest producers with respect to electricity production (50% of Krško NPP)



Sources: Companies' data

In 2013, no significant changes were noted in the market structure caused by the ownership and operational restructuring of the production companies. Two energy pillars in the wholesale market are formed; HSE and Gen energija remained the dominant company. The share of HSE exceeded 40% (CR1), thus, it remained the largest company. The share of other two largest electricity producers on the transmission network managed more than 95% (CR2), and the three largest electricity producers on the transmission network managed more than 99% (CR3) In the wholesale market very tight oligopoly is created, caused by the fact that there are only two energy pillars.

The Herfindahl-Hirschman index (HHI) takes into account the total number of companies in the market, and their relative sizes. Companies with smaller market share have less weight. An HHI up to 1000 indicates a low concentration; between 1000 and 1800 indicates a medium concentration; and above 1800 indicates a high market concentration. A high concentration means a small number of market participants with large market shares.

The HHIs have been calculated on the basis of the total installed capacity, the installed capacity on the transmission network, and on the basis of the produced electricity, taking into account 50% of the production from the Krško NPP. The situation is shown in Table 18 and in Table 19.

Table 18: HHI with respect to the installed capacity

Producer	Market share with respect to the installed capacity – Total SI	Market share with respect to the installed capacity – on the transmission network	HHI with respect to the installed capacity- Total SI	HHI with respect to the installed capacity- on the transmission network
HSE	57.0%	67.3%	3,249	4,535
GEN energija	23.3%	27.5%	543	758
TE-TOL	3.5%	4.1%	12	17
Other small producers (on the transmission network)	0.9%	1.0%	1	1
Other small producers (on the distribution network)	15.4%	-	236	-
Total in SI	**100.0%**	**-**	**4,041**	**-**
- on the transmission network	**-**	**100,0 %**	**-**	**5,311**

Sources: Companies' data

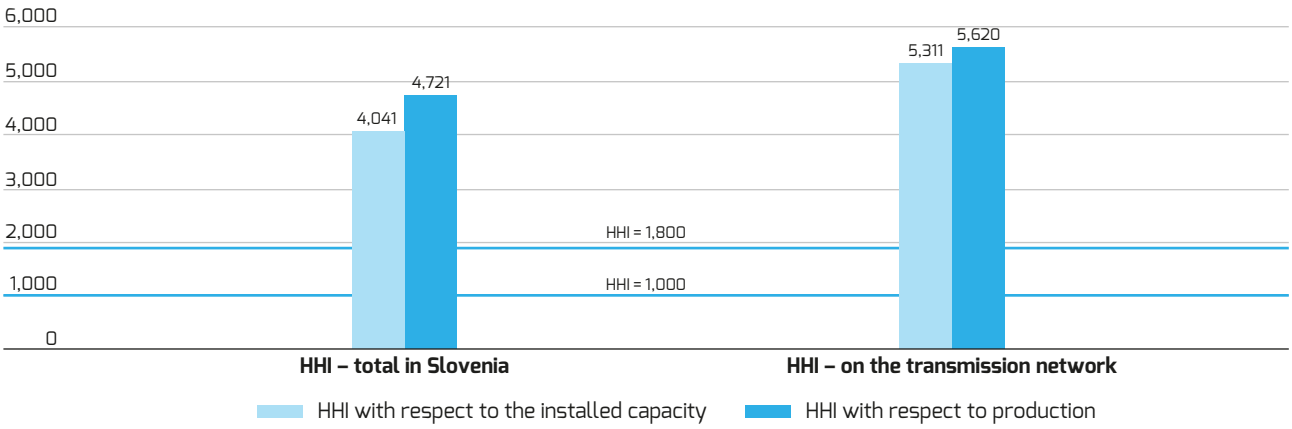
In 2013, HHIs were still very high and significantly exceeded the upper limit of the medium concentration (HHI = 1800), showing the dominant position of the producers DEM, SENG, TEŠ, TET and HESS, joined in the HSE with respect to the production of electricity as well as the provision of ancillary services. Gen energija consists of SEL, TEB and Krško NPP. The third largest producer is TE-TOL. Other small producers connected to the transmission and distribution network contribute as well to the total production of electricity in Slovenia.

Table 19: HHI with respect to production

Producer	Market shares with respect to production – total in SI	Market shares with respect to production – on the transmission network	HHI with respect to production – total SI	HHI with respect to production – on the transmission network
HSE	64.2%	70.6%	4,116	4,990
GEN energija	22.6%	24.8%	509	617
TE-TOL	3.3%	3.6%	11	13
Other small producers (on the transmission network)	0.8%	0.9%	1	1
Other small producers (on the distribution network)	9.2%	-	84	-
Total in SI	**-**	**-**	**4,721**	**-**
- on the transmission network	**100%**	**100,0%**	**-**	**5,620**

Sources: Companies' data

Figure 14: HHIs of the production companies



Sources: Companies' data

3.3.2.3 The business operations of production companies

According to the unaudited financial statements, the companies for electricity production finished 2013 with a net profit of € 13.04 million, which was 74.2% less than in 2012. The best financial result was achieved by Dravske elektrarne Maribor, d.o.o., and the biggest increase in income in comparison with the previous year was achieved by Hidroelektrarne na spodnji Savi, d.o.o.

Table 20: Net profits of the companies for electricity production

in million of euros

	2012	2013	Index 13/12
Dravske elektrarne Maribor	7.34	12.11	165.0
Savske elektrarne Ljubljana	0.57	0.51	89.5
Soške elektrarne Nova Gorica	7.08	8.41	118.8
Hidroelektrarne na spodnji Savi	1.22	2.20	180.3
Termoelektrarna Brestanica	1.56	1.20	76.9
Termoelektrarna Šoštanj	32.46	2.05	6.3
Termoelektrarna Trbovlje	0.06	-13.08	-21,800.0
Termoelektrarna Toplarna Ljubljana	0.30	-0.63	-210.0
Nuklearna elektrarna Krško	0.00	0.27	
Total	**50.59**	**13.04**	**25.78**

Sources: Companies' data (unaudited financial statements)

At the end of 2013, the companies for electricity production had 2203 employees, of which the hydroelectric power plants had 568 employees, the thermoelectric power plants 999, and the Krško Nuclear Power Plant had 636 staff members. In comparison with 2012, the number of employees in the thermoelectric power plants decreased by 32 employees, or 3.1%, the number of employees in the Krško Nuclear Power Plant increased by 21 employees, or 3.4%, and the number of employees in the hydroelectric power plants increased by 8, or 1.4%.

Table 21: Number of employees in the companies for electricity production

	2012	2013	Index 13/12
Dravske elektrarne Maribor	290	288	99.3
Savske elektrarne Ljubljana	110	111	100.9
Soške elektrarne Nova Gorica	129	132	102.3
Hidroelektrarne na spodnji Savi	31	37	119.4
Termoelektrarna Brestanica	114	113	99.1
Termoelektrarna Šoštanj	464	450	97.0
Termoelektrarna Trbovlje	193	178	92.2
Termoelektrarna Toplarna Ljubljana	260	258	99.2
Nuklearna elektrarna Krško	615	636	103.4
Total	**2,206**	**2,203**	**99.9**

Sources: Companies' data

The state is, directly or indirectly (through the ownership of the HSE and GEN energija), the majority owner of all the companies for electricity production, except for the Krško Nuclear Power Plant, where it holds a 50% share, and Termoelektrarne Toplarne Ljubljana, d.o.o., where the 100% owner is Javno podjetje Energetika Ljubljana, d.o.o.

Table 22: Ownership structure of the companies for electricity production

	Holding Slovenske elektrarne	GEN energija	Dravske elektrarne	Javno podjetje Energetika Ljubljana	Hrvatska elektroprivreda	Drugi delničarji
Dravske elektrarne Maribor	100.0%					
Savske elektrarne Ljubljana		100.0%				
Soške elektrarne Nova Gorica	100.0%					
Hidroelektrarne na spodnji Savi	51.0%	12.6%	30.8%			5.6%
Termoelektrarna Brestanica		100.0%				
Termoelektrarna Šoštanj	100.0%					
Termoelektrarna Trbovlje	81.3%					18.7%
Termoelektrarna Toplarna Ljubljana				100.0%		
Nuklearna elektrarna Krško		50.0%			50.0%	

Source: Companies' data

3.3.2.4 The prices and the extent of the trade at the electricity exchange

The activity of the electricity exchange in the Republic of Slovenia is being carried out by BSP, Regional Energy Exchange, d.o.o. In 2012 the company BSP performed the following services for traders of electricity:

- Day-ahead market which includes also market coupling with Italy
- Submission for Clearing (OTC), the process of registration in the system of accounting and financial settlement for bilateral agreements concluded outside the exchange
- Intraday market (from 16 October 2012), which includes trading on balancing market, jointly operated by BSP, Eles and Borzen

In 2013, no transaction was concluded in the area of OTC clearing. In Day-ahead market favourable conditions from 2012 continued, mainly on behalf of market coupling. Sufficient trading volume made it possible even in 2013 that the Slovenian Power Exchange had real-time hourly pricing. On Day-ahead market trading is conducted in a manner of auction trading in which market participants should submit and withdraw their bids in the trading platform till the end of the trading; after closing time the stock the marginal price is calculated, which is the price of all concluded deals for certain product. For day-ahead trading the Slovenian stock exchange uses only hourly products, which means that traders could bid (for buying and selling) only for an individual hour. In 2013, the total amount of traded energy on Day-ahead amounted to 5,754,885,079 MWh, which was 30% more than in 2012; for 17.8 TWh tenders were registered, out of that 8.2 TWh for buying and 9.6 TWh for selling.

Average annual Base price in 2013 was 43.17 EUR/MWh, and 49.79 EUR/MWh for Peak, which meant that both prices decreased for 19% in comparison with 2012. The lowest price was noticed in June due to higher production of wind-powered plants in Germany in the beginning of the month. The highest price was October. The highest trading volume was reached in March, when average daily volume exceeded 18 GWh. In August, the trading volume was the lowest, manly on behalf of lower prices for CBTCs at the Slovenian-Italian border. Average daily trading volume was 12.4 GWh.

Electricity prices on the Slovenian Power exchange in 2013 mainly followed prices on other exchanges. Prices were equivalent mostly to the prices on Austrian and German markets, the biggest difference was with regard to the prices on the Italian market. Pearson's correlation coefficient between the prices on the Slovenian and German-Austrian market amounted to 0.75, and between the Slovenian and Italian market 0.67. These values confirm a specific interaction between the markets, which are mainly limited by available CBTCs. In Table 23 the comparison of average Base and Peak for the Slovenian and neighbouring Stock exchanges is shown.

Table 23: Prices for Base and Peak on the Slovenian and neighbouring stock exchanges

Stock Exchange	Base (EUR/MWh)	Peak (EUR/MWh)
Slovenia (BSP)	43.18	49.79
Austria (EXAA)	37.43	42.91
Germany (EPEX)	37.78	43.13
Hungary (HUPX)	42.62	50.91
Italy (GME – Nord)	61.58	65.23

Sources: Website of stock exchanges

The data in Table 23 show that the prices on the BSP varied between the prices on the power exchanges in the German-Austrian market and Italian market. Prices in Hungary were in 2013 very similar to the Slovenian prices.

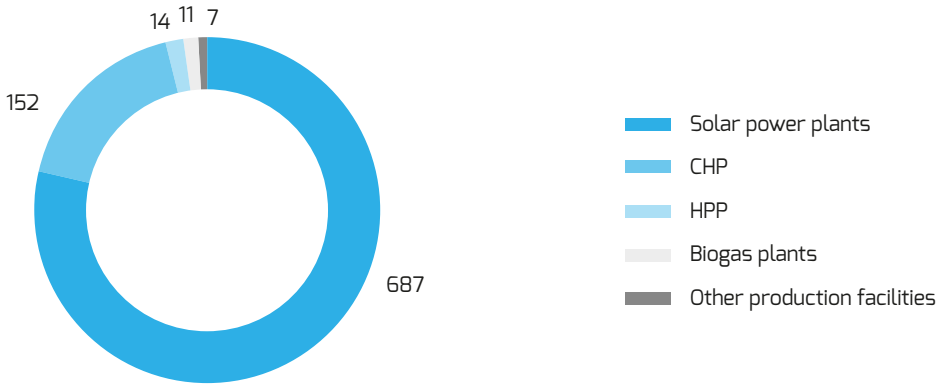
Intraday trading unlike the trading on day-ahead market is conducted in a manner of continuous trading; the participants can submit and withdraw their bids as long as there are overlaps of supply and demand. In 2013, 698 contracts on Intraday trading were concluded, in total amount of 83,985 MWh. The share of transaction for energy needed for balancing was less than 80%. The total volume of bids for this period amounted to 1,383,796 MWh.

3.3.2.5 Renewable energy sources and cogeneration of useful heat and power

Declarations for a production facility and decisions on granting support

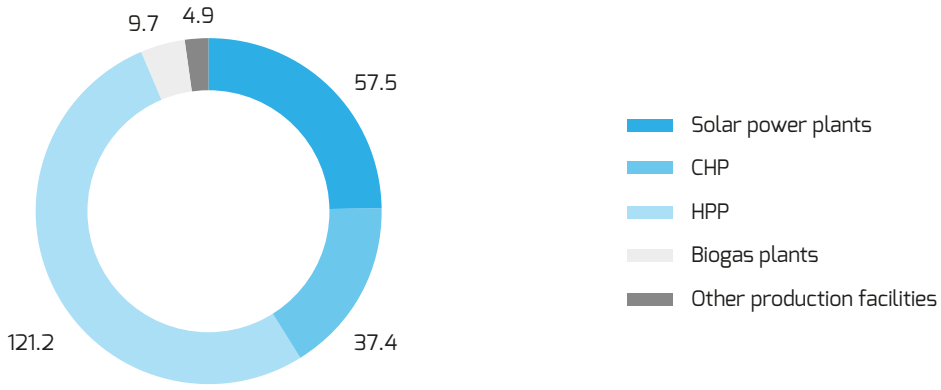
In 2013, the Energy Agency issued 871 declarations for a production facility using RES or for co-generation facilities. Most of declaration were issued for solar power plants. For some production facilities (mainly CHP), for which the validity of existing declaration expired, new declarations were issued.

Figure 15: Number of the issued declarations for production facilities in 2013



Source: Energy Agency

Figure 16: Net capacity in MW of production facilities with issued declarations in 2013

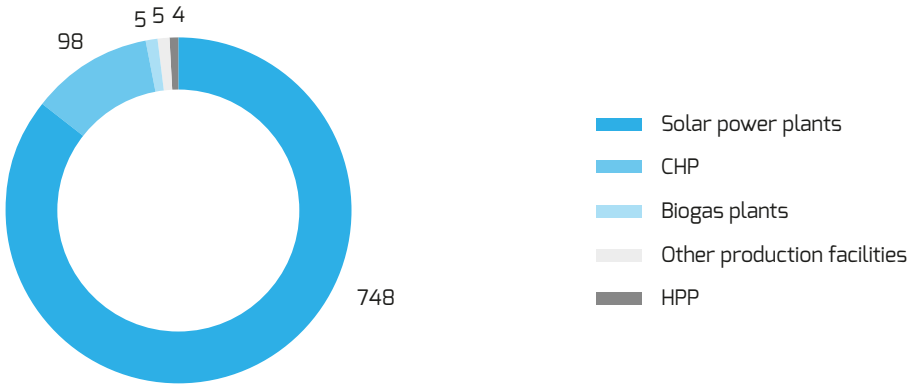


Source: Energy Agency

Other production facilities are the plants using landfill gas, gas from purification plants and wind-powered plants.

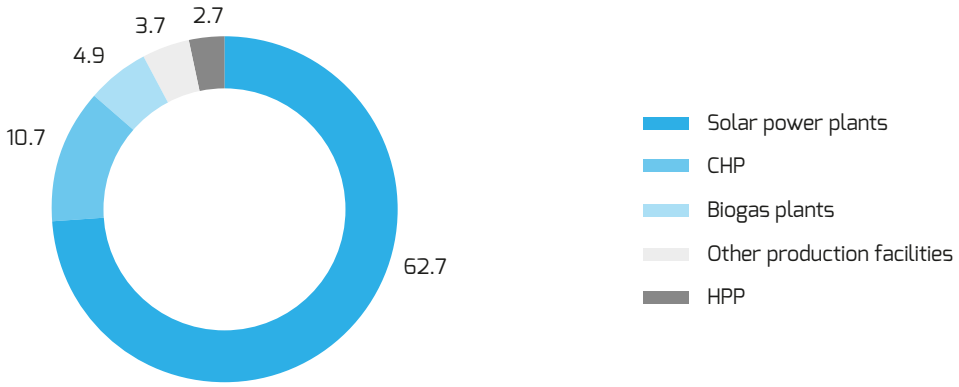
In 2013, the Energy Agency issued 860 decisions on granting support according to the new support scheme, most of them for solar power plants.

Figure 17: Number of issued granted support for the production facilities in 2013



Source: Energy Agency

Figure 18: Net capacity of the production facilities in MW that received decisions on granting support



Source: Energy Agency

Production facilities included in the support scheme in 2013 produced 803 GWh of electricity, and the paid support in total amounted to € 118.4 million.

Table 24: Production of units included in the support scheme and paid support

Type of facility	Electricity produced (GWh)	Paid support (in million EUR)
HPP	131.4	7.5
Solar power plants	219.5	59.2
Wind-powered plants	2.0	0.1
Biogas plants	132.2	16.3
Facilities using wood biomass	87.1	11.0
CHP facilities using fossil fuels	229.8	24.1
Others	1.0	0.2
Total	**803.0**	**118.4**

Source: Borzen

Guarantees of origin and RECS certificates

In 2013, the Energy Agency issued guarantees of the origin of electricity for a total of 4,805.7 GWh and for a total of 33.6 GWh RECS certificates (Renewable Energy Certification System).

3.3.2.6 Emission allowances

The system of trading with emission allowances includes the facilities with an input heat power of 20 MW, and, with respect to the energy sector, also the facilities with an input heat power of 15–20 MW.

In line with the Environmental Protection Act, the National Distribution Plan for Emission Allowances for the Period 2008–2012 was prepared in Slovenia. This document sets the number of emission allowances distributed by the state free of charge. One emission allowance represents a tonne of CO_2. For each current year, the companies, i.e., the operators of the facilities have to register the number of emission allowances that matches their CO_2 emissions. If their emissions exceed the number of distributed emission allowances, the operators have to buy the remaining emission allowances in the market. If, on the other hand, the operators have a surplus of emission allowances because they produce small amounts of emissions, they can sell their allowances at the auction or bilaterally.

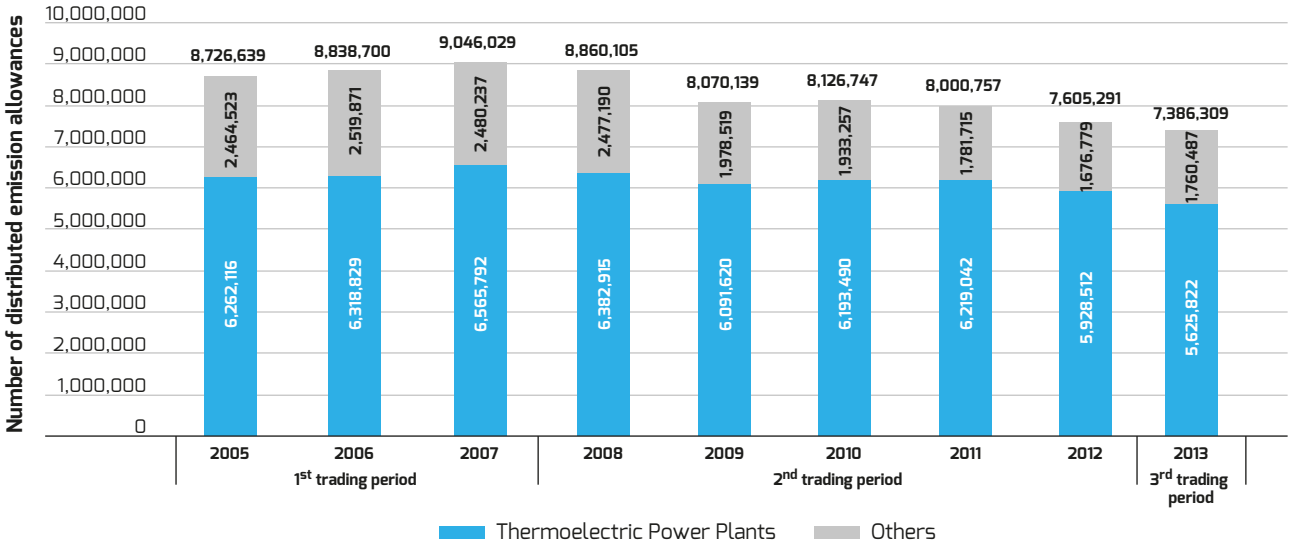
In accordance with the amendment of the Environmental Protection Act from 2013, the operators of electricity production facilities, carbon capture and storage facilities have to, from 2013 onwards, buy all emission allowances. The government has adopted an Ordinance on the list of operators of installations emitting greenhouse gases, for the period 2013–2020. The ordinance contains the list of facilities operators:

- which are during this period entitled to free emission allowances
- which are not entitled any more to free emission allowances (TPP Brestanica in TPP Trbovlje)
- which are excluded from the emission allowances system trading since they will carry out equal measures

TPP Šoštanj and TPP and district heating plant Ljubljana (Termoelektrarna Toplarna Ljubljana) are from 2013 on eligible to free emission allowances only in the proportion that relates to production of heat for district heating.

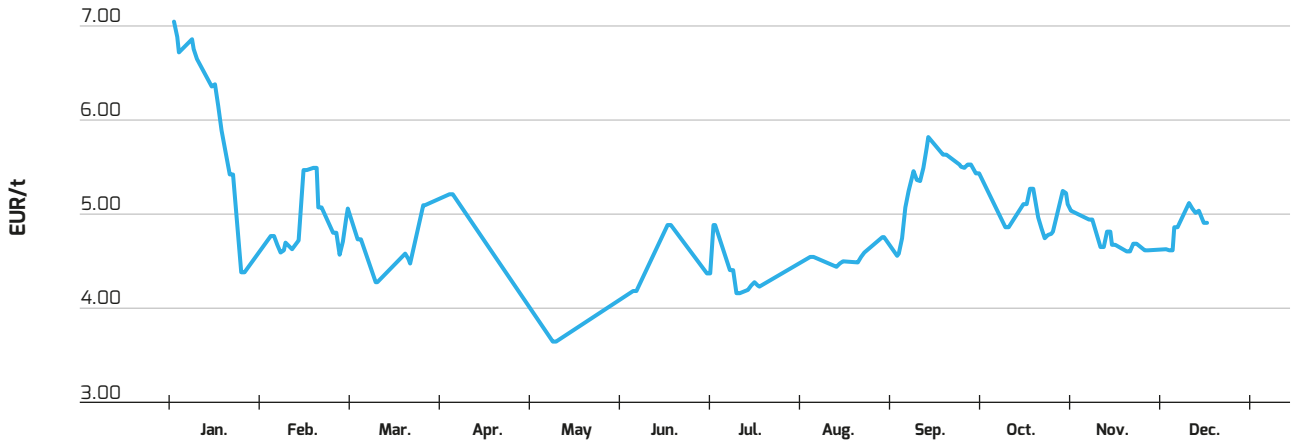
In 2013, when the third trading period began the thermal-energy sector was handed over for 5,625,822 of emission allowances, which was 76% of all emission allowances distributed in Slovenia. In the next figure the number of distributed emission allowances for period 2005–2013 is introduced.

Figure 19: Number of distributed emission allowances for period the 2005–2013



Source: National plan for the distribution of Emission Allowances, Environmental Agency of the RS

Figure 20: Trends of the price for emission allowances in the third trading period in 2013



Source: EEX

Figure 20 shows the price of emission allowances on the EEX (purchase in 2013 for 2014). The price varied between 4 and 6 euros per tonne of CO_2.

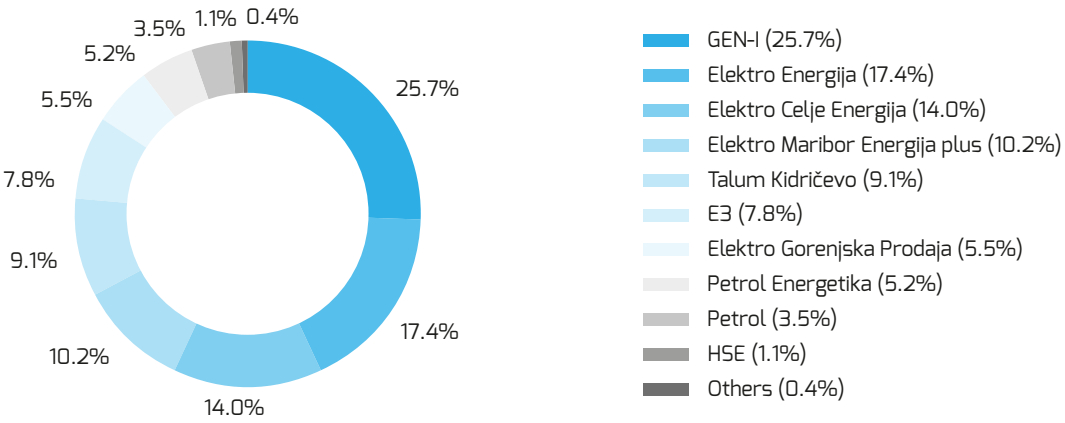
In accordance with Decree on environmental tax on carbon dioxide emissions, the responsible ministry calculated the average price of emission allowances in 2013, which amounted to 4.39 euros per tonne of CO_2.

3.3.3 Supply and the retail market

3.3.3.1 Electricity supply to all end consumers

In 2013, 14 suppliers were active in the Slovenian retail market, delivering electricity to 7 large consumers connected to the transmission network, and 933,033 business and household consumers connected to the distribution network.

Figure 21: Market shares of the electricity suppliers to all end consumers at the end of 2013



Sources: Companies' data

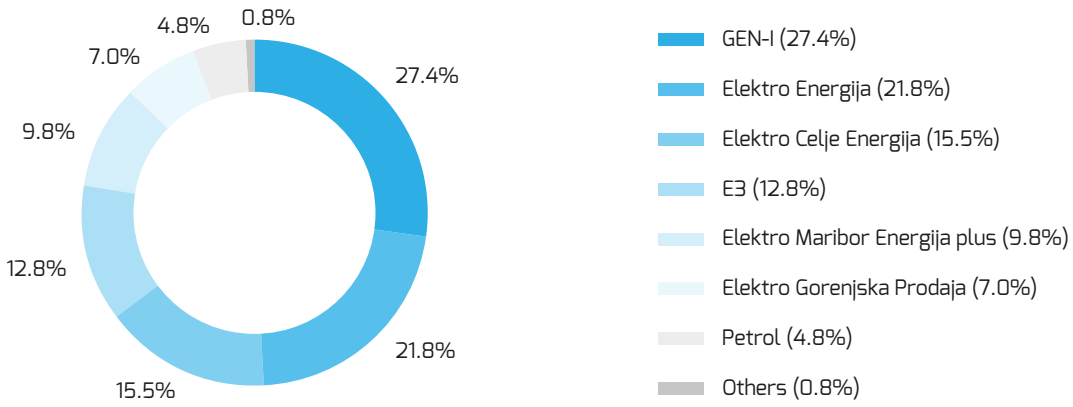
In 2013, electricity was supplied also by TALUM Kidričevo, d.d, which in the retail market covered 9.1% of total consumption.

At the end of 2013, the end consumers in Slovenia were supplied with 13.1 TWh of electricity. GEN-I had the largest market share, 25.7%; the second largest share had the company Elektro Energija, 17.4%.

3.3.3.2 Supply to the consumers on the distribution network

With respect to the market shares of the suppliers to the customers on the distribution network, GEN-I had the largest share, with 27.4% of market share, and Elektro Energija came second with 21.8%.

Figure 22: Market shares of the suppliers to the consumers on the distribution network at the end of 2013

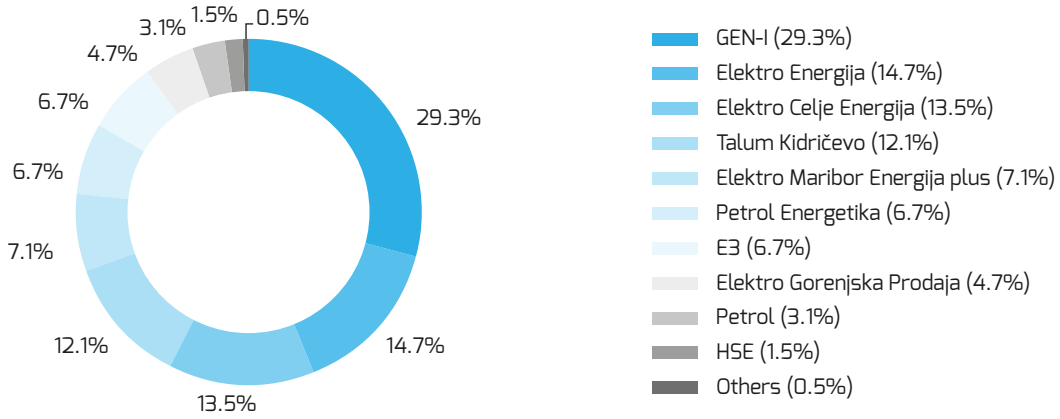


Sources: Companies' data

3.3.3.3 Supply to all business consumers

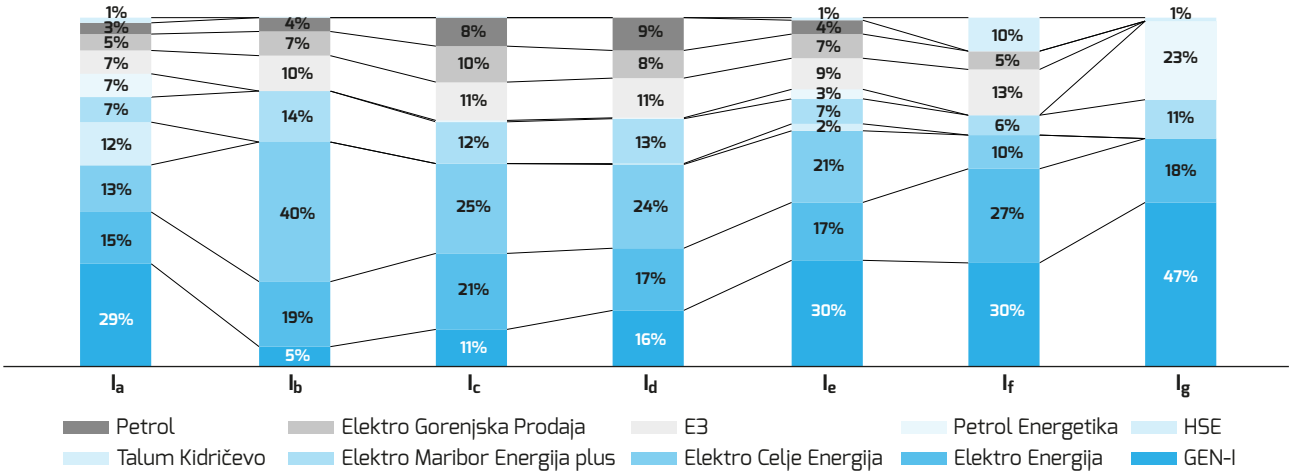
With respect to business consumers in 2013, the largest share had GEN-I with 29.3%. Elektro Energija was second with 14.7%. TALUM Kidričevo supplied electricity to 12.1 of consumers.

Figure 23: Market shares of the suppliers to all business consumers at the end of 2013



Sources: Companies' data

Figure 24: Market shares of suppliers to the business consumer according to the customer group at the end of 2013



Sources: Companies' data

Figure 23 shows the market shares of suppliers to the business consumers according to the consumers' group. Consumers are divided according to annual consumption into following groups:

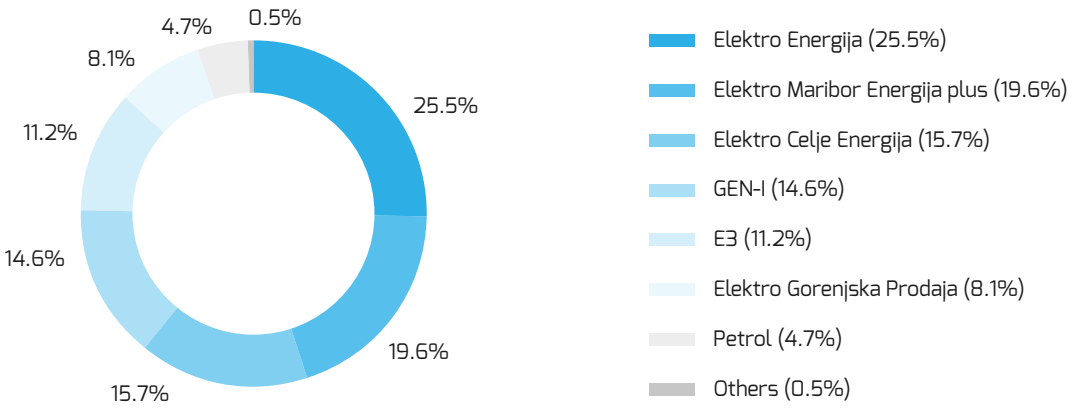
- I_a: annual consumption under 20 MWh
- I_b: annual consumption from 20 MWh to 500 MWh
- I_c: annual consumption from 500 MWh to 2,000 MWh
- I_d: annual consumption from 2,000 MWh to 20,000 MWh
- I_e: annual consumption from 20,000 MWh to 70,000 MWh
- I_f: annual consumption from 70,000 MWh to 150,000 MWh
- I_g: annual consumption over 150,000 MWh

GEN-I had a dominant market share in the groups I_a and I_e- I_g, of which the largest share, 47%, was in group Ig. Figure 24 shows that with the increase in consumption the number of suppliers was decreasing, so there were only four suppliers to the group with the largest consumption (Ig) - GEN-I, Elektro Energija, Elektro Maribor Energija Plus and Petrol Energetika.

3.3.3.4 Supply to the household consumers

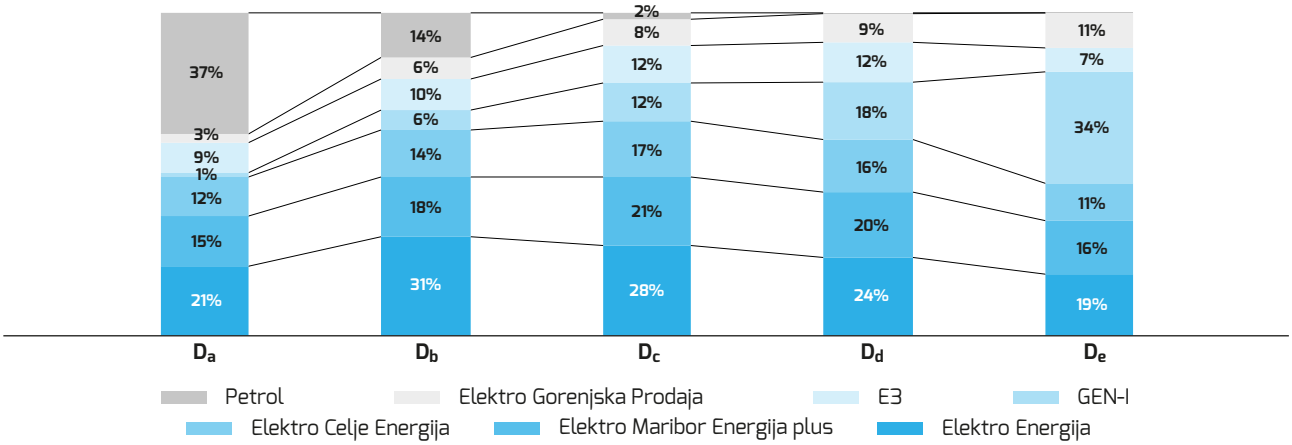
The largest market share between the suppliers to the house hold consumers in 2013 again belonged to Elektro Energija, which supplied electricity to almost one quarter of all households in Slovenia. Other suppliers, which were before the unbundling part of the DSOs, had their market shares at it is shown in Figure 25. GEN-I and Petrol, which entered to the retail market at later stage, had in 2013 already almost 20% of market share.

Figure 25: Market shares of the suppliers to the household consumers at the end of 2013



Sources: Companies' data

Figure 26: Market shares of the suppliers to the household consumers with respect to the consumption group at the end of 2013



Sources: Companies' data

Figure 26 shows the dispersion of market shares of the suppliers to household consumers, which are according to the annual electricity consumption divided into the following groups:

- D_a: annual consumption under 1000 kWh
- D_b: annual consumption from 1,000 kWh to 2,500 kWh
- D_c: annual consumption from 2,500 kWh to 5,000 kWh
- D_d: annual consumption from 5,000 kWh to 15,000 kWh
- D_e: annual consumption from 15,000 kWh

The largest market share in the supply of household consumers with the highest consumption (D_e) had GEN-I, and on the other side, Petrol had the largest share in the group of consumers with the lower annual consumption (group D_a).

3.3.3.5 The degree of competition in the retail market – supply to all end consumers

Table 25 shows the entire retail market, which also includes large end consumers connected to the transmission network.

Table 25: Market shares of the suppliers to all end consumers in Slovenia in 2013

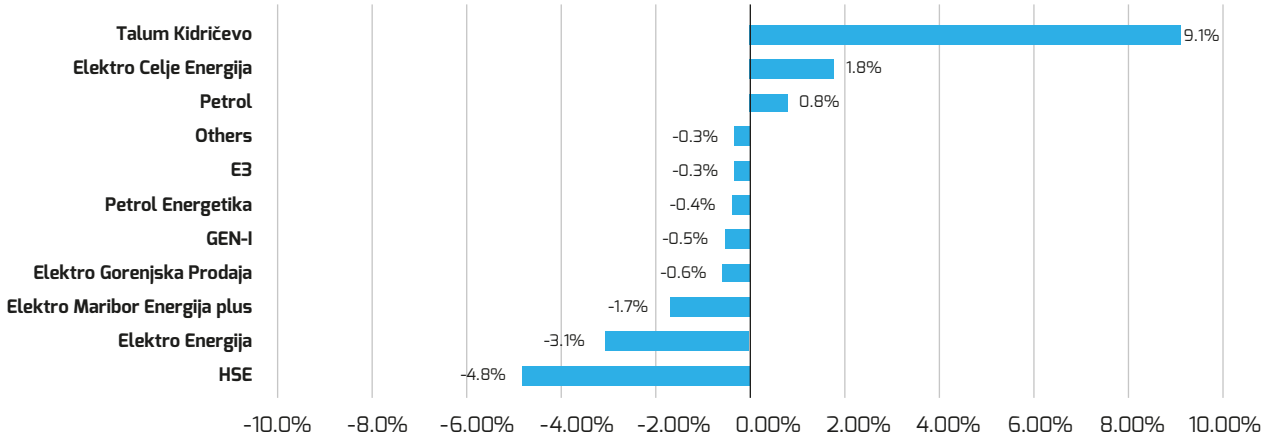
Supplier	Supplied electricity (GWh)	Market share
GEN-I	3,367.4	25.7%
Elektro Energija	2,275.4	17.4%
Elektro Celje Energija	1,838.4	14.0%
Elektro Maribor Energija plus	1,337.3	10.2%
TALUM Kidričevo	1,198.5	9.1%
E3	1,025.3	7.8%
Elektro Gorenjska Prodaja	725.5	5.5%
Petrol Energetika	679.7	5.2%
Petrol	459.4	3.5%
HSE	146.7	1.1%
Others	51.0	0.4%
Total	**13,104.6**	**100.0%**
HHI of suppliers to all end consumers		**1,479**

Sources: Companies' data

A look at the entire market segment, which includes customers on the transmission network, shows medium market concentration, since HHI was below the upper limit of 1800.

Figure 27 shows that the supply of electricity of TALUM Kidričevo is for the first time indicated in its market share, which was in 2013 9.1%. With the exceptions of Elektro Celje Energija and Petrol, all the suppliers in 2013 had a decrease in their market shares (the most HSE, as part of its supply is reflected in the share of TALUM Kidričevo).

Figure 27: Changes to the market shares of the suppliers to all consumers 2013 with respect to 2012



Source: Energy Agency

3.3.3.6 Degree of competition in the retail market – supply to the consumers on the distribution network

Market shares of the suppliers in the retail market to supply consumers on the distribution network are shown in Table 26.

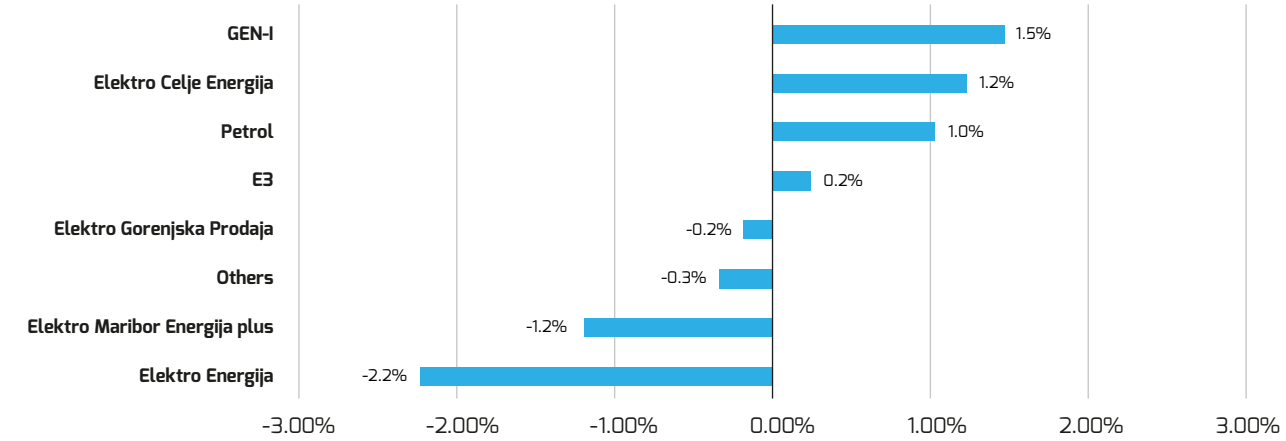
Table 26: Market shares of the suppliers to all consumers on the distribution network in 2013

Supplier	Supplied electricity (GWh)	Market share
GEN-I	2,853.6	27.4%
Elektro Energija	2,275.7	21.8%
Elektro Celje Energija	1,616.3	15.5%
Elektro Maribor Energija plus	1,337.3	12.8%
E3	1,025.4	9.8%
Elektro Gorenjska Prodaja	732.8	7.0%
Petrol	496.9	4.8%
Drugi	80.3	0.8%
Total	**10,418.4**	**100.0%**
HHI of the suppliers to all consumers on the distribution network		**1,802**

Sources: Companies' data

Also in 2013, none of the electricity supply companies had a dominant position, since market shares did not exceed 40%. Despite the dispersion of supply, the concentration was still high, since HHI exceeded 1800.

Figure 28: Changes to the market shares of the suppliers to consumers on the distribution network in 2013 with respect to 2012



Source: Energy Agency

In 2013, GEN-I increased its market share again, for around 1.5 percentage point, and remained the largest supplier in this part of the market. Their market shares strengthened Elektro Celje Energija, Petrol in E3. Market shares of others supplier decreased, as shown in Figure 28.

3.3.3.7 The degree of competition in the retail market – supply to all business consumers

Market shares of the suppliers to the business consumers in 2013 are shown in Table 27.

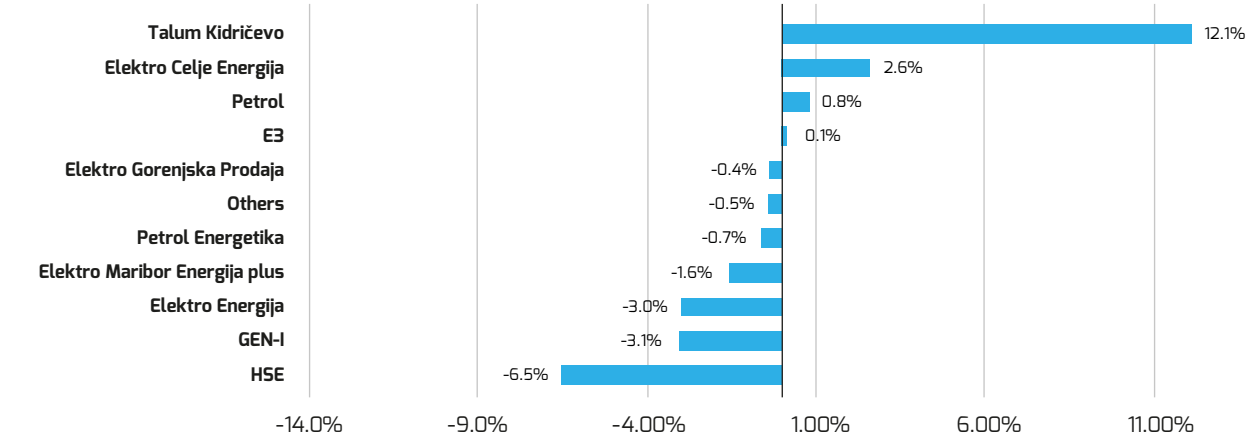
Table 27: Market shares of the suppliers and HHIs with respect to supply to business consumers in 2013

Supplier	Supplied electricity (GWh)	Market share
GEN-I	2,898.1	29.3%
Elektro Energija	1,455.3	14.7%
Elektro Celje Energija	1,333.5	13.5%
TALUM Kidričevo	1,198.5	12.1%
Elektro Maribor Energija plus	706.1	7.1%
Petrol Energetika	665.8	6.7%
E3	665.1	6.7%
Elektro Gorenjska Prodaja	466.6	4.7%
Petrol	307.5	3.1%
HSE	146.7	1.5%
Drugi	48.9	0.5%
Total	**9,892,0**	**100.0%**
HHI of the suppliers to all business consumers		**1,579**

Sources: Companies' data

In 2013, the medium concentration continued in this part of the market, since HHI value was under 1800. The biggest change was related to TALUM Kidričevo, which took over part of the supply from the HSE. The largest market share had GEN-I with 32.4%, despite the fact that in 2012 lost 3% in comparison with the previous year.

Figure 29: Changes to market shares of the suppliers to the business consumers in 2013 with respect to 2012



Source: Energy Agency

3.3.3.8 The degree of competition in the retail market – supply to the household consumers

Market shares of electricity suppliers to household consumers is shown in Table 28.

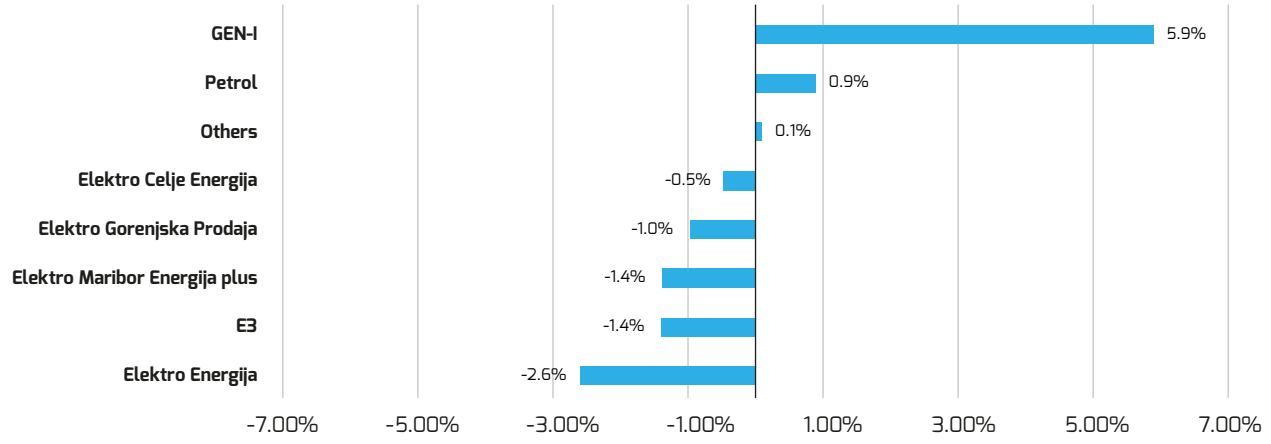
Table 28: Market shares of the suppliers to the household consumers and HHIs in 2013

Supplier	Supplied electricity (GWh)	Market share
Elektro Energija	820.1	25.5%
Elektro Maribor Energija plus	631.2	19.6%
Elektro Celje Energija	504.9	15.7%
GEN-I	469.4	14.6%
E3	360.2	11.2%
Elektro Gorenjska Prodaja	258.9	8.1 %
Petrol	151.9	4.7%
Drugi	16.0	0.5%
Total	**3,212.6**	**100.0%**
HHIs of the suppliers to household consumers		**1,711**

Sources: Companies' data

In the segment of household consumption, the medium market concentration is medium established with the value around 1711. Elektro Energija had the largest share, supplying 25.5% of all household consumers, and the second was Elektro Maribor Energija plus with 20%. Together two suppliers supplied more than half of the household consumers.

Figure 30: Changes to the market shares of the suppliers to the household consumers in 2013 with respect to 2012



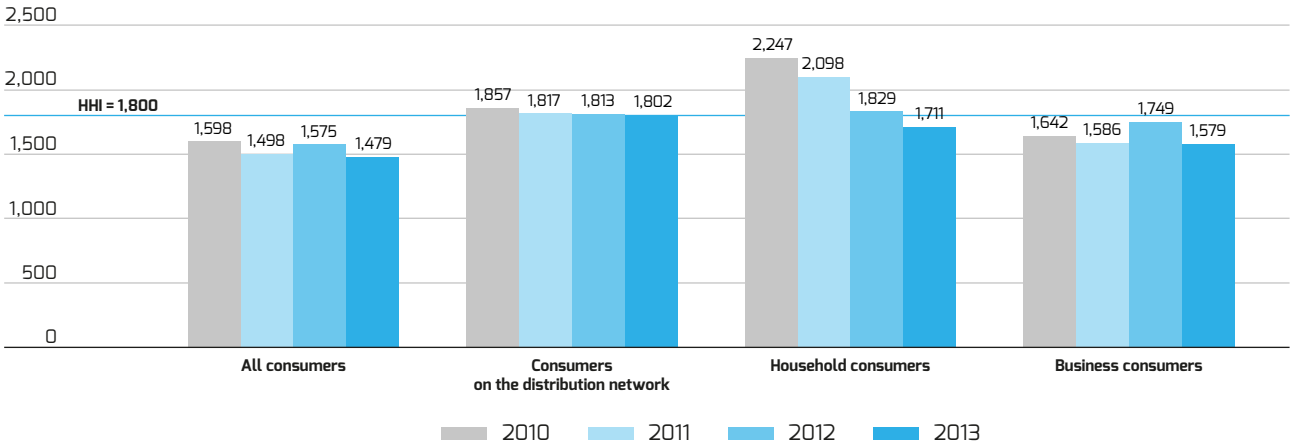
Source: Energy Agency

Figure 30 shows that GEN-I in 2013 again strengthened its market share according to data from 2012 for 5.9%. The company Petrol strengthened its market share for almost one percent. Other suppliers lowered their market shares, the most of them Elektro Energija, that is for 2.6%.

3.3.3.9 The degree of competition in the retail market – trends of the HHIs in the retail market for 2010–2013

Trends of HHIs in the all retail markets during the last four years were negative, which reflect the strengthening of competition between the suppliers. In 2013, in the retail market for business consumers the value of the HHI decreased again after its increase in 2012, as a result of starting the supply TALUM Kidričevo. But in general, the electricity retail market in Slovenia in 2013 reflected the medium concentration since the HHI values were around 1800 and even less.

Figure 31: Trends of the HHIs values in retail market for 2010-2013



Sources: Companies' data

3.3.3.10 Comparison of electricity prices for typical industrial consumers in the retail market

The price of electricity supplied includes:

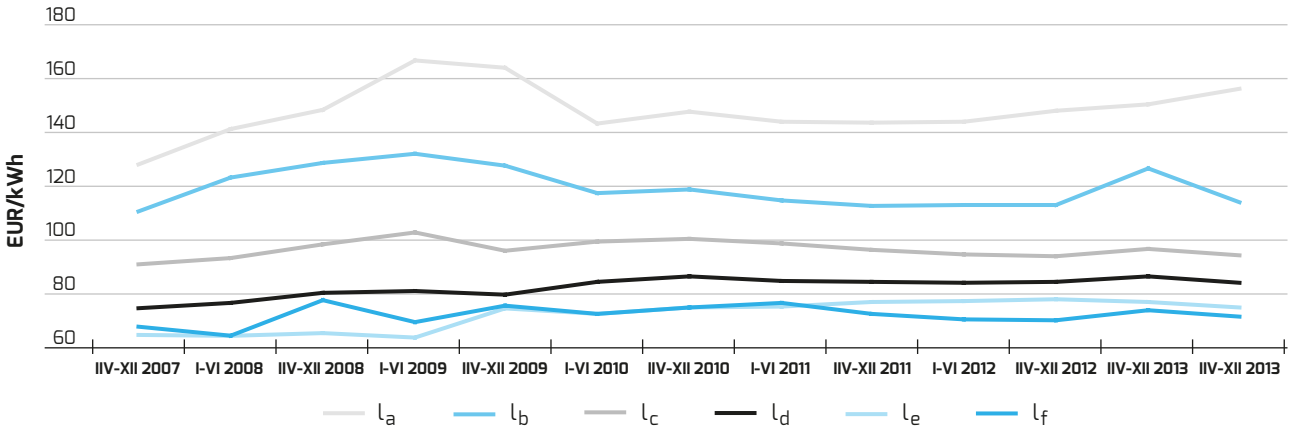
- the energy price,
- the network charge for the transmission and distribution network and ancillary services,
- supplement to the network charge for covering the costs of recording the contracts on a regulated market and for the operation of the Energy Agency,
- the contribution to supporting electricity production from domestic energy sources, RES and CHP,
- the contribution to the provision of security the supply by using domestic primary energy sources,
- the contribution to supporting energy efficiency programmes,
- the excise duty,
- the value added tax.

The average electricity price for industrial customers, without VAT, in the second half of 2013 in Slovenia amounted to 93.8 EUR/MWh.

Figure 32 shows the trends of the electricity prices for typical industrial customers in Slovenia for 2007–2013. Standards consumers groups according to the new Eurostat methodology are used:

Ia – annual consumption <20 MWh
Ib – annual consumption 20 do <500 MWh
Ic – annual consumption 500 do <2,000 MWh
Id – annual consumption 2, 000 do <20,000 MWh
Ie – annual consumption 20,000 do <70,000 MWh
If – annual consumption 70,000 do <=150,000 MWh

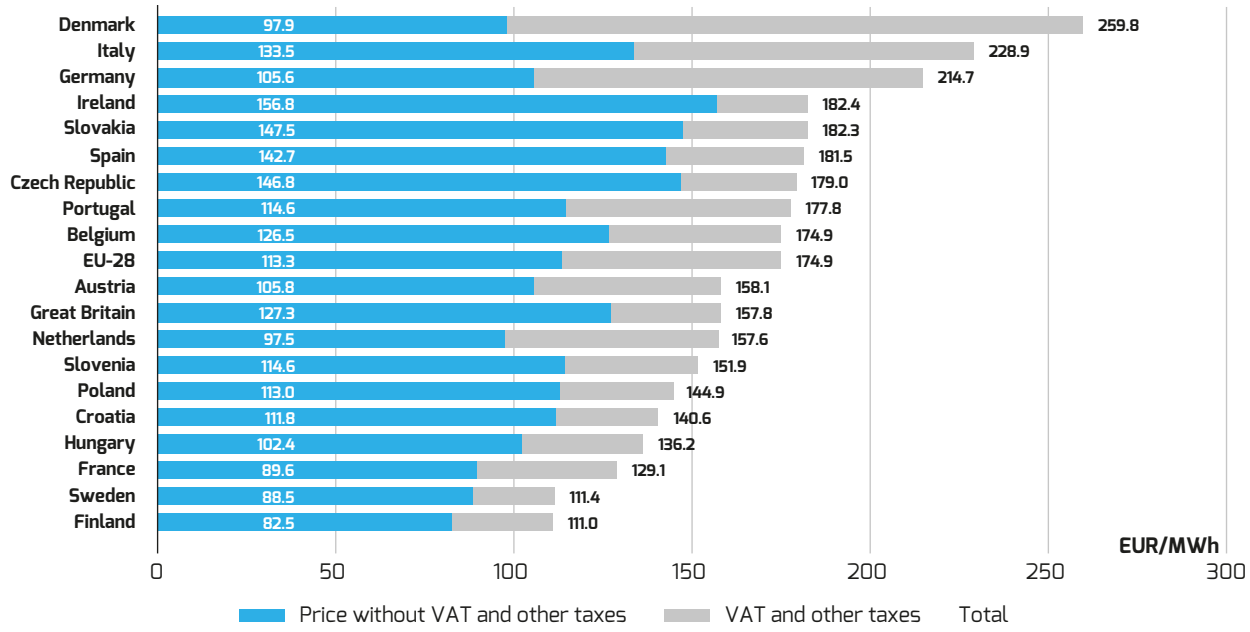
Figure 32: Trends of the electricity prices for typical industrial consumers in Slovenia for 2007–2013



Source: Statistical Office of the Republic of Slovenia

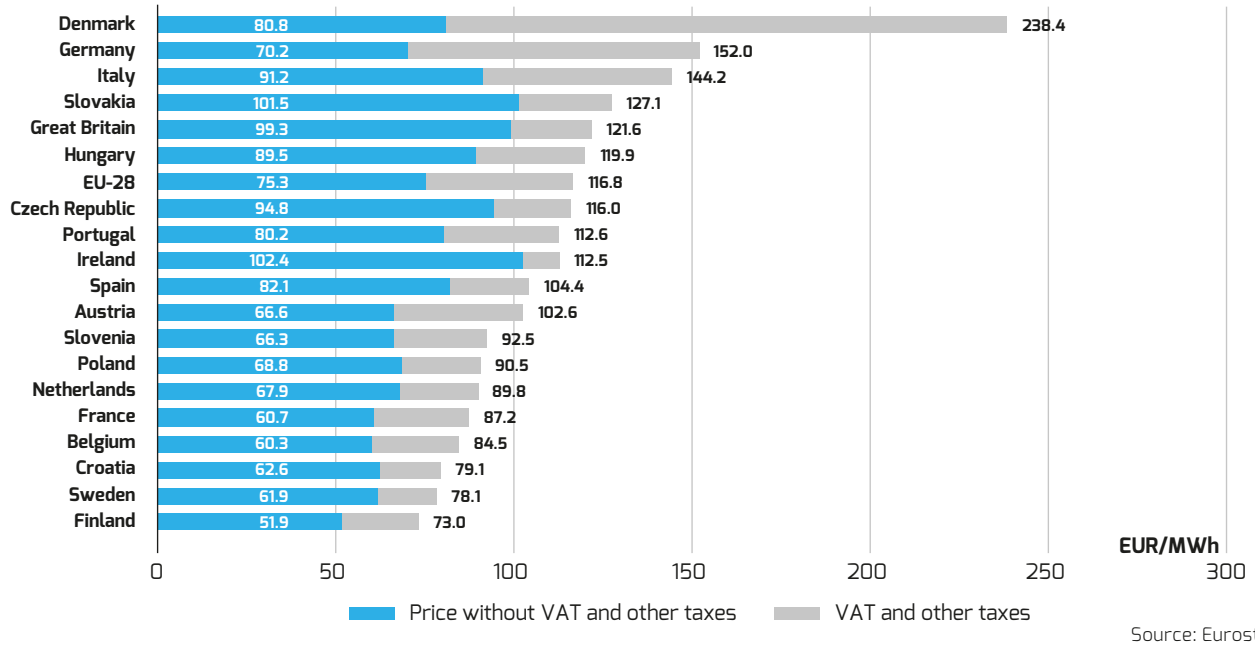
In the figures following the comparison of electricity prices in some EU countries for the first half of 2013, two typical industrial consumers selected in line with the new methodology Eurostat are presented. Final prices are shown, in which for Slovenia the price for energy, the use-of-network price, excise duties, contributions and VAT are included.

Figure 33: Comparison of electricity prices for a typical industrial consumer with an annual consumption of 20 000 to < 70 000 MWh in the EU countries and in Slovenia for the first half of 2013



Source: Eurostat

Figure 34: Comparison of electricity prices for a typical industrial consumer with an annual consumption of 20 to 70 GWh in the EU and Slovenia for the first half of 2013

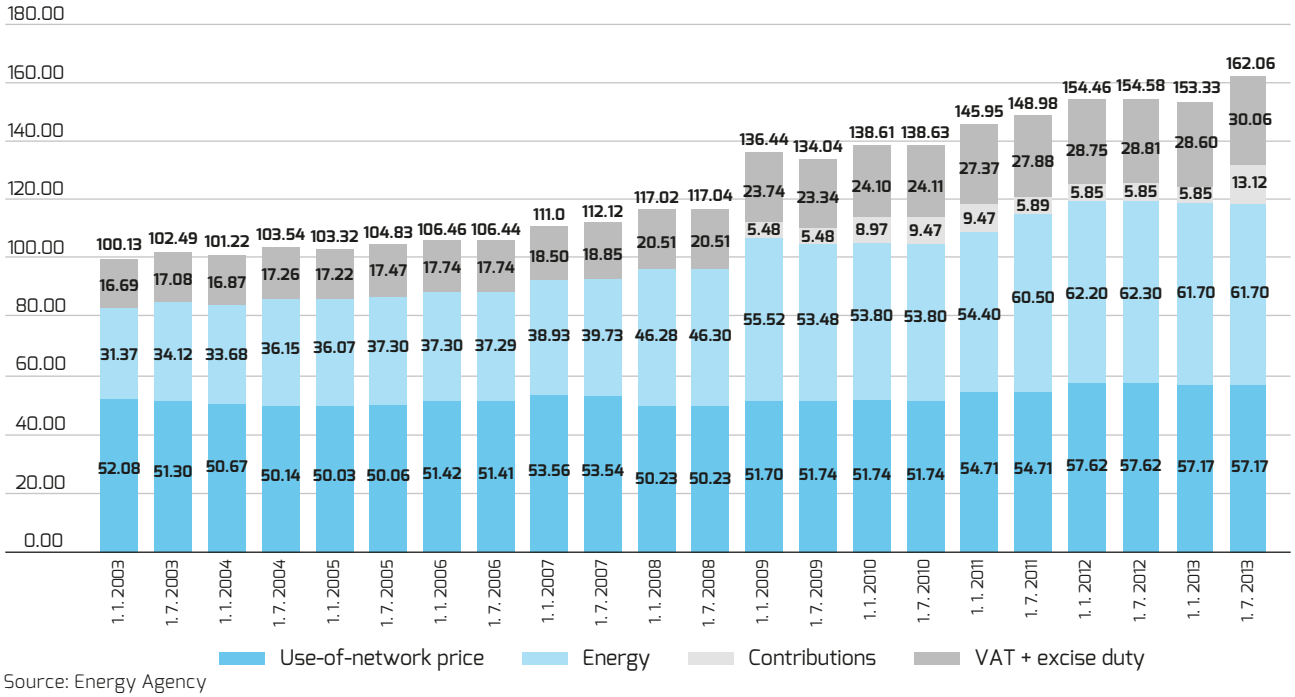


Source: Eurostat

3.3.3.10.1 Comparing electricity prices in the retail market for typical household consumer

Households in Slovenia are free to choose their electricity suppliers since 1 July 2007. Electricity suppliers offer different packages that take into account the amount of electricity consumption and the ways of electricity use, and also whether the electricity is produced from RES.

Figure 35: Trend of the final electricity price for a typical household consumer (D_c – 3,500 kWh per year) in EUR/MWh

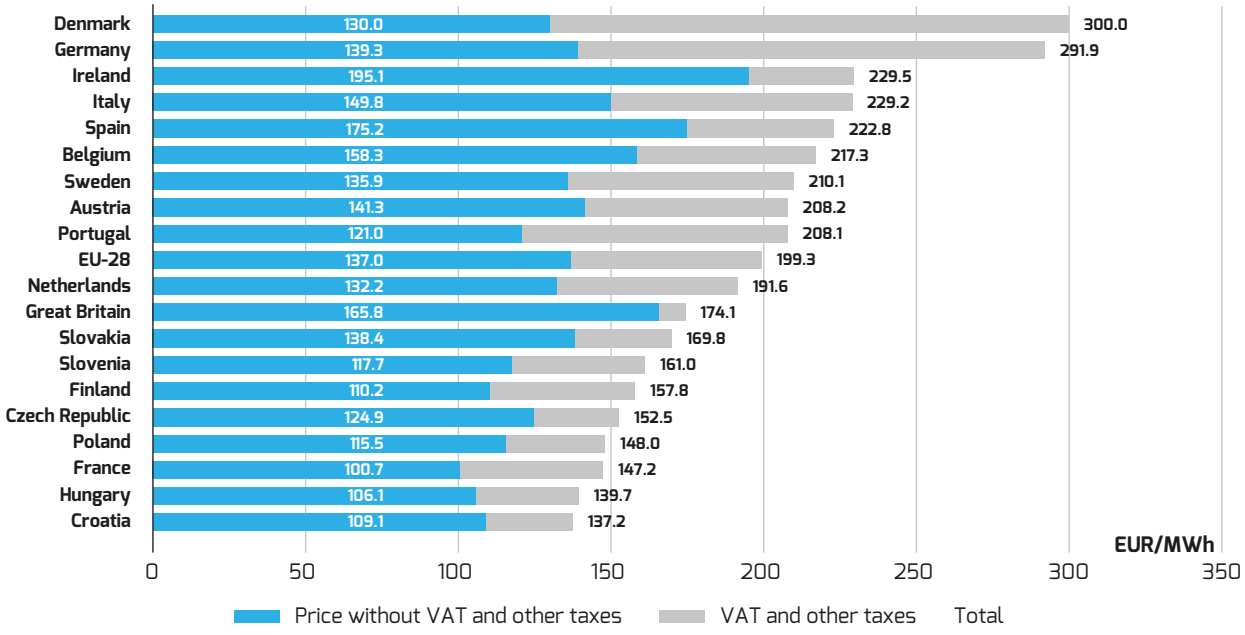


Source: Energy Agency

Until 1 July 2007, the electricity price was being set by the government. During that time, the selling price, which included the use-of-network price, did not entirely cover the costs of energy prices in the wholesale market. Therefore, after the market opening in 2007, the price for household consumers increased by almost 19% per cent. Slightly larger increase in the final electricity price for household consumers was in 2009, when the price increased primarily on behalf of the contributions intended to support the production of electricity from domestic sources, RES and CHP, and to implement the programmes to improve energy efficiency. The electricity price for households increased in 2013 again, mainly on account of increase in contribution for RES and CHP, even if the shares of the use-of-the network price and energy price were lowered in comparison with 2012.

The comparison of electricity prices in some of the EU countries for the first half of 2013 for typical household consumers selected according to the new Eurostat methodology is shown in continuation of the report. Final prices, which include the price for energy, the use-of-network price, excise duties, contributions and VAT, are presented.

Figure 36: Comparison of the final electricity prices for a typical household consumer with an annual consumption of 2500 to 5000 kWh in EU and Slovenia for the first half of 2013



Source: Eurostat

The average retail electricity price for household in Slovenia in the first half of 2013 amounted to 161.0 EUR/MWh. International comparison is due to the availability of data of other Member States at the time of drafting this report possible only for the first half of 2013. During this period the final price of electricity for households with an annual consumption of 2500 do 5000 kWh and for industrial consumers amounted to 81% of the average price in the EU (EU-28) (Statistical Office of the Republic of Slovenia, 4Q of 2013).

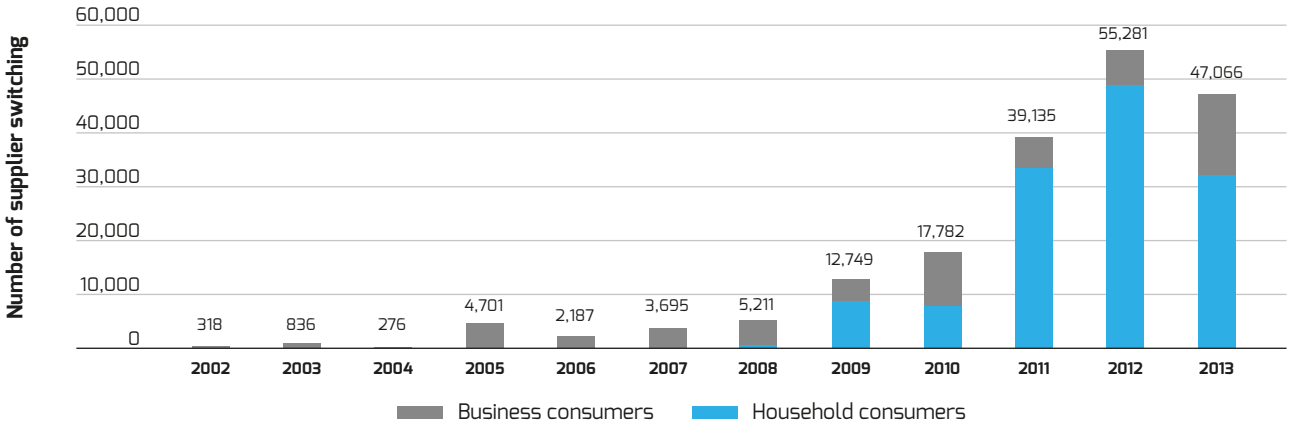
3.3.3.11 Supplier switching

In the year 2013, 47,066 consumers switched their supplier, of which the vast majority (32,068) were the households. As we can see from the Figure 37, in 2013, the first decrease in the number of supplier switching is recorded from increasing trend in the period 2006-2012.

As in the previous years, most of business consumers decided to switch supplier at the beginning of the year when the contracts usually expire. Household consumers switched supplier mainly in the beginning of 2013, and also in March, July and August 2013.

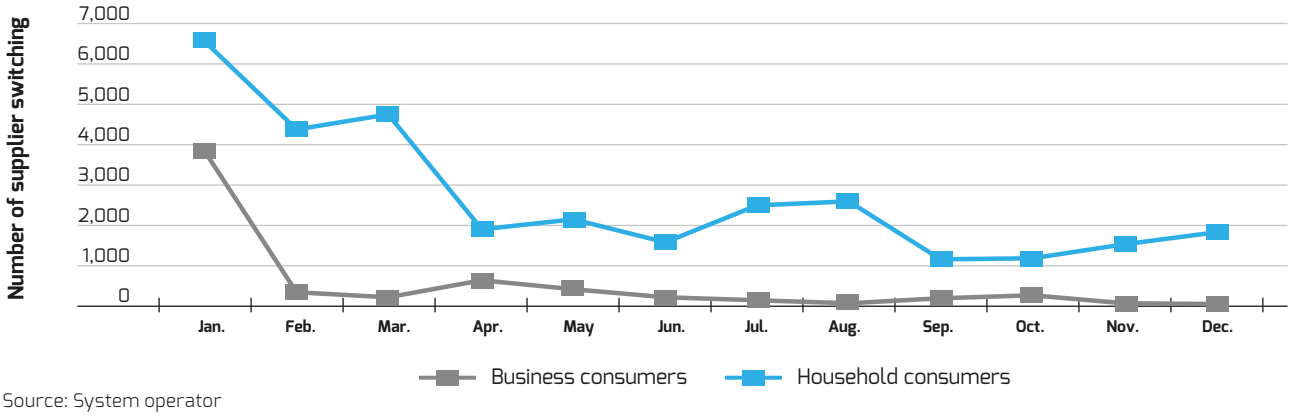
Figure 39 shows dynamics of supplier switching with respect to the amount of the supplied energy. There is a close correlation between the amount of energy and number of switches, especially for the household consumers. For business and household consumers the amounts are much higher at the beginning of the year, and decreasing during the year.

Figure 37: Number of supplier switching for 2002–2013



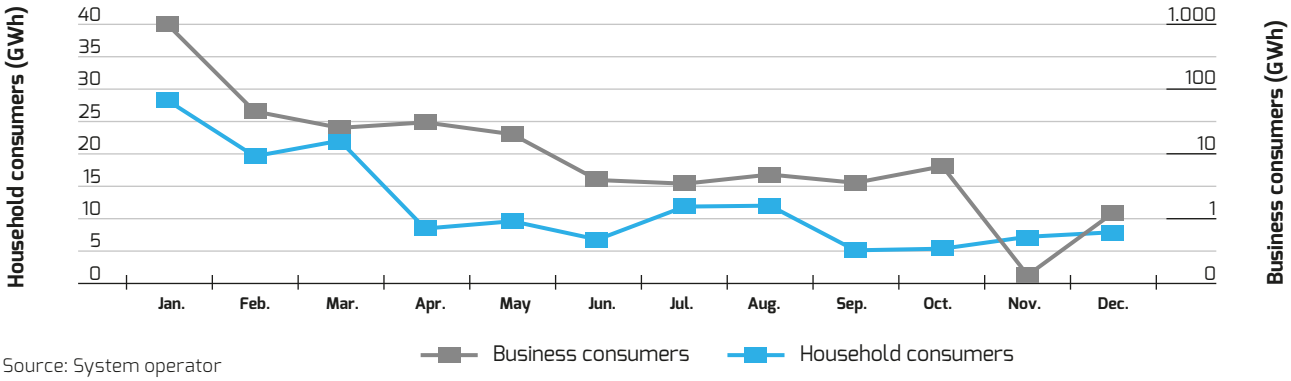
Source: SODO

Figure 38: Trend of supplier switching in 2013 with respect to the type of consumption



Source: System operator

Figure 39: Dynamics of supplier switching with respect to the amount of electricity in 2013



Source: System operator

3.3.3.12 Web application – Comparison of suppliers

In order to facilitate price transparency in the retail electricity market (mainly for household consumers and small businesses) the Energy Agency on its web page offers the web application called the Comparison of Suppliers, which allows calculating and comparing the amounts of consumed electricity for all the offers entered in the application made by suppliers. Application provides calculations at the monthly and annual level and all the individual elements of the bill to be paid:

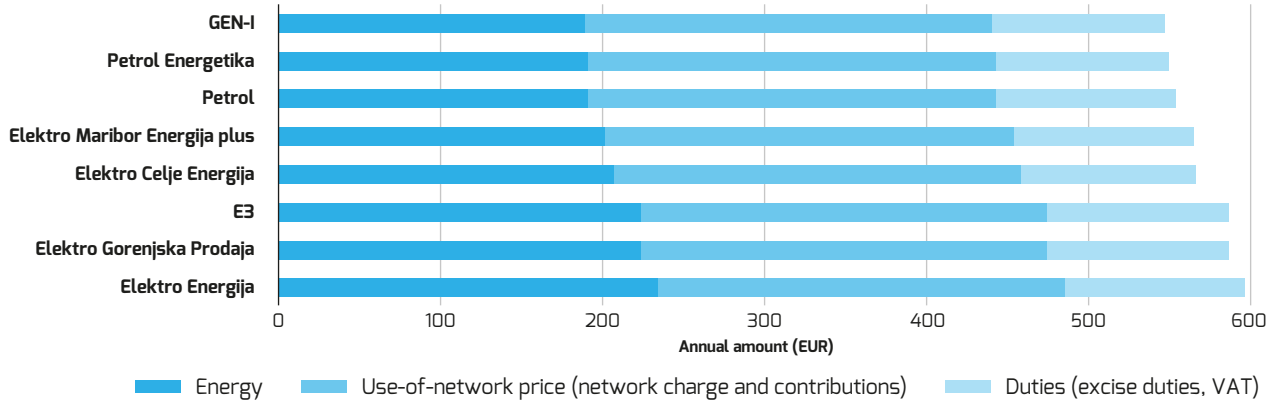
- energy
- network charge with contributions
- contributions according to the EA
- excise duties
- VAT

Standard consumers groups are defined by the annual consumption of electricity:

- D_c: connected power 7 kW, high tariff consumption: 2,200 KWh; low tariff 1,300 kWh
- D_d: connected power 7 kW, high tariff consumption: 5,000 KWh; low tariff 2,500 kWh
- D_e: connected power 7 kW, high tariff consumption: 5,000 KWh; low tariff 15,000 kWh

Figure 40 shows the comparison between the offers. Amounts represent the annual costs of a household in standard consumer group D_c, the calculation takes into account the best offer (value for money) of each supplier (other than a conditional offer):

Figure 40: Comparison of the best offers for the supplied electricity for the group D_c

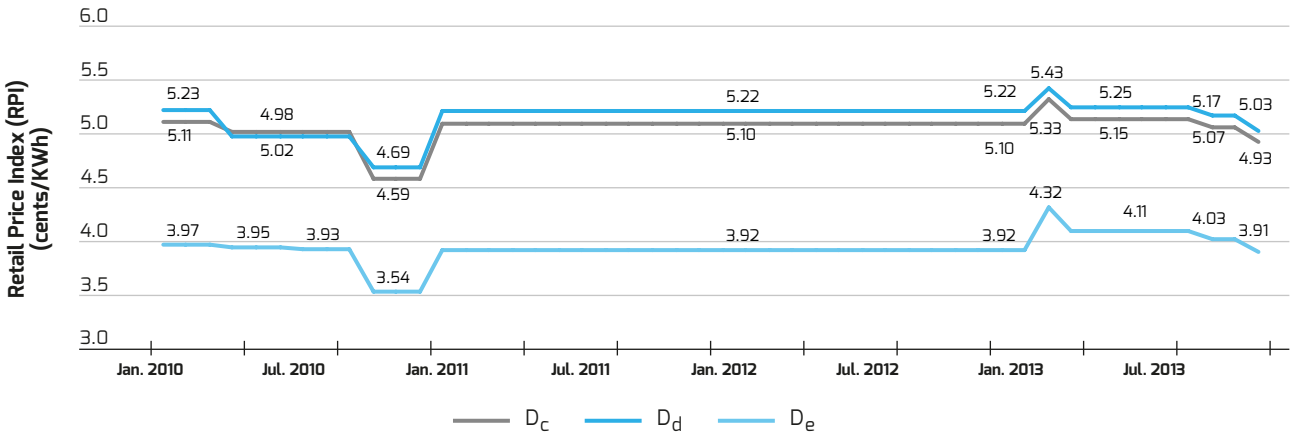


Source: Energy Agency, December 2013

For the database of the web application, the Energy Agency on its website periodically prepares annual reports on electricity prices and RPI, which represents the lowest price for electricity of all valid offers of suppliers in a given period (except for conditional offers).

Figure 41 shows the trends of the retail price index (RPI) for standard customers groups D_c, D_d and D_e in period 2010–2013. After negative trend in 2010, in the beginning of 2011 trends strengthened again, and in 2013, after a small increase started to steadily decline till the end of the year.

Figure 41: Retail market indices for standard consumers groups D_c, D_d and D_e for 2010–2013



Source: Energy Agency

3.3.4 Recommendations on supply prices

Concurrently with market opening in July 2007 the Energy Agency offered to the public a web application Comparison of suppliers, with which we monitor the prices for household consumers (and partially for small business consumers); the application allows the comparison of offers for the supply. From the collected data the Energy Agency on the regular basis publishes the analysis the final amount for the consumed electricity, the price for energy and retail price index (RPI). The application is a tool for Energy Agency's monitoring of retail electricity market for households, by which level and price changes are regularly reviewed.

The Energy Agency also takes care that the price for the last resort supply is in accordance with Decree on the method for the implementation of public service obligation relating to the electricity distribution system operator, and public service obligation relating to the electricity supply to tariff costumers. This regulation provides that the price for the last resort supply should not be for more than 25% higher than the market price for the supply of comparable customer. Electricity prices for the last resort supply and for the supply of vulnerable customers are released to the public.

3.3.5 Measures taken to prevent abuses and to promote competition

In the wholesale market the same rules apply to electricity as to other commodities, mainly with respect to preventing the restriction of competition and any abuse of a dominant position. The market transparency is provided for by publishing the relevant information, which is mostly available on the websites of individual market participants. The companies providing a public service also have to observe the prescribed mode of publishing this information, as required by the current general acts. Most of the information relating to the wholesale market is maintained and disclosed by ELES, Borzen and BSP Southpool.

In the retail market, the Energy Agency also in 2013 made a significant contribution to the transparency of prices and offers for household consumers and, thus, contributed to the functioning of competition. For this purpose, it delivered web applications for the comparison of offers and checking electricity bill. Moreover, it provided e-services for monitoring individual offers by

sending automatic messages when offers changed. It also published monthly report on the supply of electricity and retail market index for household consumers. In accordance with the provisions of the Third Energy Package the Energy Agency actively contributed to the unification of data exchange for the most important market activities. It had been active in the section IPET (at Chambers of Commerce and Industry of Slovenia), where we actively work on solving the problems of current projects on information exchange in the electricity market.

In 2013, the Slovenian Competition Protection Agency did not adopt any decision.

3.4 Reliability of the electricity supply

The reliability of the electricity supply to the customers depends on the capacity of the power system and the sufficiency of production sources and energy. We can speak of the two functional aspects of the security of supply - sufficiency of production sources and the security of the network. The sufficiency describes the ability of all the available production sources to meet the demand for electricity in any time, taking into account planned stops and unplanned outages of the system. In a broader sense, the sufficiency means a sufficient reserve of affordable raw materials and resources for production of electricity.

Network security is the ability of the system to withstand disturbances such as outages of elements, failures, such as short circuits. In order to ensure the network security, in Slovenia the n-1 criterion is used for the transmission network, and for higher levels of the distribution networks. By using n-1 criteria it is guaranteed that in case of a failure of any component of the system, overloading, limits exceeding or supply interruptions are avoided.

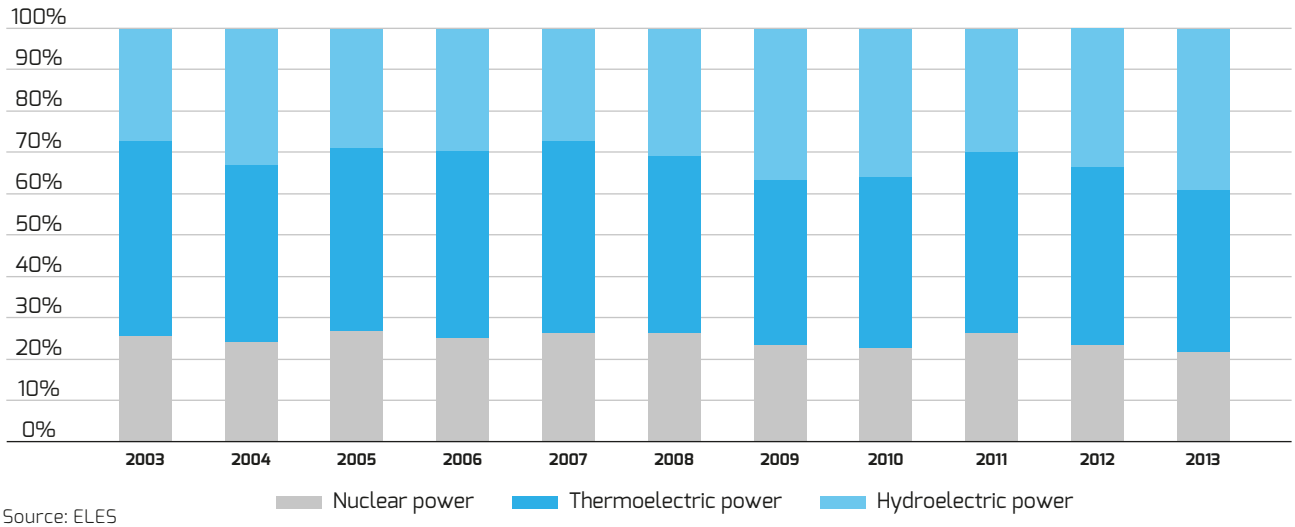
3.4.1 Monitoring balance of supply and demand

Amount of electricity, delivered to the transmission network, in 2013 increased for 3.7% in comparison with the previous year, taking into account half of the production of the Krško NPP. Due to favourable hydrological conditions in 2013 hydropower plants delivered 20% more electricity to the transmission system than in 2012. Thermo power plants and NPP in 2013 delivered less electricity than the year before; less electricity from the NPP was the result of a slightly longer annual planned outage in October and first half of November in 2013.

The structure of the delivered electricity to the transmission network has been slowly changing over the years, in a favour of the production in HPPs as a result of favourable hydrological conditions and new production facilities on the river Sava (lower part). HPPs and TPPs delivered 39% of electricity, and NPP 22% (half of its production considered).

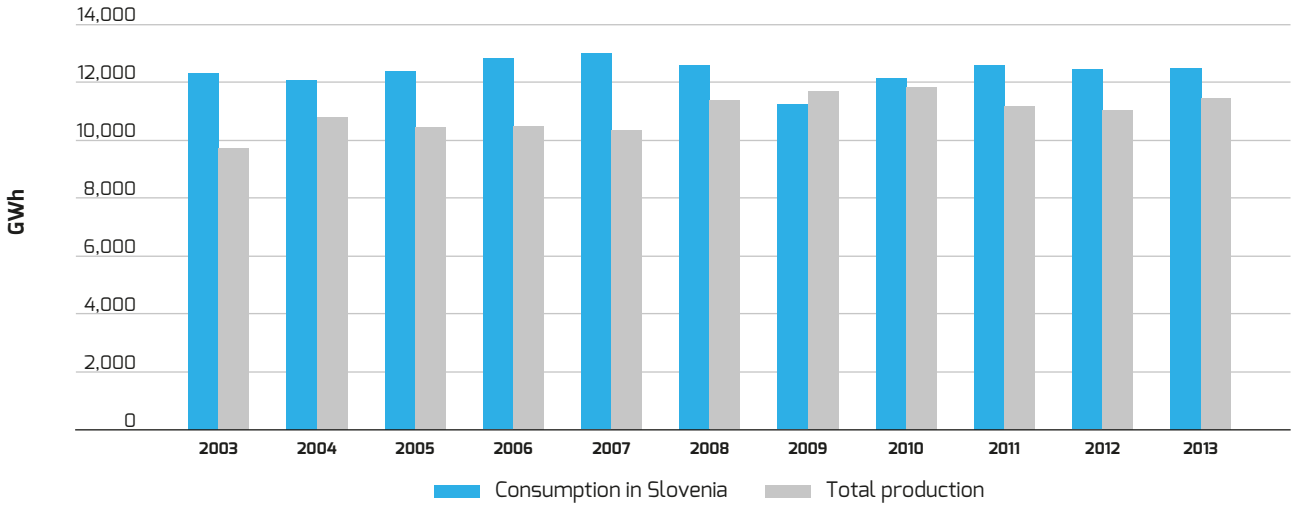
In 2013, the consumption from the transmission system increased for almost 0.4%, mainly because of 56% higher consumption of PSPP Avče in comparison with the previous year. The consumption of direct consumers increased by 0.7%, and the distributions took over even 1.1% of electricity than the year before.

Figure 42: Structure of electricity production on the transmission network for 2003–2013



Source: ELES

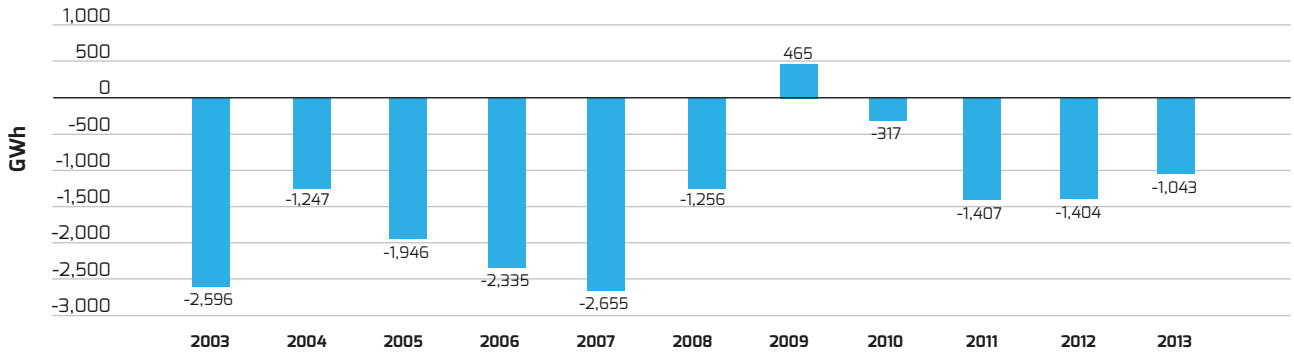
Figure 43: Production and consumption of electricity on the transmission network for 2003–2013



Source: ELES

Compliance between production and consumption of electricity is shown in Figures 43 and 44. Only in 2009, when electricity consumption decreased due to economic crisis, the surplus of production over consumption was recorded. Already in 2010, there was a deficit in electricity production, which in following years had been increasing and somehow stabilised. Stagnation in consumption and slightly higher electricity production resulted in better compliance between production and consumption in comparison with the years before the economic crisis.

Figure 44: Surpluses and deficits of electricity on the transmission network for 2003–2013



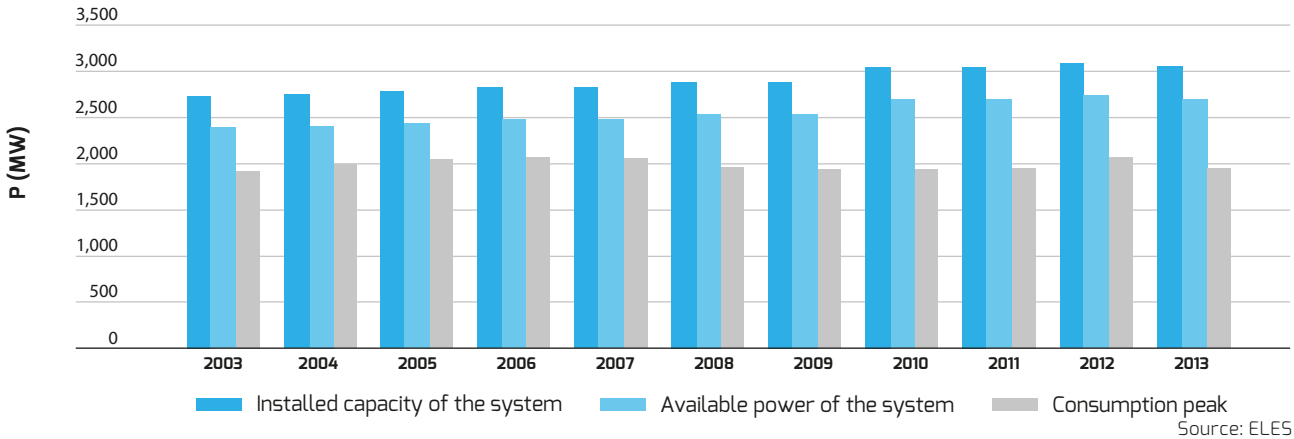
Source: ELES

Peak load, this is the maximum hourly average load in the year, after several years of consecutive growth, in 2013 fell to 1944 MW, which was 6% reduction compared to 2012. The maximum hourly value of the delivered electricity in 2013 was recorded on 13 February in 19th hours of the day. In the past ten years, peak loads appeared only in the evenings during winter months.

Figure 45 shows peak consumptions, installed capacity of production facilities and the power available for the Slovenian market for 2003–2013. The difference between the installed capacity of the production facilities and actual available power represents one half of the power from the Krško NPP, which belongs to Croatia, in line with Article 6 of the Agreement between the Government of the Republic of Slovenia and the Government of the Republic of Croatia Regarding the Status and Other Legal Issues Relating to the Investments in the Krško Nuclear Power Plant, its Exploitation and its Disassembly.

In 2013, no new production facility was connected to the transmission system, and at the same time the power of Block 3 in TPP Šoštanj was reduced from 50 MW to 25 MW. Therefore, the installed capacity on the transmission system decreased by 25 MW compared to 2012. The Figure 45 shows that the Slovenian production system fully covers the needs for power.

Figure 45: Installed capacity of production facilities, the power available for the Slovenian market, and the peak consumptions for 2003–2013



Source: ELES

3.4.2 Monitoring investment in production capacities in relation to the security of supply

The TSO for the electricity network prepared a TYNDP for the transmission network in Slovenia from 2013 to 2022. This plan includes expected trends of final electricity consumption, consumption from the transmission network, and peak consumption for the next decade. Final electricity consumption is estimated based on various assumed rates of economic growth, demographic trends and energy policy. On the basis of planning of final consumption, estimation on consumption of electricity from the transmission network was prepared. Peak-power consumption of the transmission network was determined as a function of final consumption and consumption on the transmission network. The plan also includes scenarios for covering consumption with production facilities and the expected changes in production facilities connected to the transmission network.

Table 29: Changes to the production facilities on the transmission network

	Installed capacity (MW)	Expected year of change
Hydroelectric power plants		
Brežice	56	2016
Mokrice	32	2017
Moste 2, 3	48	2017
Učja	34	2018
Suhadol	41	2018
PSPP Kozjak	403	2018
Hrastje Mota	20	2019
Trbovlje	35	2020
Zadlaščica II	5	2021
Renke	36	2022
Wind-powered plants		
PSPP Avče	10	2015
Thermoelectric power plants		
TEŠ block 3	-50	2014
TEŠ block 4	-248	2014
TEŠ block 6	545	2015
TET PB 1+2	-58	2013
TET PPE	282	2015
TEB PB1	-21	2016
TEB PB2	-21	2016
TEB PB3	-21	2016
TEB PE VI-IX	80	2015
TE-TOL Block 1	-39	2020
TE-TOL Block 2	-29	2016
TE-TOL Block 4 PPE1	117	2016
Nuclear power plant		
JEK 2	1,100	2022

Source: ELES

Table 29 shows changes to be made by the Slovenian electricity producers as expected in the development plan for the transmission network. The positive power values in the second column indicate new production facilities or a renovation of the existing facility, where an increase in the capacity is planned. The negative values indicate closures of the concerned units. We should mentioned the discrepancy between the intended plan to shut down the production facilities – Block 3 in TPP Šoštanj, its power was already reduced for 25 MW in 2013, and gas blocks PB 1+2 in TPP Trbovlje; namely the production facilities in 2013 continued to operate.

3.4.3 Measures to cover peak demand and shortages of electricity

In 2013, the total amount of undelivered electricity to the transmission network amounted to 384.9 MWh, which was significantly lower than the year before, when it was 971.8 MWh.

The largest share of undelivered electricity, 259.1 MWh, was the consequence of strong wind in Primorska Region in November. Because of additional load of the conductors 49.3 MWh of electricity was unsupplied, while failure of cathode conductor in June in Primorska caused that 32.2 MWh of electricity was not delivered. Other causes for undelivered electricity in 2013 were work-related accident, lightning, falling trees, storms and unknown causes.

Despite the fact that in 2013 domestic sources for electricity production were not entirely sufficient to cover Slovenian electricity demand, the supply was never interrupted as a result of shortage of production sources.

3.5 The protection of electricity consumers and dispute settlement

3.5.1 The protection of electricity consumers

The household consumers of electricity buy energy as individuals and use it for their own domestic use. For this reason, their rights are protected with the regulations regulating the energy market and also with Consumer Protection Act.

The companies and other organizations providing public service and commodities to the customers in Slovenia are obliged to ensure a regular and high-quality provision of services, and strive to appropriately develop and improve the service quality.

Household consumers have, as active participants in the market, the following rights:

- right to choose the supplier
- right to enter into supply contract
- right to a reliable and quality supply
- right to be informed
- right to transparent price and billing
- right to legal certainty

Each household consumer who connects a facility to the distribution network has the right to freely choose the electricity supplier. Household consumer can, without any reason and without any costs, switch the supplier. Switching is carried out by SODO on the first day of the month, if the complete application for switching was registered at SODO by the tenth day of the preceding month.

On the basis of the General Conditions for the Supply and Consumption of Electricity from the Distribution Network, a supplier has to inform a household customer, prior to signing a supply contract, about the contractual terms and conditions. In addition, a household customer has to be informed, in due time, about any intended change to the contractual terms and conditions (above all, about a price increase) and about the right to terminate the contract. If the fixed term contract on the supply is concluded, a household customer has to be given a written notice about the consequences of a termination 30 days before the termination of a contract.

A household consumer has the right to compensation for the damage caused by unreasonable or unlawful behaviour of the system operator or market organizer in the following cases:

- if the electricity DSO interrupted, or stopped electricity supply without due cause,
- if a supply interruption lasted for an unreasonably long period,
- if the electricity quality does not meet the current standards, or the contractually agreed value,
- if another user has been causing disturbances,
- if by the fault of the electricity DSO a consumer could not switch a supplier.

3.5.2 The protection of vulnerable consumers

The protection of vulnerable customers is one of the most important forms of consumer protection, and it is regulated by the EA. The electricity DSO shall not cut off power or restrict supply to a vulnerable consumer below the quantity or power that is absolutely necessary in view of the circumstances in order not to jeopardise life and health of the consumer and persons living in his household. The supply to vulnerable consumers is called emergency supply, and it is carried out by SODO. The latter also carries out the last-resort supply to the consumers whose supply contracts were terminated because of the insolvency or illiquidity of the supplier. SODO must inform customers on the conditions for the provision of both types of supply. The last-resort supply has a limited duration, aimed at preventing a situation in which a consumer could remain without an energy supply because of the above reasons on the supplier's part. It can last up to 60 days and can be extended up to the request of the consumer. The prices for the last-resort supply must be publicly available and higher than the market price for the supply to a comparable consumer, but not more than 25%. This price is determined by SODO, or, if SODO does not do that, by the Energy Agency. In 2013, no consumer was provided by the last-resort supply.

The eligibility for the supply of vulnerable consumers is assessed by SODO, on the basis of evidences submitted (a decision of the competent social service on the financial situation of the household, and medical examination that the person living with the consumer uses medical devices, which for its functioning need electricity and disconnection of electricity would threatened the person's life.

All the supplier's costs arising from such a situation are covered by the revenues from the use-of-network price.

SODO is obliged to provide quality power supply. If the voltage quality is not as good as agreed upon, household customer has the right to request a contract on a non-standard quality. Conditions and integral parts of the contract are determined by the System operating instructions for the distribution network and General Conditions for the Supply and Consumption of electricity from the distribution system.

Household consumers have the right to be informed of their rights in an understandable way about the prices, and that the prices can be compared. For this purpose the web application Comparison of Suppliers can be used.

The supplier is obliged to issue a bill, which has to be transparent and comprehensible. The bill has to disclose shares of production resources in the overall structure of electricity, information on the impact of the existing structure of production on environment (carbon dioxide emissions CO_2, and problems relating to the nuclear waste.)

In addition, the suppliers have to provide websites, where one can get information on the environmental impact, in terms at least CO_2 emissions and the radioactive waste resulting from the electricity produced in the overall fuel mix is publicly available. The suppliers of electricity have to, at least once a year, informed customers about their individual annual consumption.

In 2013, the electricity suppliers were publishing the electricity prices for household on their websites. These publications included prices for different products or the electricity supply packages for households.

When SODO wants temporarily interrupt the supply, household consumers have to be informed on time in writing or in by any other appropriate way. When interruption of supply is related to a wider range of customers, it is sufficient that SODO at least 48 hours in advance announced the interruption by the mass media.

If household consumers do not meet their obligations, SODO can stop the supply prior written notice and set the deadlines for the fulfilment of their obligations. The period should not be shorter than 8 days.

In 2013, due to unpaid electricity bills in Slovenia the supply was stopped to 6877 household consumers. This number is for 0.03 percentage point higher than in 2012, when the supply was stopped to 6577 household consumers, and for 0.15 percentage point lower than in 2011, when the supply was stopped to 8037 household consumers.

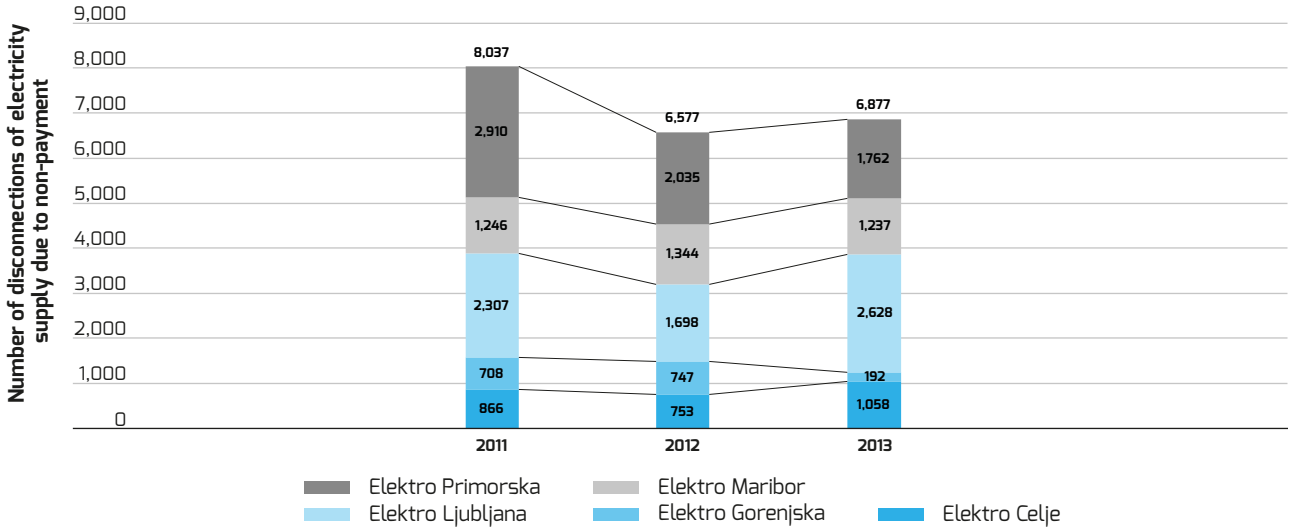
Table 30 and Figure 46 shows the number of disconnections due to non-payment in the period from 2011-2013. Numbers are shown for individual supply areas, covered by the distribution companies. In 2013, in the area of Elektro Gorenjska d.d, there were 192 disconnections, which was the lowest number, and the highest was in the area of Elektro Ljubljana d.d, namely 2628. In comparison with 2012 and 2011, the number of disconnections in the area of Elektro Gorenjska d.d. significantly decreased – from 707 in 2011 and 747 in 2012 to 192 in 2013. In other areas, such fluctuations in the number of disconnections are not detected.

Table 30: Number of disconnections of electricity supply due to non-payment of electricity bills for 2011–2013 (household consumers)

	2011	2012	2013
Elektro Celje	866	753	1.058
Elektro Gorenjska	708	747	192
Elektro Ljubljana	2,307	1.698	2.628
Elektro Maribor	1,246	1.344	1.237
Elektro Primorska	2,910	2.035	1.762
Total	**8,037**	**6,577**	**6,877**
Number of all household consumers	821,328	825,198	827,902
Shares of disconnections for non-payment	**0.98%**	**0.80%**	**0.83%**

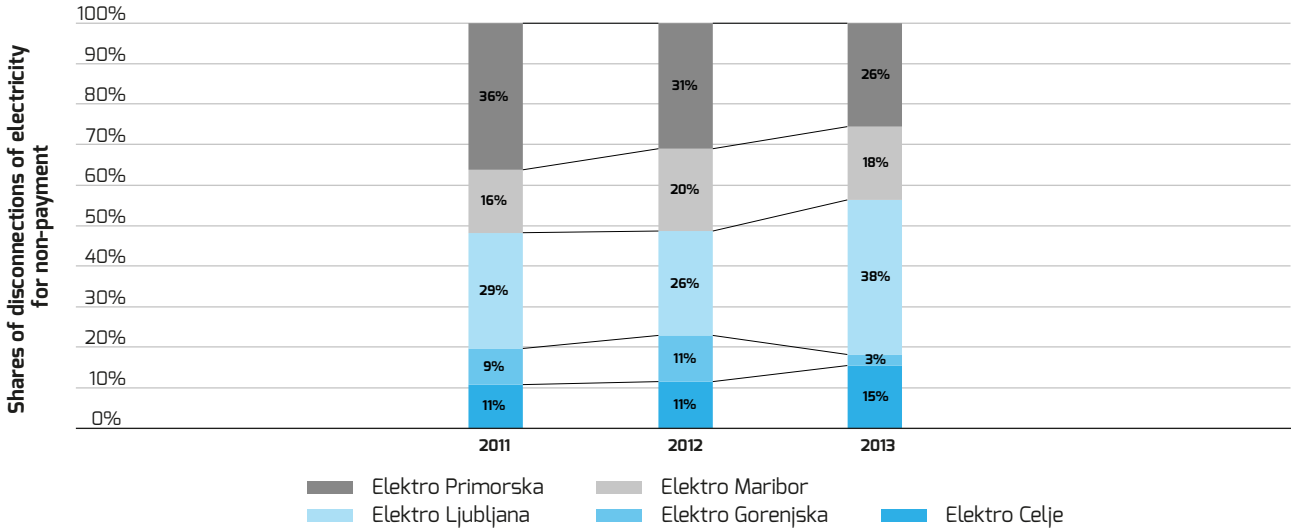
Sources: Electricity suppliers, SODO

Figure 46: Number of disconnections of electricity supply due to non-payment of electricity bills for 2011–2013 (household consumers)



Sources: Electricity suppliers

Figure 47: Shares of disconnections of electricity for non-payment for 2011–2013



Sources: Electricity suppliers

3.5.2.1 Consumers' complaints and dispute settlement

EA regulates the protection of household consumers in the event of his disagreement with the practices of his supplier. In that way, transparent, simple and free procedures are ensured for handling with consumers' complaints and dispute settlement. If a consumer does not agree with the decision of his supplier, he can address his application to the court.

The supply contract between the consumer and his supplier must comply with the General Conditions for the Supply and Consumption of electricity from the distribution system and must also contain an agreement on the method of resolving disputes. When a household consumer does not agree with his supplier practice, he has the right to inform him on the issue, and the supplier is obliged to consider the complaint and reply to it.

Of all household electricity consumers (827,902), in 2013 the suppliers received 7877 complaints, disagreements and arguments, which represents less than one percent of all complaints. 552 complaints were dismissed since they did not meet the conditions for examination; 7325 of them were eligible and were granted, and 2559 complaints were rejected.

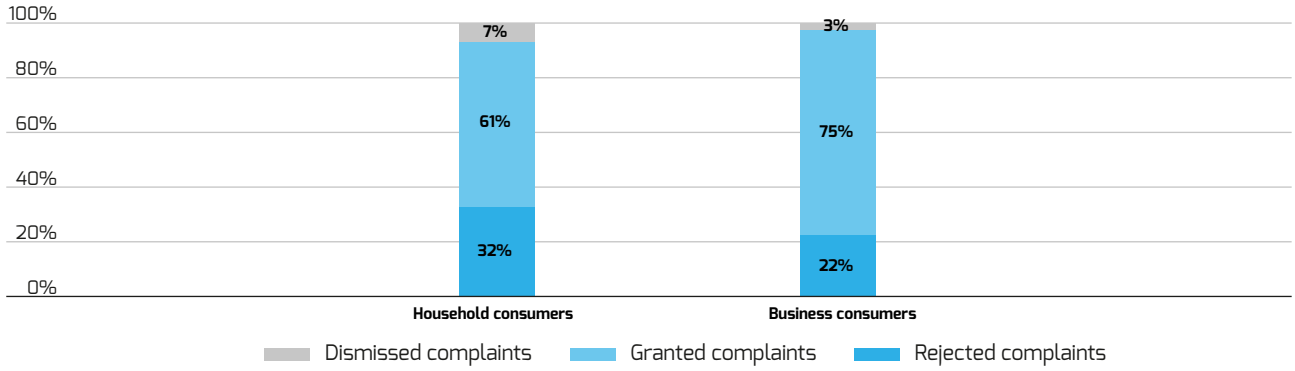
In the next table for 2013 the data on consumers' complaints to the electricity suppliers are shown, and Figure 48 shows the shares of rejected, dismissed, and granted complaints.

Table 31: Electricity consumers' complaints to suppliers in 2013

	Household consumption	Business consumption
Number of all complaints	7,877	1,437
Number of dismissed complaints	552	36
Number of accepted complaints	7,325	1,401
- granted	4,765	1,079
- rejected	2,559	322

Sources: Electricity suppliers

Figure 48: Share of dismissed, rejected and granted complaints in 2013



Sources: Electricity suppliers

Handling the complaints of household consumers relating to electricity supply, the supplier alone, or jointly with other suppliers within the Association shall provide household consumers with transparent, simple and inexpensive procedures for handling their complaints. For this purpose, an independent and impartial person or several persons responsible for deciding on complaints to whom household consumers shall address their complaints in relation to alleged violations of the supplier in implementing the electricity supply contract shall be appointed. In 2013, the person appointed received one complaint, which was rejected, and the consumer did not go to the court.

In Slovenia any breaches of the general rules relating to consumer protection are addressed and also appropriately sanctioned by the Market Inspectorate.

3.6 The deciding on disputes and complaints

The Energy Agency is legally authorised to decide, in an administrative procedure in the first instance, on dispute between the network user and the system operator or the market operator, and in second instance, on appeals against the decisions of the system operator relating to:

- access to the system,
- amount charged for the use of the system,
- allegation of the breaches of general supply conditions and system operating instructions,
- established imbalances and amounts for covering the costs of imbalance settlement and violations of general acts governing imbalances and their settlement,
- the rights of the protected customer

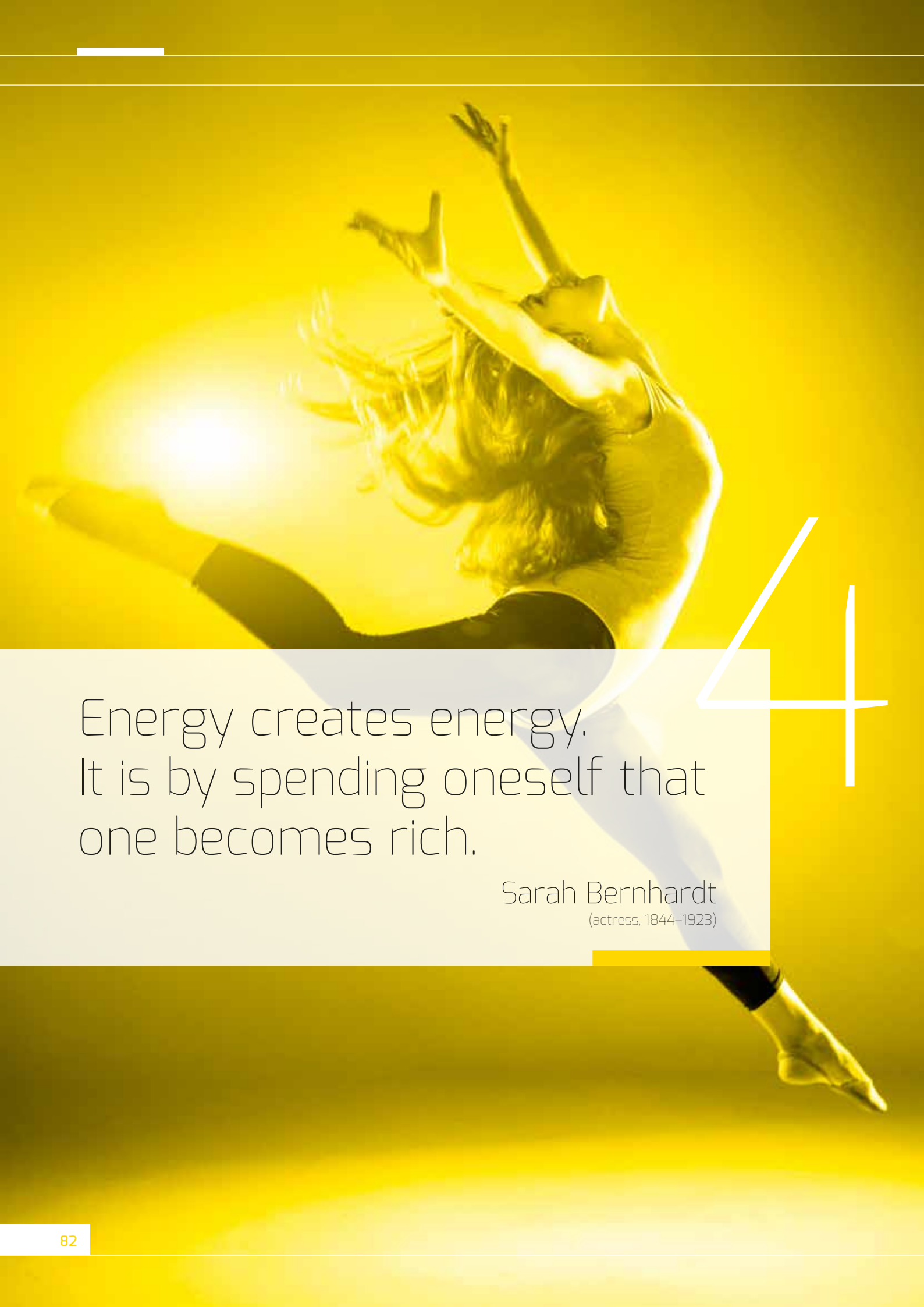
The Energy Agency in the administrative procedures in the second instance decides on appeal against the decisions of the system operator relating to a connection approval.

Before the network user submits an appeal for decision-making process in an administrative procedure in the first instance, the preliminary proceedings with the system operator have to be carried out. If the system operator and the network user do not resolve the issue, the request for a decision-making can be sent to the Energy Agency; the request must be accompanied by supporting documents and evidence of the correct preliminary proceedings. The application has to be submitted within 15 days after the written response from the system operator or the market operator. If the system operator does not reply within 2 months, the network user should submit the appeal for decision-making process to the Energy Agency within 15 days after the 2 months deadline. The Energy Agency shall decide on the appeal in an administrative procedure no later than 4 months. Against the Energy Agency's decision an appeal can be submitted to the Ministry, responsible for energy, or to file a lawsuit in the Administrative Court.

For administrative applications, filed to the Energy Agency, and for the final decision of the Energy Agency no administrative fees are charged.

In 2013, the number of requests to decide in the administrative procedure was lower by 6 requests in comparison with 2012, when the number was 27. The Energy Agency received 21 appeals for decisions, 7 of them in the first instance and 14 in the second instance. From the previous years, the Energy Agency decided on 3 disputes. Most of the disputes were related to electricity, only 2 to gas. One complaint was filed to the Ministry of Infrastructure and Spatial Planning.

As in the last five years, in 2013 the most of the decisions were made with respect to the appeals against the issued connection approvals. Consumers made complaints because of disagreements with the charged use-of-network price for connected load and technical conditions for connection, some complaints were filed due to disagreement of the owners of properties or facilities with respect to the connection to the distribution network.



4

Energy creates energy.
It is by spending oneself that one becomes rich.

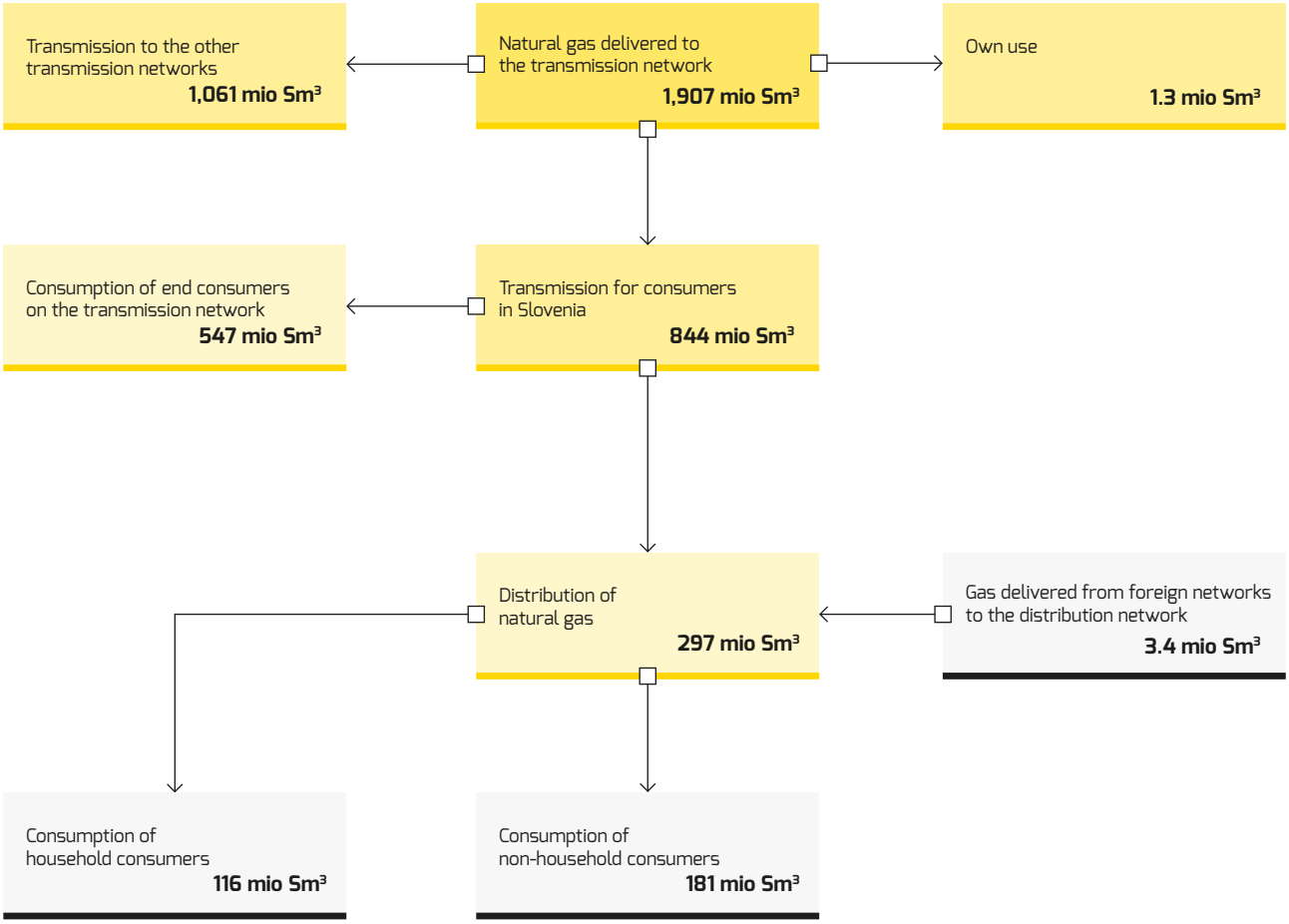
Sarah Bernhardt
(actress, 1844–1923)

Natural gas

4.1 General

In 2013, the consumption in the Slovenian natural gas market decreased by 2% and amounted to 844 million Sm^3. This decrease in consumption was in 2013 reduced by half in comparison to 2012. The consumption of large industrial consumers connected directly to the transmission network dropped again by 4.5%, which was almost the same percent than the year before. The positive trend in consumption was, therefore, the result of increased consumption of consumers, connected to the distribution network, where the consumption increased by 2.7%. The highest increase in consumption was registered by household consumers.

Figure 49: Basic details about the transmitted and consumed amounts of natural gas



Source: Energy Agency

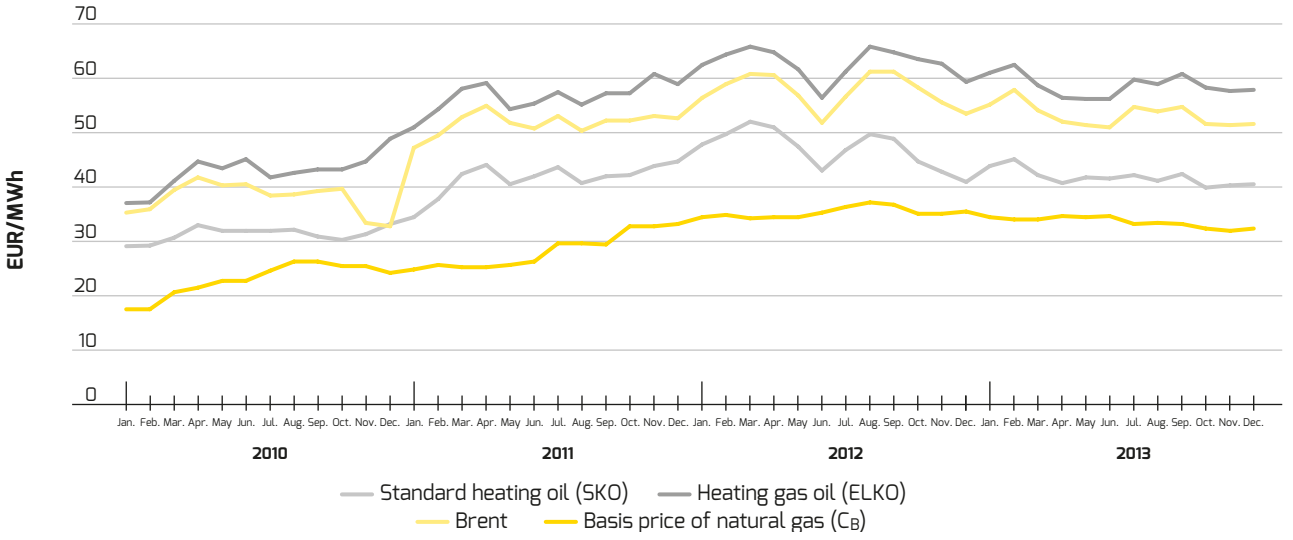
In contrast to the previous year, the amount of gas transferred to other transmission networks also decreased, namely by 4%.

Positive natural gas consumption trends can be attributed to increased competition, especially in the retail market, where the natural gas prices decreased the most. The effects of economic crisis still influence the consumption of natural gas by industrial consumers.

The number of importers of natural gas to Slovenia increased as well. More important than this, however, are the changes in shares of suppliers to wholesale and retail market of natural gas, which indicate that competition between them is increasing.

Figure 50 shows the trends of the prices for Brent oil, standard heating oil, heating gas oil and the basic price for natural gas on the transmission C_B between 2010 and 2013.

Figure 50: Trends of the prices for oil, oil products and the basic price of natural gas



Source: Energy Agency

When observing the prices of all energy products in 2013 a turnover can be noticed since all prices in December 2013 reached a slightly lower value than in December 2012. Relationship between prices of individual energy products remained the same as they were in the previous years.

4.2 The regulation and the regulated services

In Slovenia in 2013, in the natural gas market the regulated services were carried out by:

- natural gas transmission system operator (gas TSO)
- natural gas distribution system operators (gas DSO)

As an optional local services of general economic interest may be organised also the activities of the storage system operators, the LNG system operator and natural gas market operator, however, in 2013 there was no need for their implementation.

The activity of operating the natural-gas transmission network is carried out as a service of general economic interest; the provider of this service was the company Plinovodi d.o.o.; an optional local service of general economic interest of the gas distribution operator was performed by 16 companies.

The Energy Agency's activities related to regulated services include network charges for natural gas, access to the network, congestion management, balancing, certification, and others.

In 2013, the Energy Agency approved the rules of the gas TSO concerning congestion management mechanisms, and issued the consents to the Ten-Year Network Development Plan and transmission system network charge for the next three years.

4.2.1 The regulation of the transmission and distribution activities

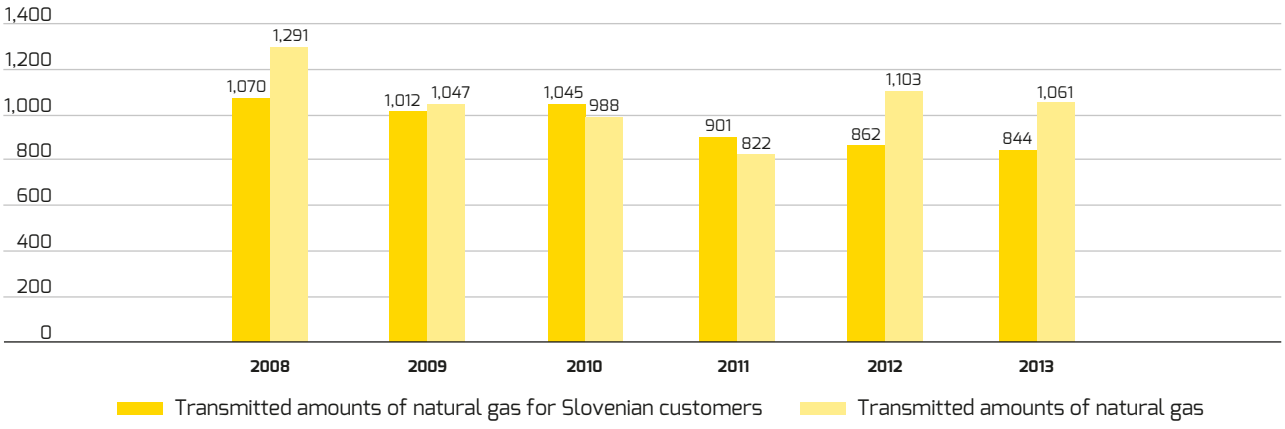
The activity of operating the natural-gas transmission network is carried out as a service of general economic interest; the provider of this service is the company Plinovodi d.o.o. In 2012, the company was certified as the independent transmission operator. In 2013 was established that the requirements for unbundling transport and supply of natural gas were meet, since there were no identified inconsistency.

An optional local service of general economic interest of the gas distribution operator was performed by 16 companies, which had, in accordance with the legislation, separate accounts.

4.2.1.1 The transmission of natural gas

In 2013, for the consumers in Slovenia 2.1% less natural gas was transmitted than the year before. The trend of decreasing consumption of Slovenian users of the transmission system continues as the consumption was decreasing the third consecutive year. In comparison with 2008, the consumption is lower for almost one fifth. For 3.8% less than the year before are lower the volumes of delivered gas to gas networks of neighbouring countries. Nevertheless, these volumes are the second largest after the year 2008. Figure 51 shows the transported natural gas volumes.

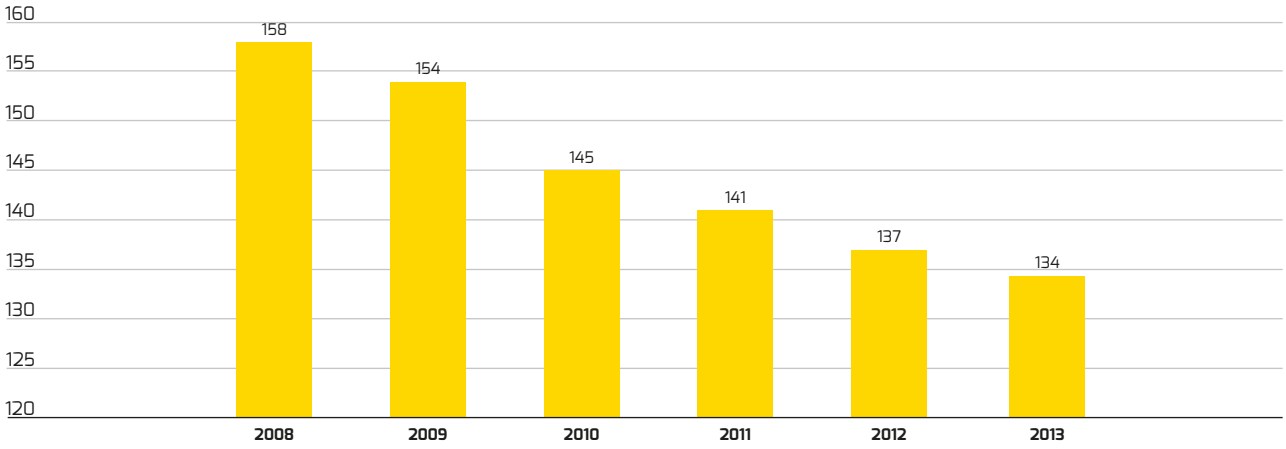
Figure 51: Transported natural gas volumes in million Sm^3



Source: Energy Agency

Negative natural gas consumption trend in Slovenia is reflected also in decreasing number of end users connected directly to transmission network. Their number is declining for five consecutive years, mainly due to economic crisis in the country. The gas DSO provided for transmission of natural gas through high-pressure and medium- pressure gas networks, and it operated, planned, built and maintained the transmission network for 15 gas DSOs and 134 end consumers connected directly to the transmission system.

Figure 52: Number of end consumers on the transmission network



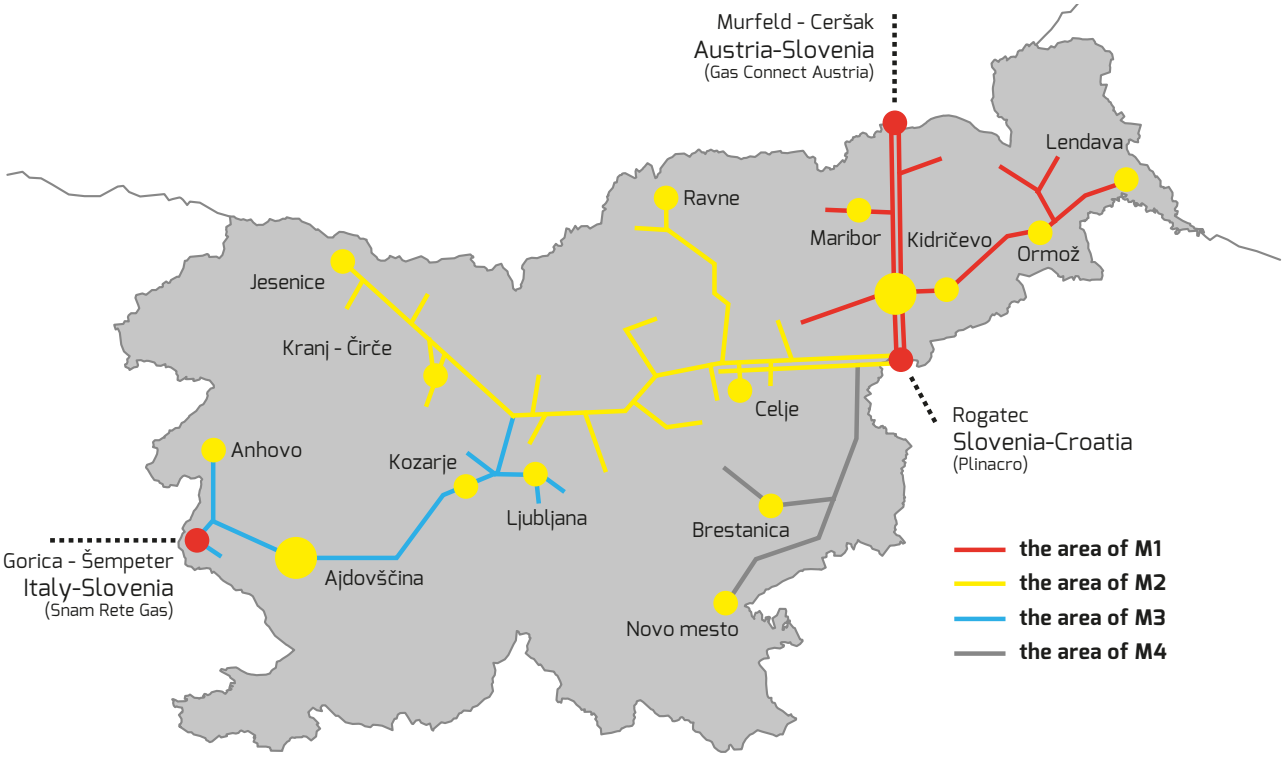
Source: Energy Agency

4.2.1.1.1 The gas transmission network

In 2013, 27 kilometres of new pipelines with a nominal pressure of more than 16 bars were built. Total length of high-pressure pipelines is so far 912 kilometres. The length of pipelines with a nominal pressure of less than 16 bars has remained the same and it is 209 kilometres. The gas transmission network also consists of 197 metering-regulation stations, 43 metering stations, 4 reducing stations, and compressor stations in Kidričevo and Ajdovščina. In Figure 53 a schematic map of the Slovenian transmission system network is shown.

The Slovenian gas transmission network is connected with the gas transmission networks of Austria (the Ceršak MRS), Italy (the Šempeter MRS) and Croatia (the Rogatec MRS). The transmission network is owned and operated by the transmission system operator, the company Plinovodi. The transmission of natural gas was conducted in accordance with plans and without any disruption.

Figure 53: Schematic map of the gas network with relevant points



Source: Plinovodi

Gas TSO performed 12 planned works that did not caused supply interruptions. There were no unexpected interruptions. The transmission system operator provided, as far as possible, a stable operation of the transmission network, and a reliable supply in line with contractual obligations.

4.2.1.1.2 The business operation of the gas TSO

The gas TSO finished the financial year 2013 with a net profit of € 7 million, which was 16% less than the year before. At the end of 2013 the company had 156 employees, or 3 less than in 2012.

4.2.1.1.3 The ownership of the gas TSO

The gas TSO is 100% owned by the company Geoplin d.o.o., which is a supplier of natural gas. Transmission system operator is the 50% owner of the new company Južni tok Slovenija d.o.o. (South Stream d.o.o.).

4.2.1.1.4 The investments in the transmission network

The transmission system operator continued to implement investments according to the adopted ten-year development plan. For construction and renovation of the transmission network paid € 52 million, which was 36% more than the year before. Depreciation funds presented 24% of the required funding, almost 9% or € 4.5 million came from other own resources, and € 35 million were non-refundable funds from the programme TEN-E 2010 and 2011 (Trans European Energy Networks), second annuity from EIB and short-term bridging loans.

In 2013, in terms of investment, the most significant achievement of the construction of transmission network was the setting up the parallel pipeline M2/1 Rogaška Slatina–Trojane on the

Rogaška Slatina–Podlog section. Also very important was the acquisition of the requisite operating licence for the parallel pipeline M2/1 Rogaška Slatina–Trojane on the Podlog–Trojane section. The construction of M2/1 Trojane–Vodice pipeline, with which the parallel connection between central Slovenia to the Austrian border (Ceršak) will be completed, continued. An upgrading of the compressor station in Kidričevo with a third compressor unit continued as well. Project and spatial planning documentation for was being drafted for 15 national spatial plans for various gas pipelines routes foreseen by the development plan. A decree on the national spatial plan was adopted and published. All the studies with respect to previous work on projects for which co-financing through non-refundable grants from the Trans-European Energy Networks (TEN-E 2011) were approved.

In the previous year, the TSO received for the first time the approval to a ten-year development plan (Ten- Year Development Plan for the period 2014-2023); the plan was approved by the Energy Agency, and it is in compliance with the Ten- Year Development Plan by ENTSOG.

The investments activities in 2013 are shown in Table 32.

Tabel 32: Investments activities in 2013

Facility	Activities in 2013
M2/1b Rogaška Slatina–Trojane	Construction in progress, with the completion of the section Podlog–Trojane end of the project
M2/1c Trojane–Vodice	Construction in progress, completion expected in 2014
R25A/1 Trojane–Hrastnik	The national spatial plan (NSP) adopted
Compressor station in Kidričevo, 1st phase of extension	Construction of the third compressor unit, completion expected in 2014
M6 Ajdovščina–Lucija, section OSP – Koper, connection to the Italian transmission system	Environmental approval obtained, expected start of construction work in 2016
MRS Marjeta	Construction finished, the supply possible in two municipalities in Podravje region

Sources: Plinovodi, Energy Agency

4.2.1.2 Distribution of natural gas

The distribution of natural gas, carried out as a service of a gas distribution system operator (gas DSO), is an optional local service of general economic interest. It can be organised:

- as a public company established by a local community;
- it can be regulated with a concession act between the concessionaire and the local community as the awarding authority or
- as an investment of public capital into the activity of private law.

The tasks of the gas DSO are listed in the provisions of the EA; these tasks mainly include the following:

- the distribution of natural gas
- the operation, maintenance and development of a distribution network
- the provision of the long-term network capacity

In 2013, 61 local communities had this service organised with a concession act between the concessionaire and the local community. In 15 local communities, this service was provided by public companies, in one community an optional local service of general economic interest was

provided as an investment of public capital into the activity of private law. In 77 local communities, this service was carried out by 16 operators of the distribution network. In the local community of Šenčur, this activity was carried out by 2 system operators, determined by the community, which operated in the three areas. In additional 9 local communities the concessions for the provision of the service of the gas distribution system operator were awarded; however, the gas distribution was not carried out, as the distribution networks is not yet ready for use.

All companies that are in Slovenia engaged in the distribution of natural gas that are at the same time also the suppliers of natural gas. For the distribution system operators that have fewer than 100,000 customers connected to a distribution network the legal unbundling of services is not required. In Slovenia, all distribution system operators fulfil this condition, in that way they do not need legal separation of distribution and supply, and only the unbundling of accounts for individual energy-related activities is sufficient. This means that the distribution companies have to manage separate accounts for each energy-related activity.

In 2013, there were a total of 4449 kilometres of gas distribution pipelines with different pressure levels, which was 2.8% more than the year before. Most of them, 49%, operate at a pressure between 100 millibars and 4 bars, as it is shown in the next table. The distribution lines, together with the corresponding facilities, are mainly owned by the system operators.

Table 33: Distribution lines and metering (regulation) stations

Length of the network with pressure level between 4 and 16 bar	48 km
Length of the network with pressure level between 100 mbars and 4 bars	2,192 km
Length of the network with pressure level up to 100 mbars	2,209 km
Number of metering stations	32
Number of metering-regulation stations	176

Source: Energy Agency

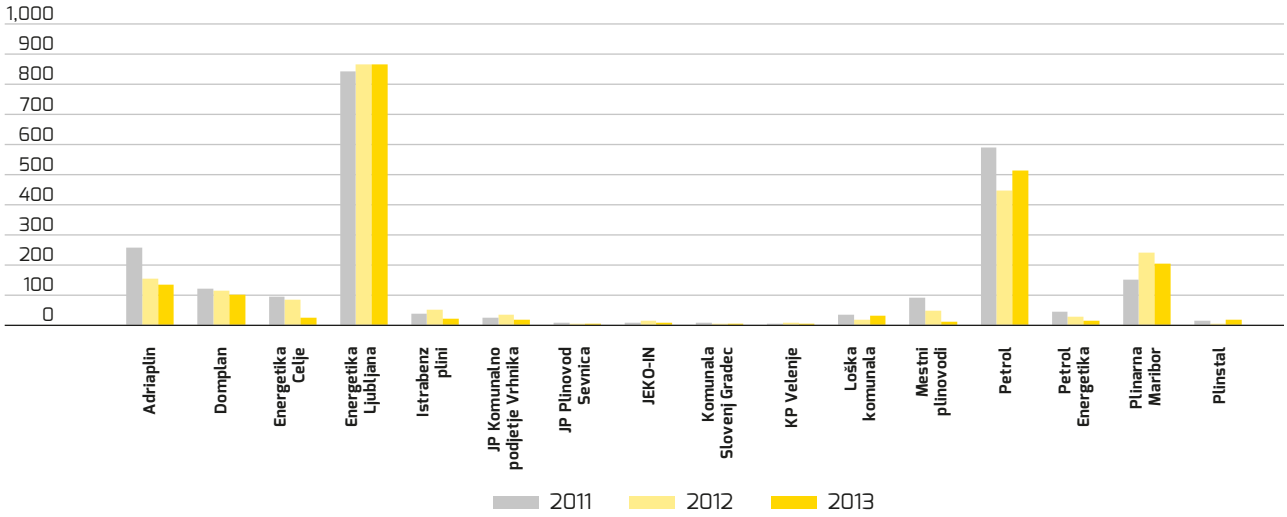
The reliable and safe operation of a gas distribution network is only possible if regu¬lar and extraordinary maintenance work is carried out. The regular maintenance work was, on average, completed in 11 hours. There was a total of 502 unplanned maintenance works, in duration of 5 hours on average, and a total of 93 unplanned supply interruptions due to force majeure or third parties, the total duration of which was 460 hours.

4.2.1.2.1 Consumers connected to the distribution network

In 2013, a total of 132,805 natural gas consumers in 76 local communities were connected to all distribution networks, which was 1% more than in 2012. There were 119,468 household consumers, or 1.1% more, and non-household 13,471, or 0.2% less than in 2012. The gas DSO distributed 297 million Sm^3, which was an annual increase of 2.8%. Distributed volumes were higher for households, 4.6%, and for non-households 2.1%.

In 2013, the gas DSOs connected 1976 new consumers, which was 6% less than in 2012. Numbers of new consumers in each year from 2011 to 2013 are shown in the next figure.

Figure 54: Numbers of new consumers on the distribution networks for 2011-2013



Source: Energy Agency

On average, the distribution system operators issued a connection approval in 25 days after the receipt of an application. At one system operator, the longest period for issuing the connection approval, lasted on average 60 days. To make a physical connection to a network took 7 days on average.

In 2013, the use-of-network prices charged to the consumers connected to a gas distribution network were regulated. The household consumers connected to the distribution networks use natural gas mainly for cooking, preparing hot water and heating. As much as 96% of consumers use up to 4500 Sm^3 of natural gas per year, and 90% less than 2500 Sm^3; less than 4% of consumers with annual consumption over 4500 Sm^3 represents 64% of the total consumption on the distribution network.

4.2.1.2.2 The business operations of the distribution system operators

In 2013, 10 distribution companies had a total net profit of € 3.7 million, and the remaining 6 companies had a total net loss amounting to € 0,6 million.

4.2.1.2.3 The ownership structure of the distribution system operators and the network ownership

On 31 December 2013 there were 6 gas DSOs owned by one one or more municipalities, and 6 gas DSOs mainly owned by domestic or foreign legal entities. The ownership of 4 gas DSOs is dispersed, since they do not have a majority owner. The ownership structure is shown in the next table.

Table 34: Ownership structure of the companies for gas distribution

Ownership structure of the companies for gas distribution	Number of companies
Majority ownership of one or more municipalities	6
Majority ownership of a domestic legal entity	5
Majority ownership of a foreign legal entity	1
No majority owners	4
Total	**16**

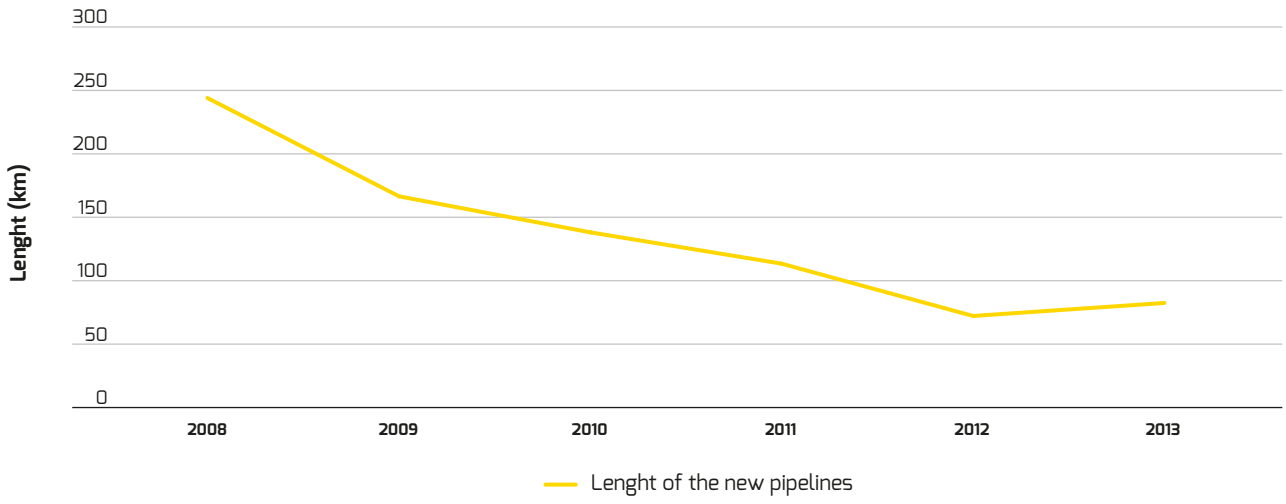
Source: Energy Agency

Distribution networks were owned by 9 system operators, while the remaining 7 system operators were not the owners of the distribution networks. If the system operator does not own the network or its part, it has to conclude an agreement, which settle all issues relating to the use of the network. A contract has to regulate in particular the scope and purpose of the use of the network, rental charge or other payments, conditions and procedures of current and investment maintenance of the network, and other issues needed for carrying out tasks of the system operator. The content of the contract and its implementation in terms of compliance with the methodologies on network charges was under the supervision of the Energy Agency in accordance with Article 31b of the Energy Act which was in force in 2013.

4.2.1.2.4 The investments in the distribution networks

In 2013, 104 kilometres of distribution pipelines were built, which means 44% more than the year before. By that, the downward trend of construction of distribution networks, which lasted for the last four years, stopped.

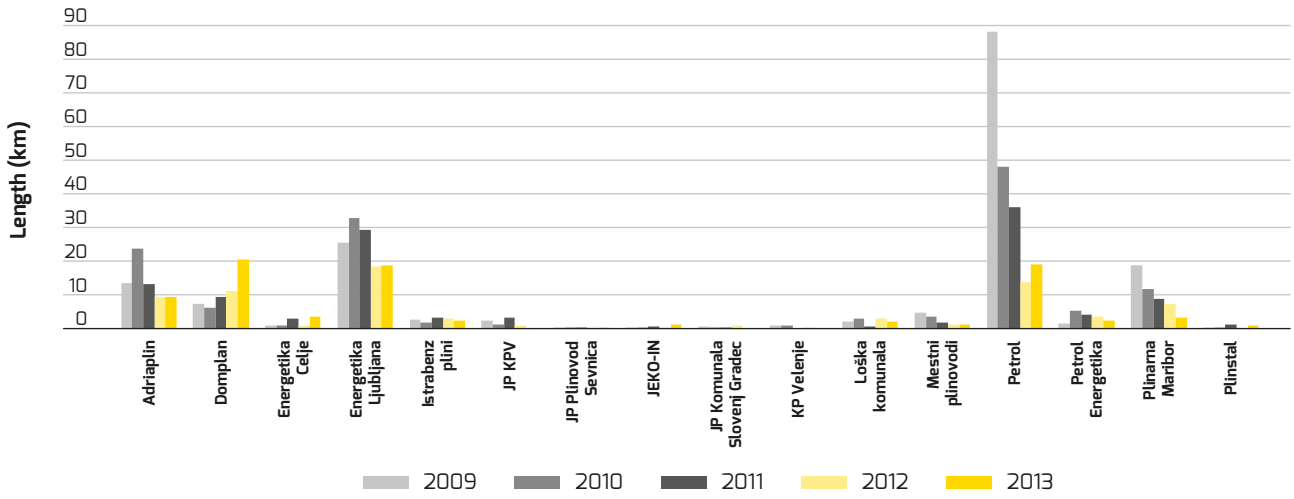
Figure 55: Construction of new distribution networks



Source: Energy Agency

Figure 56 shows the intensity of the construction of new pipelines by individual distribution system operators. Only 4 operators are actively engaged in expanding its distribution networks.

Figure 56: Length of new distribution networks for 2009–2013



Source: Energy Agency

4.2.1.3 The network charges for natural gas networks

The price for the use of networks consists of the network charge and the supplements. The Energy Agency regulates the network charge with methodologies that determine the method and accounting of the network charge. The supplements, which are an integral part of the use-of-the network charge, are determined by the Government of the Republic of Slovenia.

The network charge is used for financing the costs of the gas DSO services of general economic interest and the costs of ancillary services. The network charges for the transmission and distribution networks are set by the system operators, with an approval from the Energy Agency.

4.2.1.4 The network charge for the transmission network

The foundations for setting the network charge are provided by the Act Determining the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for the Gas Transmission Network, and the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network.The method of price capping is used when setting the network charge. The both Acts were prepared and adopted by the Energy Agency.

The methodology for setting the network charge determines the mode, conditions and method of setting the network charge, and the criteria for establishing the eligible costs of the system operator, which include also incentives for more efficient operation of the system operator. The network charge depends on the leased contractual transmission capacity, the transported volumes of natural gas, the type of metering device used, and taking into account other parameters of the methodology for charging the network charge

The network charge for a three-year period is set by the gas transmission system operator by the public authority with the Act Setting the Network Charge for the Gas Transmission Network. The

system operator publishes this Act in the Official Gazette of the Republic in Slovenia after obtaining approval from the Energy Agency.

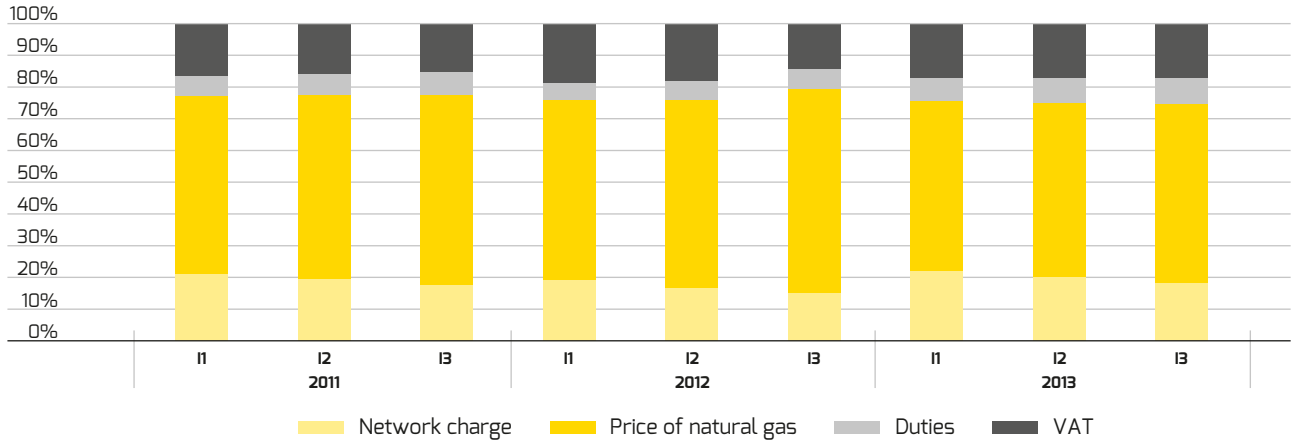
Since 1 January 2013, for charging the network charge for the gas transmission network the method of entry-exit points is used, which means a system of uniform tariffs for individual consumers groups throughout the Slovenian territory. Thus, from 1 January 2013, the users are charged for the following:

- network charge for entry points
- network charge for exit points
- network charge for own use
- network charge for measurements

Tariffs reflect eligible costs of the transmission system operator. For customers, connected to the gas transmission system, the network charge is disclosed separately on the bill.

The final price of natural gas for industrial consumers consists of the use-of-network price, gas price and taxes. Taxes consist of CO_2 taxes, excise duty and supplement for energy efficiency improvement. Taxes without VAT account from 7 to 8% of the final price of gas. The price of gas as a commodity for industrial consumers represents from 54 to 57% of the final price, and the network charge from 18 to 22% of the final price. Figure 57 shows the structure of price for industrial consumers.

Figure 57: Structure of the final gas price for industrial consumers in 2011, 2012 and 2013



Source: Energy Agency

4.2.1.4.1 The network charge for the gas distribution networks

The network charge is determined in accordance with the Act Determining the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for a Gas Distribution Network, and the Act Determining the Methodology for Charging for the Network Charge for a Gas Distribution Network. These acts were established and adopted by the Energy Agency.

The methodology for setting the network charge determines the mode, conditions and method of setting the network charge, the criteria for establishing the eligible costs of the system operator, and incentives for efficient operation of the system operator. The network charges for the distribution networks also include the costs related to the use of the transmission network.

When setting the network charge the method of regulated network charge is used, which determines causal relationship between the eligible costs and the revenues of the system operator. Network charge as a part of the price for the use of distribution network is an annual revenue of the system operator, used for covering the eligible costs of a system operator.

Tariffs for the distribution networks are unified for individual customers groups for individual geographical areas. Prices for all typical customers in different areas are not the same as the prices reflect different costs of distribution system operators in individual geographical area. Individual customer groups are defined in line with the methodology for charging for the network charge.

Distribution system operators determined the tariffs in act setting the network charge tariffs for the gas distribution network relating to an individual geographical areas; act were published in the Official Gazette of the Republic of Slovenia, after prior consent of the Energy Agency. In 2013, a total of 24 acts setting the network charges for the gas distribution networks were implemented in 77 local communities

Distribution system operator charges:

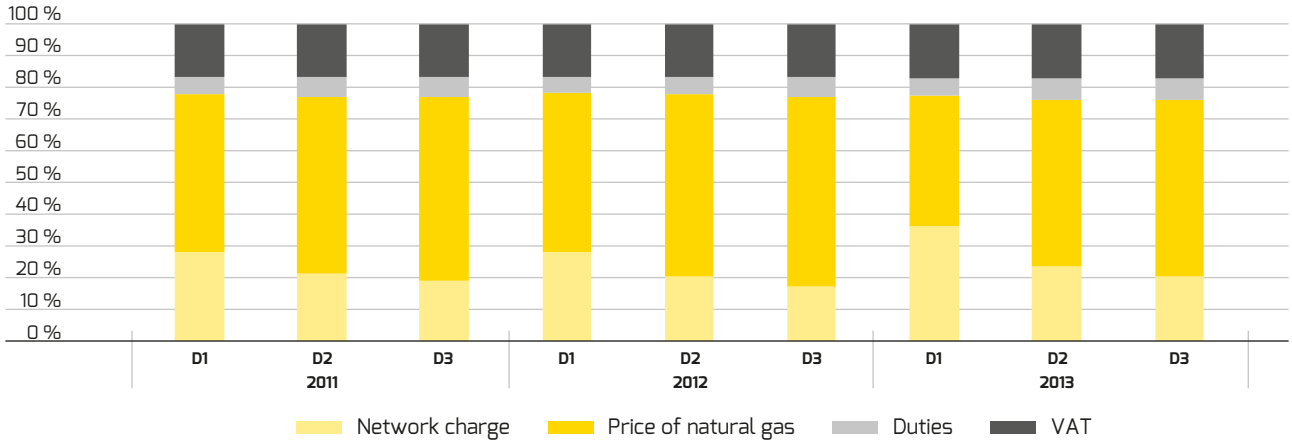
- the amount of natural gas distribution,
- the amount of measurements performed.

In 2013, all gas distribution system operators provided for a separate disclosure of the use-of-network price on the bills issued to their customers.

The final price for natural gas consists of the use-of-network price, the price for natural gas, and taxes. Taxes consist of taxes for CO_2, excise duty, and supplement for energy efficiency improvement. Taxes were accounting between 5 to 7% of the final price. For the household customer the price of gas as commodity represents from 40 to 56% of the final price, and the use-of-network price from 20 to 37% of the final price.

Figure 58 shows the structure of the final price for household customers.

Figure 58: Structure of the final price of natural gas in 2011, 2012 and 2013 for household consumers



Source: Energy Agency

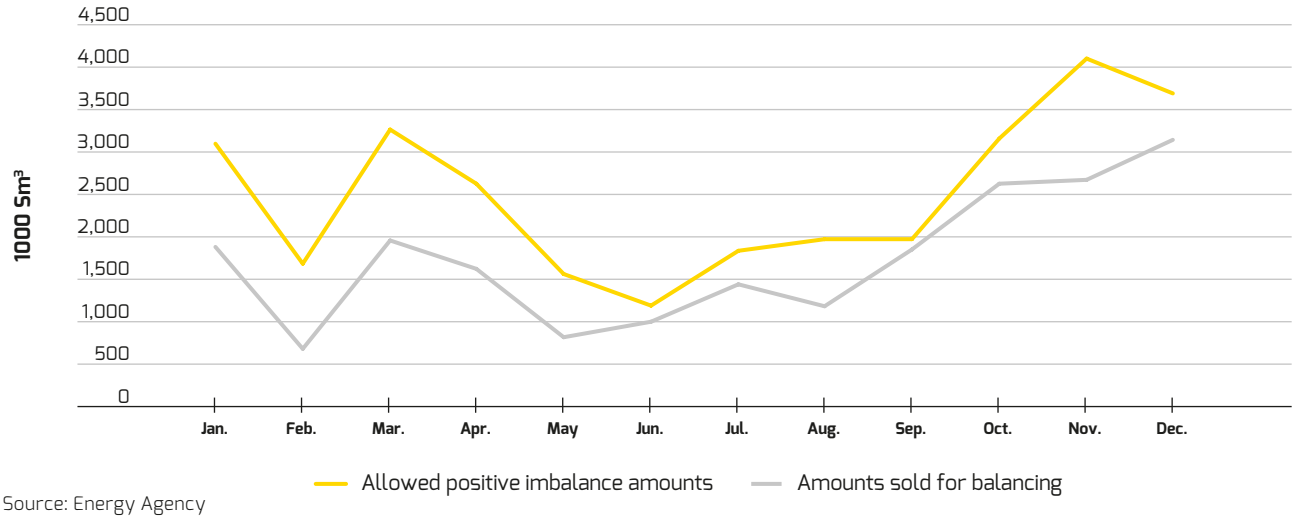
In 2013, most of natural gas suppliers and entered into agreement with system operators to set up mutual relations, which allows household consumers to pay gas consumption with one bill or universal payment order, even if the suppliers and system operator are not the same legal entity (single account).

The agreement between suppliers and gas DSO from July 2013 enabled household consumers of natural gas that even after switching the suppliers to pay gas consumption with only one bill.

4.2.1.5 The balancing

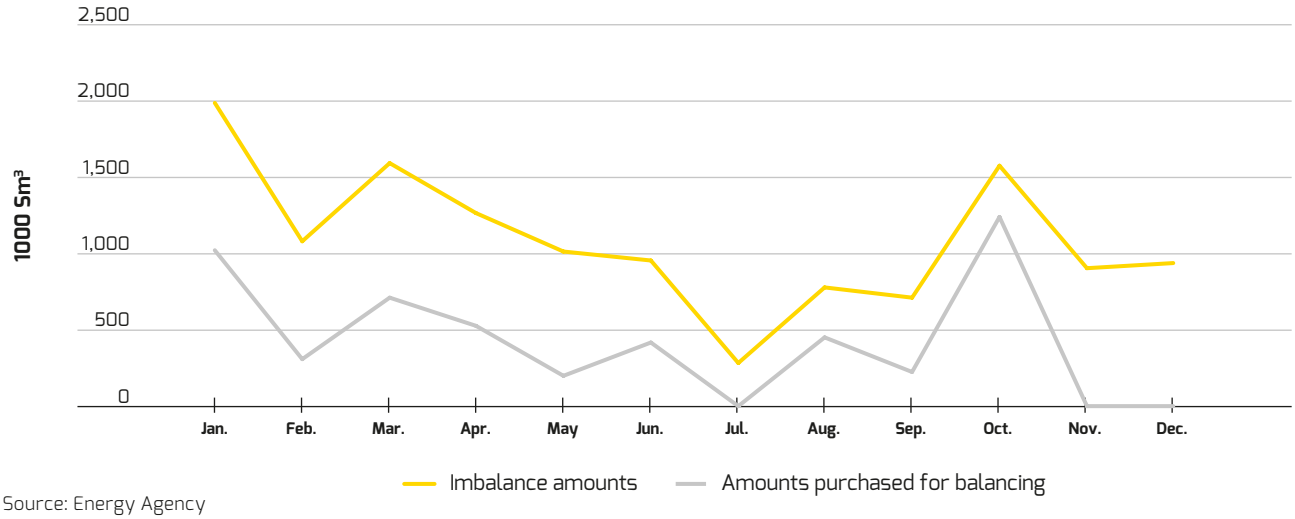
In 2013, the number of balancing groups increased from 3 in 2012 to 12, and at the end of the year stabilised at 10. The gas TSO charged for imbalance amounts and took care for balancing of the system by buying and selling natural gas.

Figure 59: Amounts of natural gas required for balancing and amounts sold for balancing



Source: Energy Agency

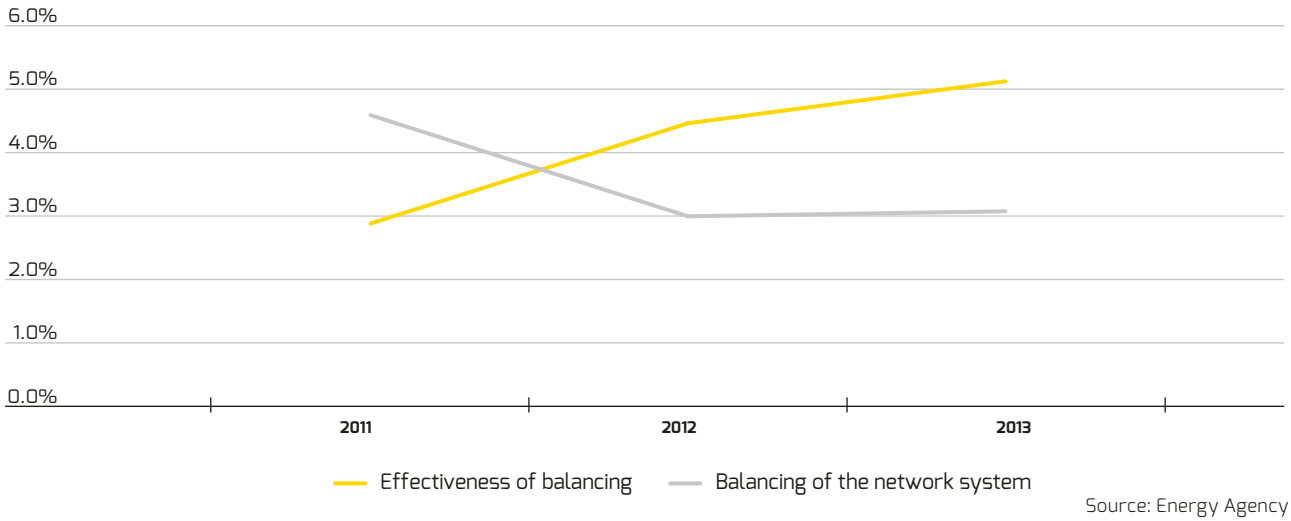
Figure 60: Amounts of natural gas for balancing and amounts purchased for balancing



Source: Energy Agency

Amounts of natural gas for daily imbalance settlement in 2013 amounted to 5.1% of transferred gas for consumers in Slovenia. The amounts needed for balancing the transmission network represented 3.1% of all transferred amounts. Figure 61 shows the effectiveness of implementation of balancing of the volumes of balancing groups and balancing of the transmission network for the last three years. Because of many new responsible parties, which do not have many experiences with the performance of balancing for its members, the effectiveness of balancing significantly deteriorated On the other hand, the gas TSO managed in the last two years improved the balancing of the system, and achieved to lower relative values of the gas volumes, required for balancing, by third.

Figure 61: Effectiveness of balancing for balancing groups and balancing of the network system

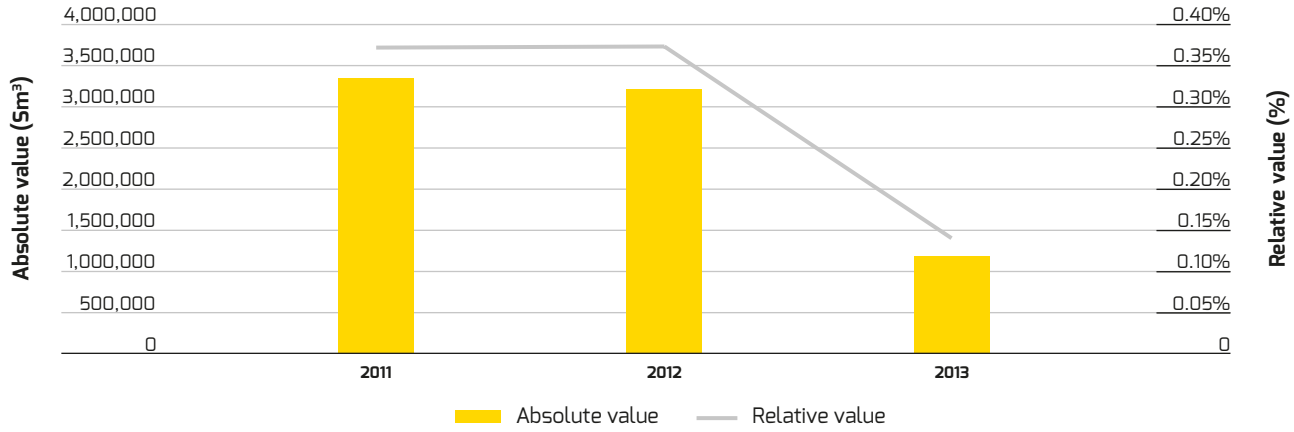


Source: Energy Agency

In 2013, imbalances amounted to € 1.2 million Sm^3 of natural gas, which was 0.14% of all transferred volumes of natural gas for consumers in Slovenia. In June and November the imbalances were positive, and in other months of 2013 negative. In comparison with the year before, the imbalances decreased for almost two thirds, in absolute and relative values compared to the annual transferred volumes for the Slovenian consumers.

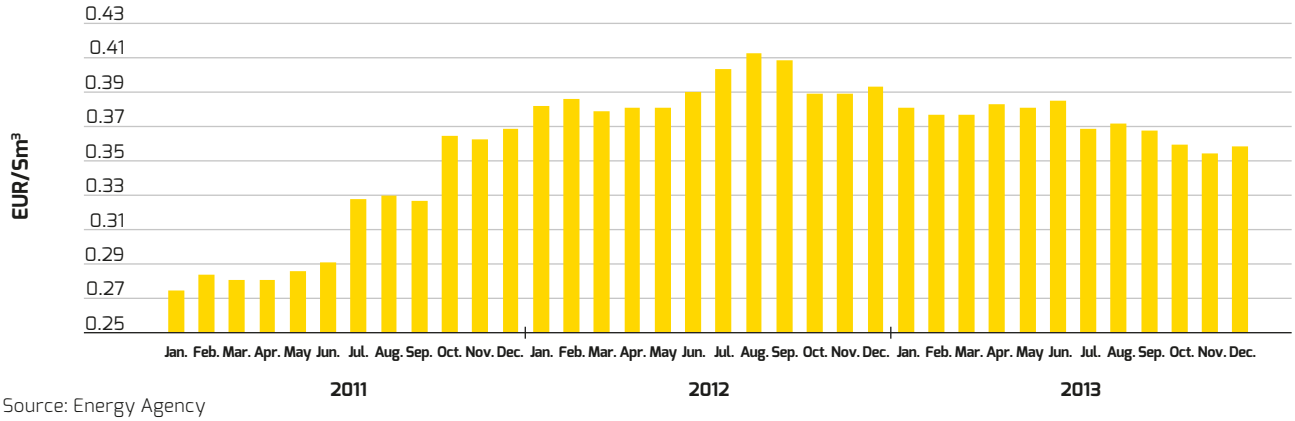
The grounds for settlement of imbalances, the differences and own use is the basic price CB, which was in 2013 on average 0.3726 EUR/Sm^3, almost 5% less than the year before, and as much as 18% more than in 2011.

Figure 62: Imbalances



Source: Energy Agency

Figure 63: Basic price (C_B) movements from 2011 to 2013



Source: Energy Agency

4.2.1.6 The secondary market of transmission capacity

The trend of accelerated development of the secondary market of transmission capacity continued also in 2013. Significant increase in number of bids and enquires for spare capacity, as well as contracts for sublease is partly the result of a separate lease of capacity at the borders' entry and exit points, and partly also reflects users' growing awareness about the possibilities of the secondary market and accelerated development of the Slovenian natural gas market in recent years.

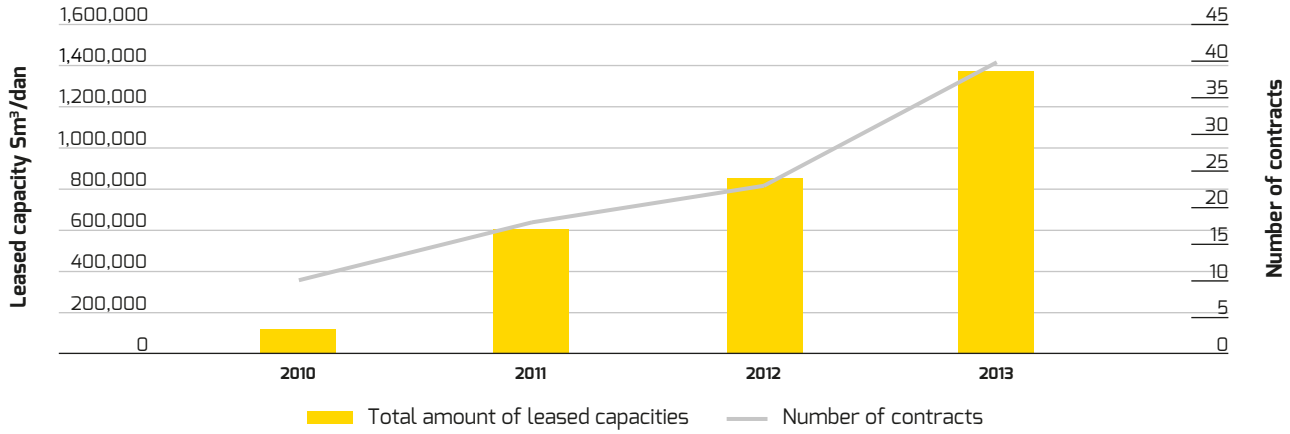
Table 35: Trading of spare capacities in the secondary market 2013

	Border entry points	Border exit points	Exit points in Slovenia
Number of transmission capacity providers	22	1	8
Number of bids	30	5	11
Total amount of offered capacity in v Sm3/day	857,690	479,500	80,621
Number of enquirers for capacity	12	1	6
Number of enquires	27	5	9
Total amount of enquired capacity in Sm3/day	869,194	479,500	64,621
Number of providers who sold transmission capacity	18	1	6
Number of enquirers who leased capacity	11	1	6
Number of contract for sublease	26	5	9
Total amount of subleased capacity in Sm^3/dan	831,194	479,500	64,621
Number of refused sublease	0	0	1

Sources: Energy Agency, Plinovodi

Accelerated development of the secondary market with transmission capacities is shown in Figure 64. From year to year, all indicators are increasing, and growth indices are amounting every year over 10 percent. In 2013, the largest increase was in the number of providers that sold transmission capacities (growth index 2.5), the number of transmission capacities providers (growth index 2.21) and the average period of subleased capacity, which amounted to 249 days and was 2.2 times longer than in 2012.

Figure 64: Development of the secondary capacity market



Sources: Energy Agency, Plinovodi

4.2.2 Unbundling of services

In Slovenia the mandatory national public service of the gas TSO is carried out by one provider, while the optional local public service of the gas DSO is carried out by 16 providers.

The gas TSO carries out its service as an independent legal entity, and it is 100-percent owned by a domestic legal entity supplying natural gas to Slovenia. The gas TSO owns the assets required for the provision of this service.

None of the 16 gas distribution system operators were subject to legal unbundling, as the EA does not require service unbundling within those distribution companies that have fewer than 100,000 customers connected to a distribution network. Table 31 shows the ownership structure of the gas distribution system operators. In 2013, all the distribution system operators also carried out other energy-related and market-based activities, and for this reason they maintained separate accounts for each activity, in line with Article 38 of the EA. The providers of energy-related services relating to the supply of electricity, natural gas or heat are, in line with Article 37 of the EA, obliged to have their accounts audited, and to make them publicly available. Audited annual reports have to include the rules used for the production of separate accounts by energy-related activity, for which the operators had previously obtained approval from the Energy Agency. The use of the listed rules for producing separate accounts has to be examined by an auditor.

4.2.3 The allocation of cross-border transmission capacity

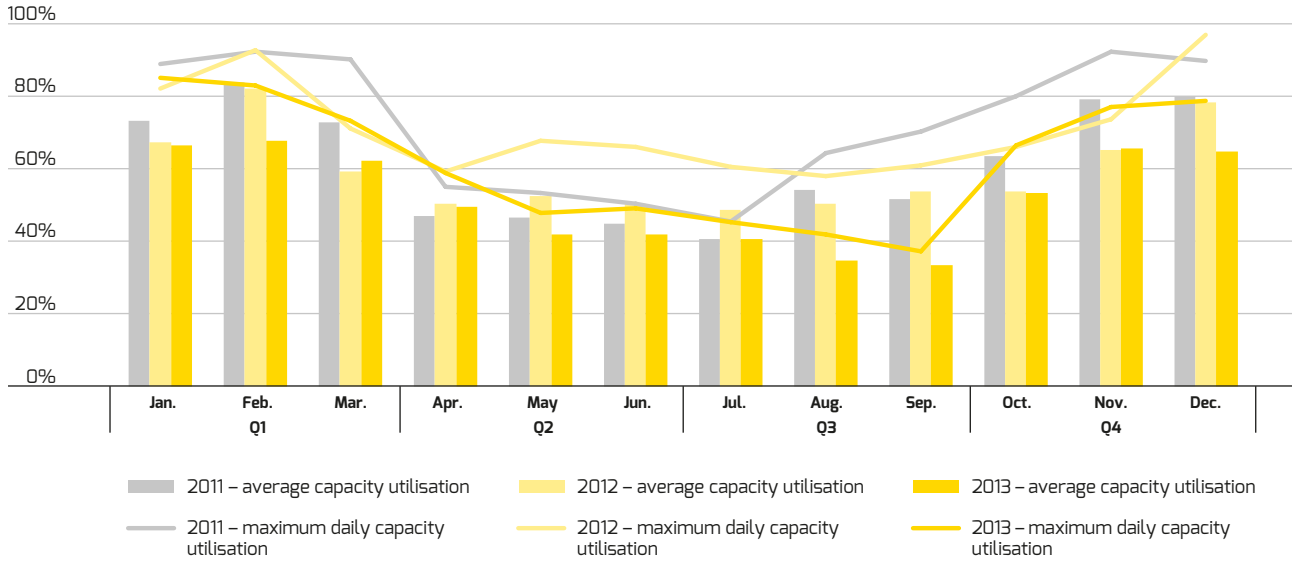
4.2.3.1 The cross-border transmission capacity

The cross-border transmission capacity is used for the provision of the transit of natural gas to the neighbouring networks and for a reliable supply with natural gas in Slovenia. In most of 2013, the average monthly utilisation of 2 out of 3 metering-regulation station (MRS) was lower in comparison with the previous year. In the MRS Ceršak, the further decline of utilisation was detected, for around 7.5%, which is the result of: decreased amount of the transported natural gas, especially in the third quarter, increased technical capacity of the M2/1 Rogaška Slatina-Podlog pipeline and relatively warm winter months. In MRS Šempeter a decrease reached almost 2%. The average monthly and highest daily utilisation of contracted capacity of the most important border-entry point in Ceršak amounted to 40.6%, outside the heating season, and in heating season to 63.5%.

In 2013, the average annual utilisation of the capacity of the most important border-entry metering-regulation station, Ceršak, was 52.0%, the average annual utilisation of the entry-exit point Rogatec remained at the last year's level, at 57.5%. The average annual utilisation of entry point in Šempeter is remaining low by 6.3% of utilisation.

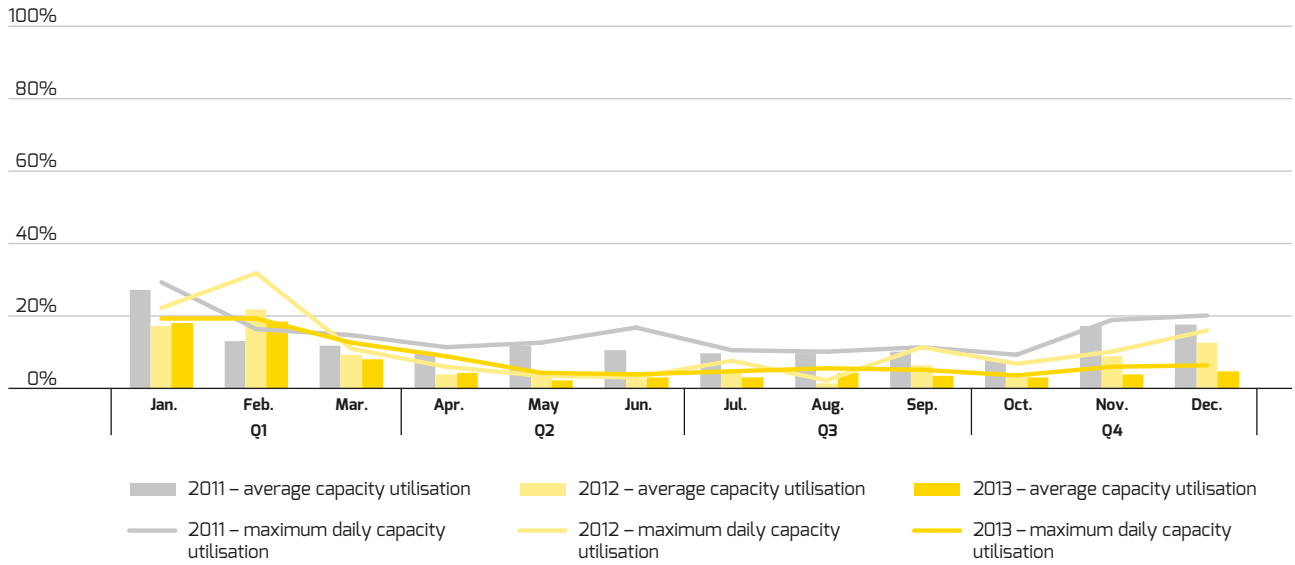
Figures from 65 to 67 show the average monthly and highest daily utilisation of individual border points (entry-exit points); the dynamics of daily transferred natural gas volumes, technical, contractual and interruptible capacity is shown in figures from 68 to 70.

Figure 65: Maximum daily and average monthly capacity utilisation of the metering-regulation station Ceršak



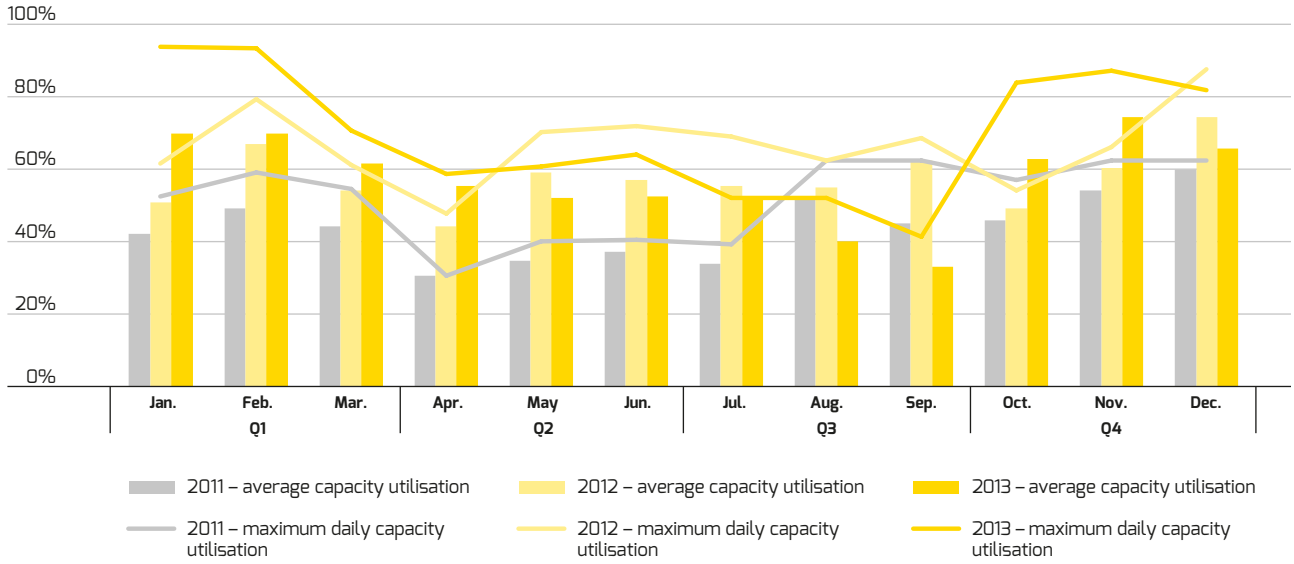
Sources: Plinovodi, Energy Agency

Figure 66: Maximum daily and average monthly capacity utilisation of the metering-regulation station Šempeter



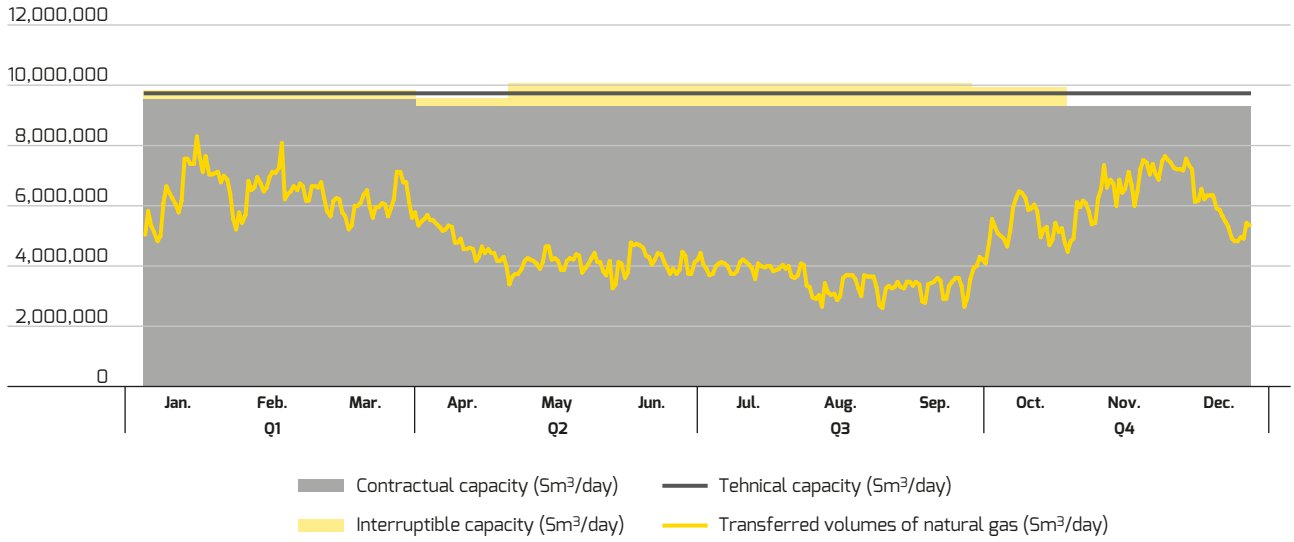
Sources: Plinovodi, Energy Agency

Figure 67: Maximum daily and average monthly capacity utilisation of the metering-regulation station Rogatec



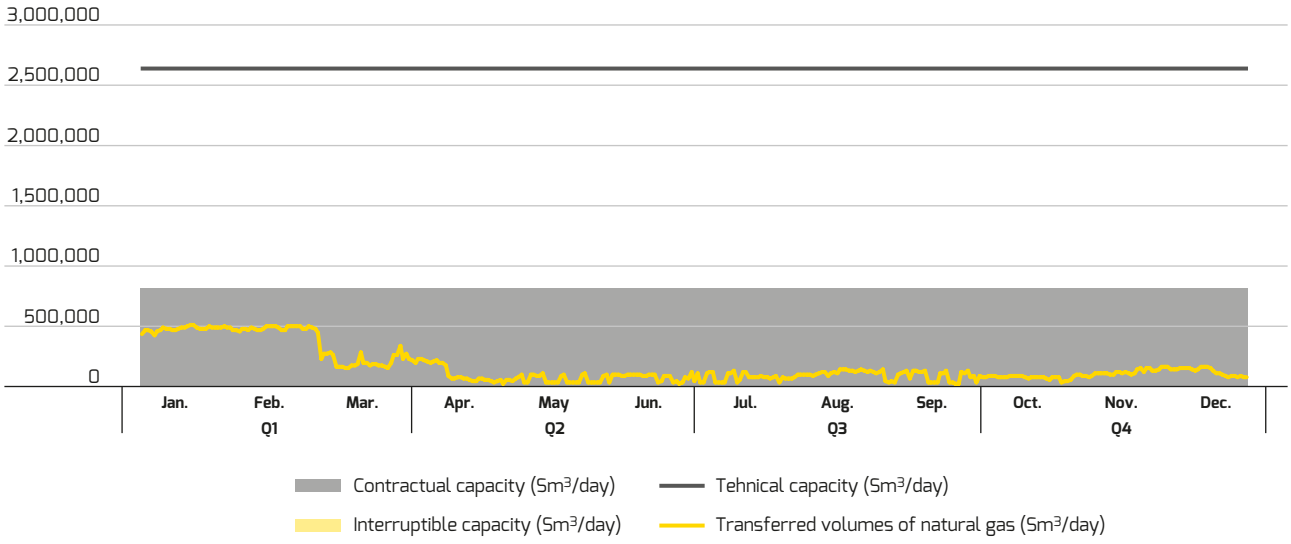
Sources: Plinovodi, Energy Agency

Figure 68: Dynamics of daily transferred volumes of natural gas, technical, contractual and interruptible capacity at the border-entry point Ceršak



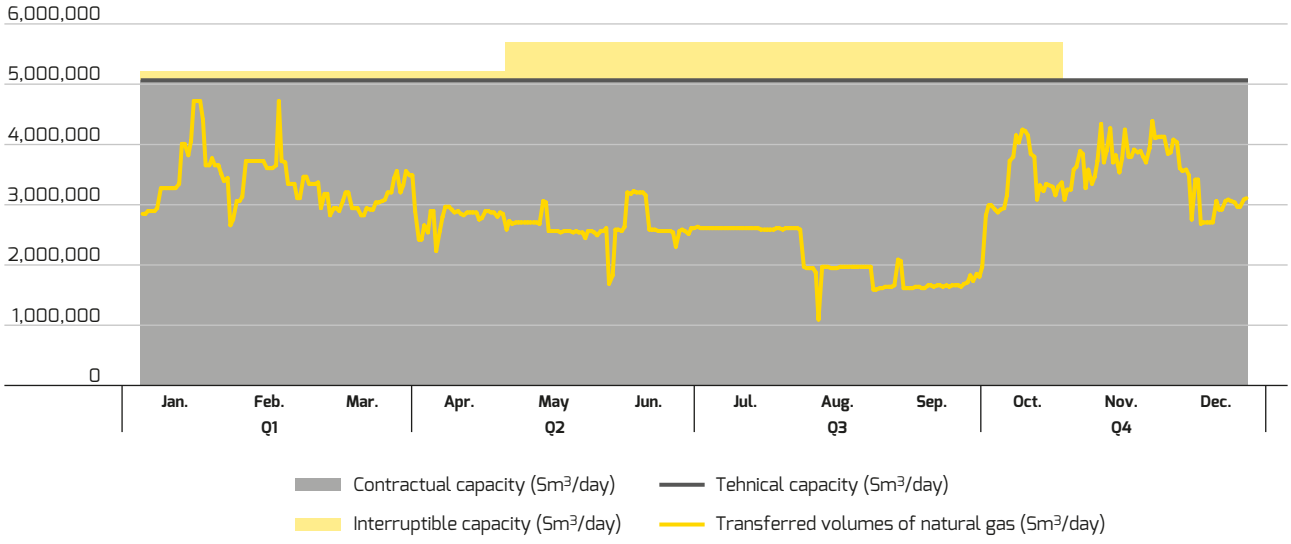
Sources: Plinovodi, Energy Agency

Figure 69: Dynamics of daily transferred volumes of natural gas, technical, contractual and interruptible capacity at the border-entry point Šempeter



Sources: Plinovodi, Energy Agency

Figure 70: Dynamics of daily transferred volumes of natural gas, technical, contractual and interruptible capacity at the border-exit point Rogatec



Sources: Plinovodi, Energy Agency

4.2.3.2 The methods of setting the maximum technical capacity

The maximum technical transmission capacity is the one that is physically available for the transmission of natural gas from a selected entry point to an exit point. When setting the maximum technical capacity the gas TSO considers the technical capacities of all the transmission components of the pipeline system, the configuration and the operational characteristics of the entire system, and its operational boundary conditions.

The gas TSO sets the maximum technical capacity of the gas network on the basis of the model for calculating the gas network capacity by way of considering possible combinations of the supply and consumption of natural gas, and the statistical model of forecasting the gas consumption of domestic consumers.

The following two models for simulating the gas consumption are used:

- the OLS model (Online Modelling System) that can, on the basis of current conditions in the gas network, forecast its future behaviour depending on forecasted allocation of consumption and nominated transfers of natural gas, and alert the operating personnel in case of detection of an abnormal operating conditions
- the offline model used for assessing the conditions and the transitional features, depending on the expected data and expected expansions, or changes, of the gas network.

The forecasting of the daily gas consumption is based on the model of forecasting by way of auto-learning, which activates historical data on gas consumption in different operational conditions. The expected daily consumption is calculated on the basis of this data, the forecasted operational conditions, and the daily forecasts of individual gas customers. The technical capacity of the gas network, therefore, depends on the operation of the system and also on the current distribution of the consumption points for domestic consumption.

4.2.3.3 The allocation of the transmission capacities of the network

On 1 January 2013, the gas TSO introduced a new methodology for calculating the network charges for the use of transmission system for natural gas. The methodology is based on the entry-exit points, which allow users a separate lease of entry and exit capacity of each entry and exit points of the transmission network.

The allocation of entry and exit capacity is conducted by the rules, which are included in General conditions for the supply and consumption of natural gas from the transmission network, Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks and Rules of procedure for implementation of Regulation (EC) No. 715/2009.

In 2013, the average total amount of transmission capacity at the entry points amounted to 10.6 million Sm^3/day, which was 3% more than planned, and almost 6% more than on average in 2012. At all entry points the realised average volume of leased capacity was higher than planned. Average lease of transmission capacity at the exit points for almost 7% exceeded the planned one on account of leased capacity at the exit border points. More than 14% higher than planned was the lease of transmission capacity at the exit border point Rogatec, which rose to 5.4 million Sm^3/day. Capacity was leased also at the exit point Šempeter. At the exit points in Slovenia, the average lease of capacity in the same period amounted to around 5.8 million Sm^3/day. The share of leased capacity at the border exit points was a little bit higher than in the same period the year before, and amounted to around 49% of all leased exit capacity.

Due to scheduled maintenance, performed by the gas TSO in the neighbouring countries, in June 2013 for a short period of time the technical capacity at the border point Ceršak (50% availability) and border point Rogatec (30% availability) was lowered.

Users of the natural gas transmission network used the leased entry and exit capacity for transmission of natural gas to the consumption points in the Republic of Slovenia. Entry and exit capacity was allocated in line with long-term and short-term contracts for the network access.

In 2013, at the border entry points 223 and exit points in Slovenia 310 contracts were concluded of different maturities and on different services. Some contracts were concluded by foreign companies, mostly for cross-border transmission of natural gas. Increased capacity of the transmission system after the start of operation of the parallel M2/1 Rogaška Slatina-Podlog pipeline was in 2013 to a large extent already leased by additional contracts on transmission of natural gas.

4.2.4 The congestion-management mechanisms

If demand for firm capacity at each border entry or exit point exceeds its available technical capacity, we talk about contractual congestion of a border point. In addition to contractual congestion, physical congestion occurs when the actual demand in individual point exceeds its technical capacity.

If case of contractual congestion the gas TSO at each border point initiates the congestion management mechanisms. The following procedures for eliminating contractual congestion are provided:

- Capacity surrender
- Long-term UIOLI (Use It or Lose It)
- Oversubscription & Buy-back

The gas TSO allocates additional capacities at the contractual congested interconnection point obtained on the congestion management procedures according to ranking order of listed procedures.

In recent years, the gas TSO followed the demand for transmission capacities by upgrading of the system. In the beginning of 2013, the additional technical capacities of the transmission system were provided with the beginning of the operation of the new section of parallel M2/1 pipeline from Rogaška Slatina to Podlog. Additional technical capacity at the interconnection entry point Ceršak was in 2013, to a large extent, already leased by additional transmission contracts.

Due to very high demand, on 15 November 2013, during the process of regular capacity allocation at the interconnector entry point Ceršak and interconnector exit point Rogatec contractual congestion occurred; in Ceršak for the period from 1 January 2014 to 31 December 2015, and for Rogatec from 1 January 2014 to 31 December 2014. In accordance with the rules on elimination of contractual congestion the gas TSO started to implement congestion management procedures. Contractual congestion for both above mentioned points was eliminated in December by allocation of firm and interruptible capacity within their technical capacity.

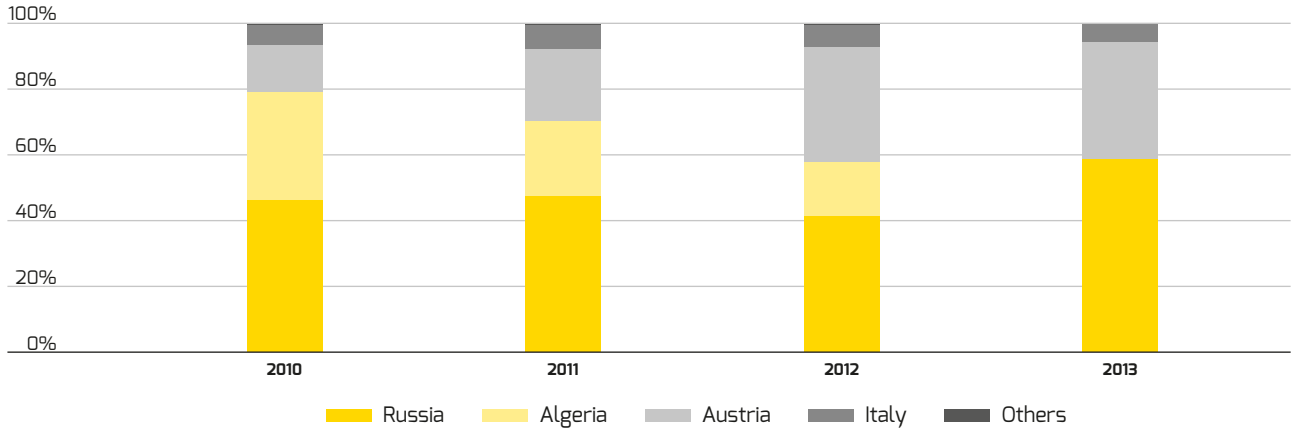
4.3 The market-based activities and competition

The positive changes in the Slovenian natural gas market in 2013 continued. The number of importers of gas increased, as well as their market shares. The competition is improving, since retail as well as wholesale HHI decreased. Also the number of switching suppliers indicates an improvement of markets competitiveness. Comparison of the natural gas prices between the European countries shows that the gas prices in Slovenia are decreasing and getting closer to the European average prices for typical industrial consumers and even more for household consumers.

4.3.1 The sources of natural gas and the wholesale market

As a natural gas consumer, Slovenia remains completely dependant on import. Traditionally, the most of natural gas comes from Russia. In 2013, the import from Russia increased significantly as the import from Algeria stopped. The import from Russia increased by almost 17%, and amounted to 58%, which is more than half of all consumed gas in Slovenia. Gas is also imported from Austria and Italy. Import from Austria is important since it represents 35% of all imported amounts. It should be noted that natural gas from Austria is purchase on the Austrian stock exchange, and its exact origin cannot be determined. Due to the physical connections of transmission system of natural gas, this gas also mainly comes from Russia. Import from Italy amounted to around 6% . Sources and percentages are shown in the next figure.

Figure 71: Sources of natural gas



Sources: Companies' data

In Table 36 final volumes of imported natural gas, which shown some significant changes, are shown for the period from 2011 to 2013. In 2013, imported gas volumes decreased by 3%. Among the suppliers, in the first place remained the company Geoplin, nevertheless, its imported gas volumes decreased by 8.5%. On the contrary, the company GEN-I increased its import in comparison to the previous year for more than five times, and, thus, became with almost 10% of all imported volumes the second largest importer of natural gas. The company Adriaplin slightly increased its import and is in the third place.

In addition to these, the importers in 2013 were also the companies Petrol, Elektro Energija and Elektro Celje Energija, but the volumes of their import are below 1%.

Table 36: Imported gas for consumption in Slovenia between 2011 and 2013 in Sm^3

Supplier	2011	2012	2013
Geoplin	829,828,077	785,313,598	685,876,146
GEN-I	–	14,947,419	80,483,314
Adriaplin	71,605,418	65,742,373	68,635,308
Petrol	3,702,201	3,557,733	3,406,576
Elektro Energija	–	–	2,735,898
Elektro Celje Energija	–	–	69,331
Total	**905,135,696**	**869,561,123**	**841,206,573**

Sources: Energy Agency and Companies' data

The participants of the wholesale market are the companies that supply natural gas to other suppliers. In the Slovenian wholesale market 5 suppliers of natural gas were active. Their market shares are shown in Table 37.

Table 37: Market shares and the HHIs relating to the wholesale gas market

Wholesale market	Share
Geoplin	66.70%
Petrol Energetika	30.85%
ENOS	0.61%
Istrabenz Plini	0.16%
Adriaplin	1.68%
Skupaj	**100%**
HHI of the wholesale market	**5,404**

Sources: Companies' data, Energy Agency

In the wholesale market, 257 million Sm^3 of natural gas were sold, which was for 45 million less than the year before. The company Geoplin decreased its market share by 5%, and the company Petrol Energetika increased by 3%. Adriaplin sold some gas also in the wholesale market in 2013. HHI increased again, and amounted to 5404, reflecting an improvement of the competitiveness of the Slovenian wholesale market.

4.3.2 The supply and the retail market

In 2013, the relationships between the suppliers in the retail market changed. The largest market share with almost 58% retained the company Geoplin, but in comparison with 2012 it lost 5.5%. Energetika Ljubljana slipped from the second to fourth place since GEN-I with 8% and Adriaplin with 7% had higher market shares. Other companies in the natural gas retail market retained their shares from the previous year.

The growing proportion of gas sold to the end consumers in the retail market is purchased on short-term contracts. In 2012, 15% of gas was purchased on short-term, and in 2013 this percentage increased to 19%.

The suppliers of natural gas were able to control all demand for natural gas and in 2013 delivered the volumes according to demand.

Table 38, which shows the market shares in the retail market of natural gas, it can be seen that HHI of the retail market changed a lot, reflecting the improvement in the competitiveness of this market on behalf of greater distribution of market shares.

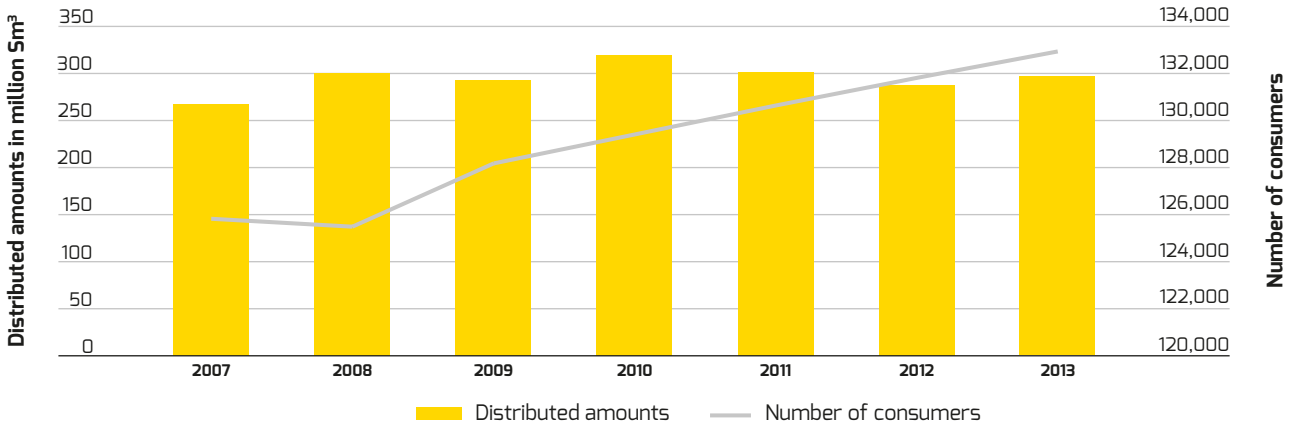
Table 38: Market shares and the HHIs relating to the natural gas retail market

Company	Share
Geoplin	57.74%
GEN-I	8.17%
Adriaplin	7.07%
Energetika Ljubljana	6.73%
Plinarna Maribor	5.29%
Petrol Energetika	3.29%
Petrol	3.13%
Energetika Celje	1.76%
Mestni Plinovodi	1.38%
Domplan	1.09%
Others	4.34%
Total	**100.00%**
HHI of the retail market	**3,551**

Sources: Companies' data, Energy Agency

Volumes of natural gas sold in the retail market were in 2013 even slightly lower. Around 65% of quantities in the retail market were sold to 134 consumers connected to the transmission network. The remaining quantities of natural gas were distributed to 132,805 consumers, which meant 1290 consumers more than in 2012. Out of these, 119,468 were household consumers, whose consumption amounted to 116 million Sm^3 of gas, and 13,337 non-household consumers with a consumption of 181 million Sm^3 of gas. Consumption on distribution network increased by 2.7%, and consumption of consumers connected directly to the transmission network decreased by 4.5%. Distributed quantities of natural gas in comparison to the numbers of consumers are shown in the next figure.

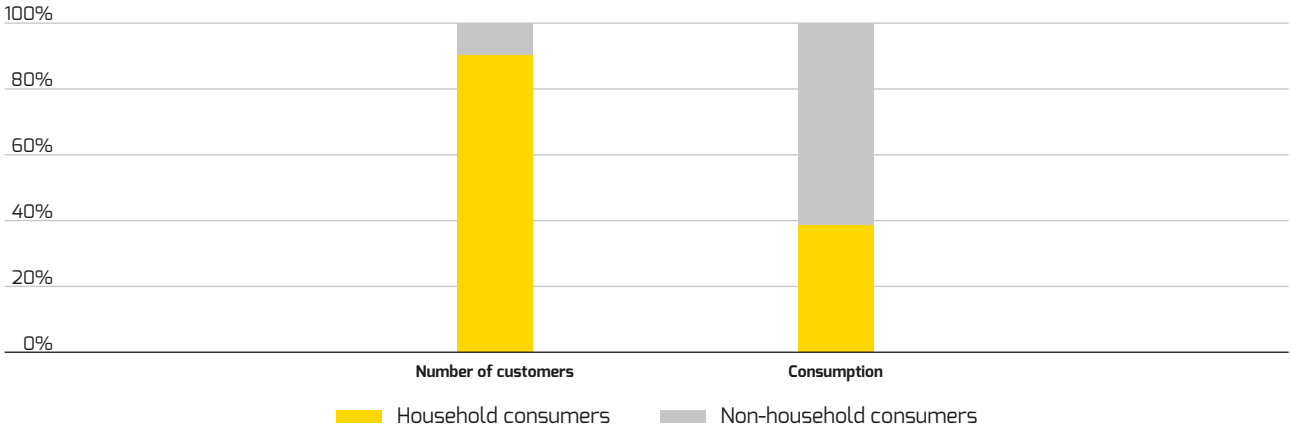
Figure 72: Distributed quantities and the number of consumers on the distribution



Sources: Companies' data

The ratio between households and non-household consumers did not change and remained 90% of households and 10% of non-household. The number of both increased by almost one percent. Consumption slightly decreased, but the ratio between their consumption remains stable. The ratio between consumers and their consumption is shown in Figure 73.

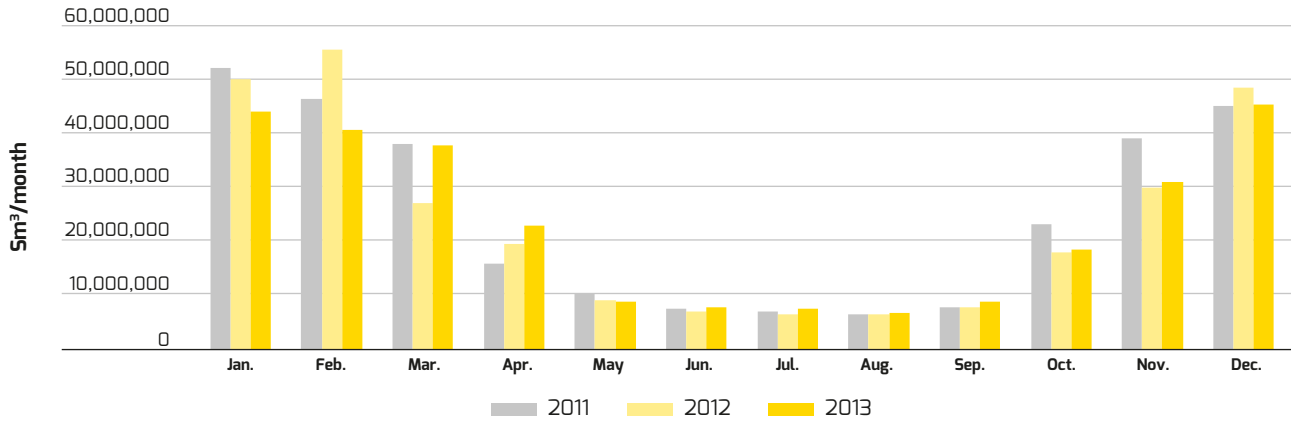
Figure 73: Ratio between the numbers of consumers connected to the distribution network and their consumption



Sources: Companies' data, Energy Agency

Trends of gas consumption on the distribution network by months is shown in the next figure.

Figure 74: Gas consumption by months for 2011–2013



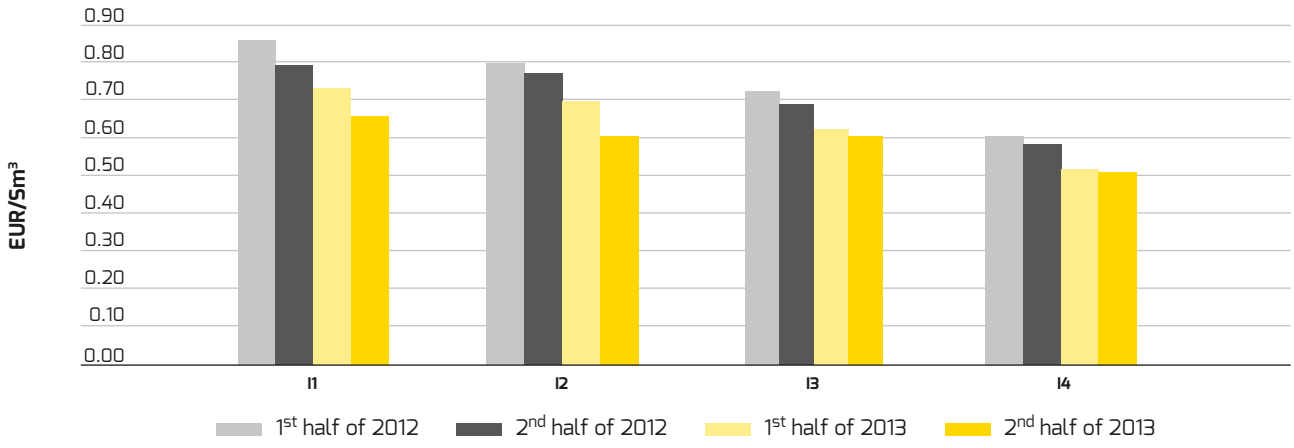
Sources: Companies' data, Energy Agency

Switchings of a supplier, which are also an indicator of competition in the market, in comparison with 2012 decreased. From the last year's record of 8.6%, in 2013, 5.5% of consumers in the retail market changed their supplier, which still is, for a small market, such as the Slovenian market of natural gas is, a very good result. There were more switchings between non-household consumers, 9.2%, and 5.1% among household consumers.

4.3.2.1 The prices for natural gas in Slovenia

In 2013, for all standard industrial consumers groups the continuation of price decrease, which began in 2012, could be observed. Fall in prices was higher for standards consumers groups with lower consumption. For a group with highest consumption, I4, the price reduction almost completely stopped. The described movements of natural gas prices is shown in Figure 75.

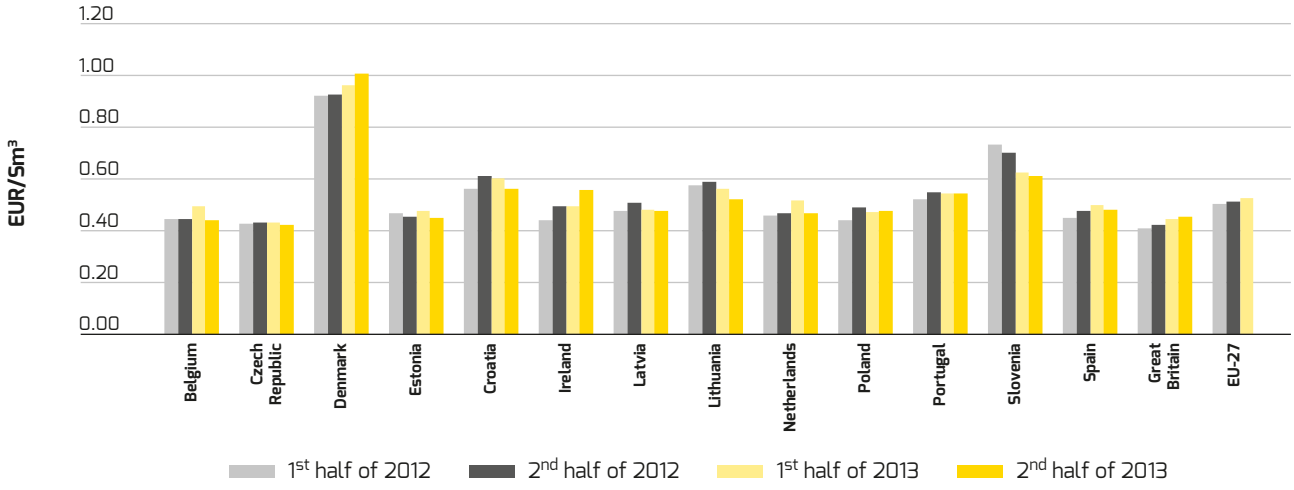
Figure 75: Final gas prices for industrial consumers including VAT and other taxes



Sources: Statistical Office of the Republic of Slovenia, Energy Agency

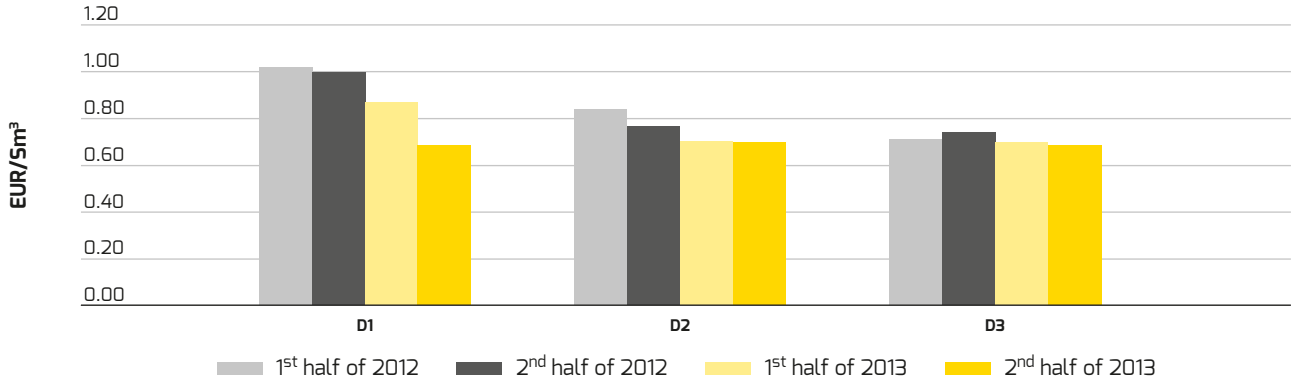
Figure 76 shows the movement of natural gas price including VAT and other taxes in 2012 and 2012 in Slovenia and EU countries for large industrial consumers of gas I3 with an annual consumption from od 264.349 do 2.643.489 Sm3. According to Eurostat, in the time of preparing this report, the data for EU-27 for the second half of 2013 was not available. In most of the EU countries, the trend of rising prices continues, which influenced also that the average EU-27 shows the growth trend. Slovenia was one of the countries in which the downward trend in price for this consumer group was noticed. Nevertheless, the price in Slovenia is still higher than in most of the EU countries.

Figure 76: Final gas prices including VAT and other taxes for typical industrial consumers I3 in Slovenia and individual EU countries



Sources: Eurostat, Energy Agency

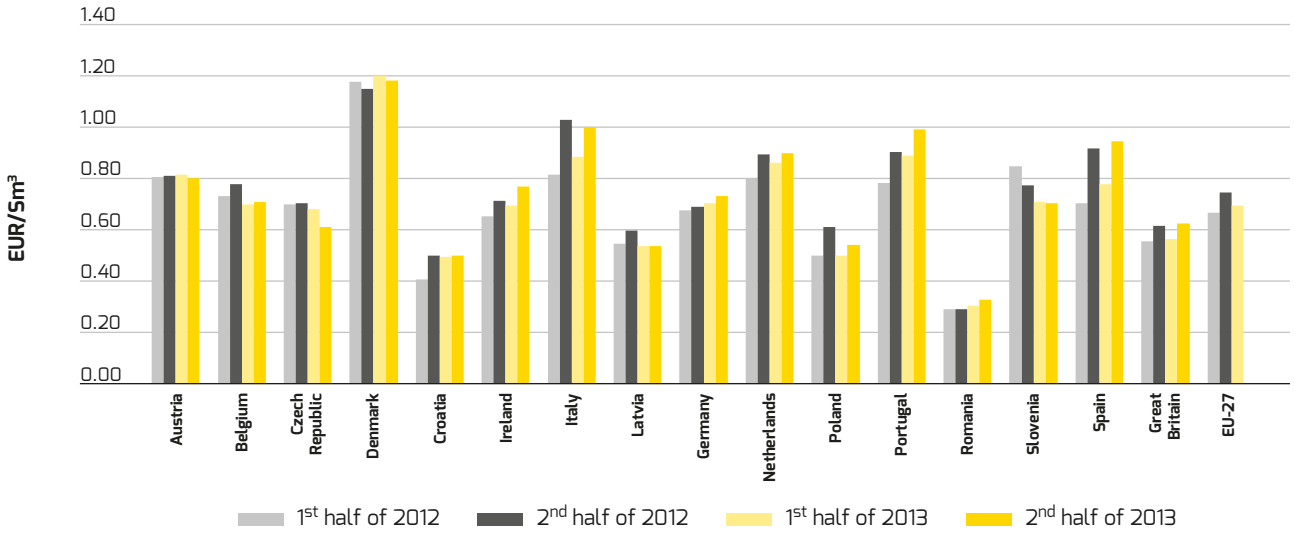
Figure 77: Final gas prices including VAT and other taxes for household consumers in Slovenia from 2012 to the second half of 2013



Sources: Statistical Office of the Republic of Slovenia, Energy Agency

Figure 77 shows movements in gas prices including VAT and other taxes for household consumers from first half of 2012 to the second half of 2013. Changes in the natural gas retail market in 2012 had the effect on falling prices also in 2013. The largest fall was noticed for the group D1, which had so far the highest prices. In the second half of 2013, due to the largest price decline for the group D1, the prices for groups D1, D2 and D3 were almost the same since for the groups D2 and D3 the minimum price decline was noticed.

Figure 78: Final gas prices including VAT and other taxes for typical household consumers D2 in Slovenia and in other EU countries



Sources: Eurostat, Energy Agency

Gas prices for typical household consumers D2 with an annual consumption between 529 Sm3 and 5287 Sm3 in Slovenia, and in most of the EU countries are shown in Figure 78. Price trends are quite different. In some countries, the price for natural gas in the relevant period increased, and in others slightly decreased. Slovenia is among those countries in which price was steadily decreasing, and came close to the average European price.

4.3.3 The measures taken to prevent any abuse of dominant position and to ensure competition

In terms of anti-trust and abuse of dominant position the same rules apply to the natural gas market as for the other types of goods. Transparency in the wholesale market is ensured through the publication of information, which are, in most cases, available on the websites of individual market participants.

In the retail market of gas the Energy Agency contributed to the transparency of prices and offers, and, thus, to the functioning of competition. For this purpose the Energy Agency developed a web application that enables comparison of offers for natural gas. Easier price comparison had a positive effects on the competitiveness of the retail market.

In 2013, the Slovenian Competition Protection Agency launched the infringement procedure

concerning Article 6 of Prevention of Restriction of Competition Law (ZPOmK-1) and Article 101 of the Treaty on the Functioning of the European Union against the gas suppliers – the companies Adriaplin, d.o.o., Domplan, d.d., Energetika Celje, javno podjetje, Energetika Ljubljana, d.o.o., Istrabenz plini d.o.o., Javno podjetje Komunala Slovenj Gradec, d.o.o., Javno podjetje Plinovod Sevnica, Jeko-In, javno komunalno podjetje, d.o.o., JP Komunalno podjetje Vrhnika, d.o.o., Komunalno podjetje Velenje, d.o.o., Loška komunala, d.d., Škofja Loka, Mestni plinovodi d.o.o., Petrol, Slovenska energetska družba, d.d., Petrol Energetika d.o.o., Plinarna Maribor, d.o.o., Plinstal, d.d. and Economic Interest Group for Distribution of Natural Gas in Slovenia (GIZ DZP). An interest was identified that the suppliers and GIZ DZP exchanged commercially sensitive information and agreed upon, or used harmonized approach in determining gas prices for household consumers, which represents an agreement or concerted practice that have as their object or effect the prevention, restriction or distortion the competition within the Republic of Slovenia and the common European market.

In addition, in 2013 the Slovenian Competition Protection Agency started the infringement procedure concerning Article 9 of ZPOmK-1 and Article 102 of PDEU against the company Geoplin, d.o.o., Ljubljana, with regard to the abuse of dominant position in the natural gas supply market for the supply of consumers connected directly to the transmission network in the Republic of Slovenia, and consequently in a substantial part of the common European market, in particular by concluding long-term contracts on gas supply, in which are predetermined: pre-agreed quantities of the supplied gas for the entire period of the contract, the obligations to take minimum quantities of natural gas (determined by signing the contract) for the entire period of the contract, penalties and costs for quantities of gas not taken below the minimum specified in the contract, all of which prevent competitors or impede market access.

In 2013, the Slovenian Competition Protection Agency regarding the above mentioned proceedings did not adopt a decision nor take an action against any of the participants in the natural gas market.

4.3.4 The deciding on disputes and appeals

In 2013, the Energy Agency received two requests to decide the area of natural gas. The client's request related to access to the network was rejected, and in the second case by means of the decision the infringement of the general condition of supply and consumption of the distribution system operator was identified.

4.3.5 Ensuring compliance with legislation

In accordance with Article 31.e of the Energy Act, the Energy Agency in the process of monitoring of the independent transmission operator (ITO) gave approvals to commercial and financial contracts with the vertically integrated undertakings. The Energy Agency also received two ITO's notices related to the conditions and identities of the persons responsible for management. After examining each case, the Energy Agency did not identified the reasons for negative response.

The Energy Agency also issued the approval to the updated Compliance programme, which contribute to ensure the independence of ITO.

The compliance officer submitted to the Energy Agency the Report on the implementation of the compliance programme in 2013, from which it appears that no breaches with regard to the programme were identified.

In 2013, the Energy Agency continued to monitor the implementation of the rules of the gas TSO under the Regulation (EC) No 715 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005, and established that all requirements were met.

4.4 Security of supply

In 2013, natural gas supply in Slovenia was not at risk. During the whole year, the consumers on the transmission and distribution networks had a reliable gas supply.

In accordance with the legislation, the security of gas supply was under the ministry responsible for energy.

In 2013, the Energy Agency, as expected competent authority, in line with Regulation (EC) No 994 prepared the drafts of Preventive Action Plan and Emergency Plan that after the change of energy legislation and harmonization of their contents became new tools for security of gas supply.

4.5 Consumers protection

The household consumer of natural gas buys energy as individual and uses it for own domestic use, which excludes business activities. His rights are protected with the regulations regulating the energy market and also with the Consumer Protection Act and Consumer Protection against Unfair Commercial Practices Act.

The companies and other organisations providing public services and commodities to the customers in Slovenia are obliged to ensure a regular and high-quality provision of services, and strive to appropriately develop and improve the service quality.

On the basis of Decree on functioning of the natural gas market, Act determining the methodology for setting general conditions for the supply and consumption of natural gas from the distribution network and General Conditions for the Supply and Consumption of Electricity from the Distribution Network, a supplier has to inform a household consumer, prior to signing a supply contract, about the contractual terms and conditions. In addition, a household customer has to be informed, in due time, about any intended change to the contractual terms and conditions (above all, about a price increase) and about the right to terminate the contract.

The above mentioned documents also determine customer-protection measures. These refer to the content of the contract between a supplier and a customer, appropriate information about the intended changes to the contract or the price data, the consumer's right to switch supplier free of charge, different payment modes, and deciding on the consumers' complaints.

Household consumers have the right to choose and change supplier of natural gas. The Energy Agency offers on its website an application Comparison of Suppliers, which provides information on suppliers of natural gas in individual geographical areas and allows the calculation of gas prices and other information by which household consumer can choose a supplier. Switching can be done without any costs for a consumer. The change of supplier is carried out on the first day of the month, if a new supply contract is registered with the system operator to whose network a household customer is connected, up to tenth day of the preceding month.

In 2013, 1251 household consumers were disconnected, 1207 of them due to unpaid the use-of-network price. Because the supplier ceased to exist, 24 consumers were disconnected, and 20 because of other reasons. In 2013, the distribution was stopped permanently to 734 consumers, out of which 679 were household consumers, and that was for 33% less than the year before. Despite the non-payment of bills, the system operators did not disconnect 219 household consumers, 3 of them were referring to the rights of not being disconnecting because their lives and health would be endangered.

4.5.1 Protection of vulnerable consumers

Protection of vulnerable consumers is one of the most important forms of consumer protection, and it is regulated by the EA. This act determines that a system operator should not stop the amount of gas below the limit that is, with respect to circumstances, necessary so that the life and health of a consumer, and the persons living with the consumer, are not threatened.

In line with the provision of Decree on functioning of the natural gas market a household consumer who has no means of subsistence and therefore his life and health or life and health of persons living with him, exercising the right to maintain the energy supply, if he is the recipient of social welfare. This right can be exercised between 1 October to 30 April, but only for a time when bad finance situation can be proved. All the supplier's costs arising from the situation in which the supply should not be stopped are covered by the revenues from the use-of-network price. The supplier for costs, which are incurred for all further deliveries, invoices system operator, to whom a consumer is connected. In 2013, 3 consumers exercised this right.

4.5.2 The right to appeal, or the right to legal redress, and the setting of disputes

In Slovenia, household consumers have the right to appeal, or redress and to set of dispute. In accordance with the Energy Act, a network user also has the right to ask the Energy Agency to decide on the user's request, previously addressed to the system operator that the operator rejected, or failed to decide on, and that relates to the network access. This applies also for the charged use-of-network price, an alleged breach of the general supply conditions and the system operating instructions, identified imbalances, or the status of a specific consumer. Against the Energy Agency's decisions it is possible to make an appeal to the Ministry of Infrastructure and Spatial Planning, or in case of the Energy Agency's decision- making process, relating to the network access, initiate legal proceedings in the Administrative Court.

In 2013, the distribution system operators of natural gas received 3486 complaints. Household consumers addressed 2759 complaints, which was 21% less than in 2012. Most of the complaints were related to switching of supplier, invoicing and metering. A total of 899 complaints were unjustified, which was 33% of all complaints received. A detailed presentation of complaints by subject is given in Table 39.

In accordance with the provisions from the General Conditions for the Supply and Consumption of Electricity from the Distribution Network, one of the key elements of a supply contract made with a consumer is an agreement on the mode of dispute-settling arising from the contractual relationship. The consumers also have an option to express a comment or disagreement relating to the conduct, i.e., the operation of a gas supplier. The supplier is obliged to examine the consumer's comment and reply to it.

Suppliers of natural gas in 2013 dealt with a total of 5943 complaints, appeals and disagreement of consumers, of which 4536 were household consumers. Most complaints were related to invoicing (55%) and supplier switching (26%). 1099 complaints were rejected as unjustified, which was 24% of all complaints.

Table 39: Complaints of gas consumers to DSO in 2013

Numbers of all complaints	**2,759**
Connection procedure	6
Planned interruption of supply	0
Unplanned interruption of supply	10
Network charge	59
Metering	752
General conditions	13
Invoice	798
Switching	1,060
Others	61
Unjustified complaints	899

Source: Energy Agency

Table 40: Complaints of household gas consumers to suppliers in 2013

Total number of complaints by household consumers	**4,536**
Supply terms	163
Contract terms	438
Price of gas	170
Invoice	2,482
Disconnection due to non-payment	31
Supplier switching	1,202
Technical reasons	46
Other reasons	4
Unjustified complaints	1,099

Source: Energy Agency

For handling the disputes between household consumer and his supplier, the suppliers alone or within the Association are obliged to provide transparent, simple and inexpensive procedures for dealing with complaints. For this purpose, an independent and impartial person or several persons responsible for the treatment of complaints and to whom household consumers can address their complaints in relation to alleged violations of the supplier in implementing a natural gas supply contract. If the consumer disagrees with the decision, he may bring an action before the court. Possible violations of the general rules for the protection of household consumers in Slovenia are monitored and appropriately sanctioned also by the Market Inspectorate.

In 2013, the person appointed received 7 new complaints from the household consumers, 3 complaints were received already in 2012, but the procedures were not concluded. All complaints, received in 2013, were concluded, 5 of which were rejected as unjustifiable, 2 were rejected, 2 pro-

cedures were stopped and in one procedure an agreement was reached on peaceful settlement of the dispute. In 2013, household consumers did not enforce their claims in front of the court.

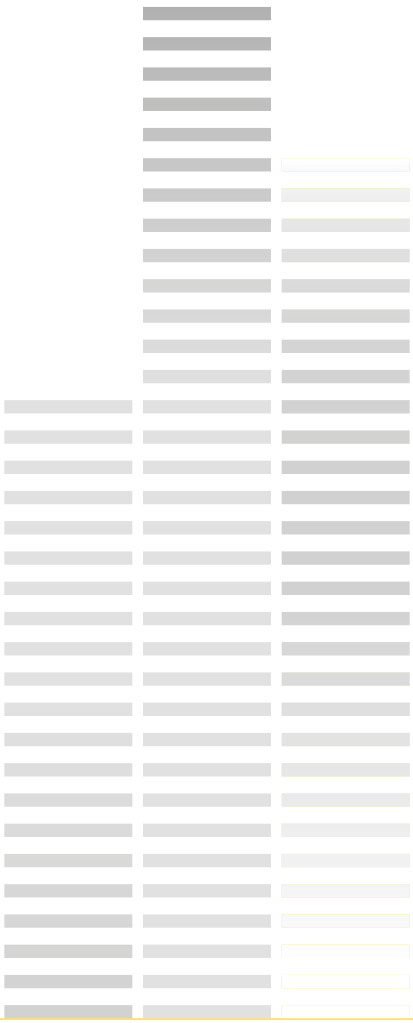
4.5.3 The right to compensation

In accordance with the Energy Act the supplier itself or together with other suppliers within the interest group shall establish a system of refunds or compensation for customers in case of the breaches of supply obligations. Customer has a right for compensation in accordance with the amount of damages, severity of the offense and degree of responsibility.

Decree on functioning of the natural gas market provides as mandatory element of the contract between the supplier and a household consumer the rights to compensation and refund arrangements, which apply in cases if a quality of supply does not meet the contractually agreed value.

4.5.4 Publication of prices

All the suppliers of natural gas were publishing gas prices on their websites accessible without a special password. In 2013 all prices were without any restrictions available also through the web application Comparison of Supplier. The gas prices for household consumers are set independently by the suppliers, while the use-of-network prices are charged for by the gas distribution system operators on the basis of the published price lists in the Official Gazette issued in line with the Energy Act and methodologies for determining and charging network charge.



5

All around us everything is spinning, everythnig is moving, everywhere is energy.

Nikola Tesla
(scientists and inventor, 1856–1943)

Heat supply

District heating in Slovenia is defined as a local optional public service; under certain legal requirements may also be implemented as a commercial activity of supply of end customers. Heat supply includes distribution or the supply of heat or cold from the distribution networks, used for heating or cooling, or domestic hot water.

Data that follow present the situation in the area of district heating in the Republic of Slovenia within the scope of energy activities of the registered holders of the licences to distribute heat, or licences to produce heat for district heating of above 1 MW.

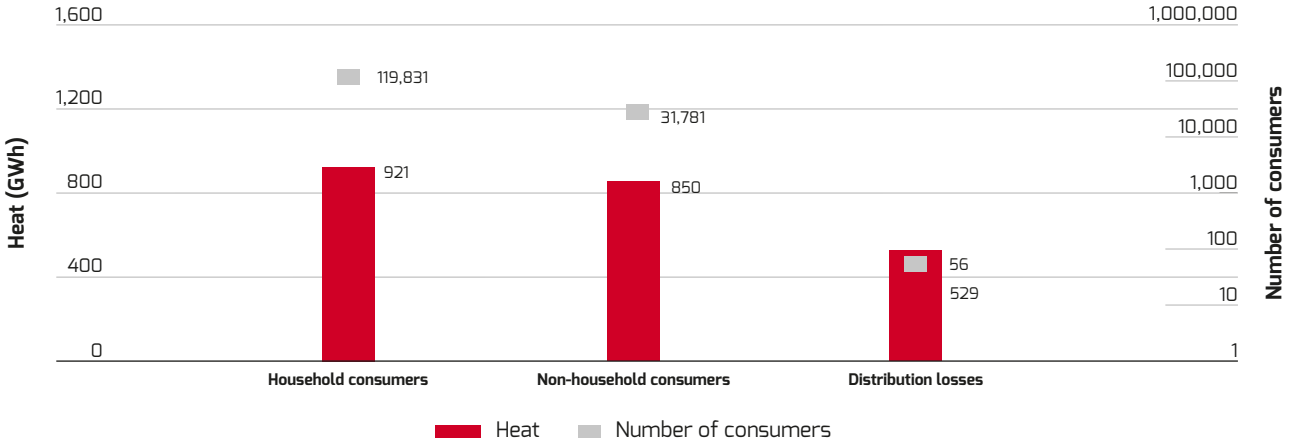
5.1 Heat supply for district heating

In Slovenia in 2013, 69 of the 108 licence holders, active in 54 municipalities, were involved in heat supply. Of these, 57 companies were involved in both - heat distribution for district heating and heat production for district heating of above 1 MW; 6 companies were only involved in the distribution, and 6 companies only produced heat. Still only one large system with a cooling aggregate power of the 965 kW operates in the City Municipalitiy of Velenje.

For the purpose of heat supply, licensed producers of heat for district heating and for the supply to industry, with the facilities' installed power of above 1 MW, produced 2553.5 GWh of heat and 815.6 GWh of electricity, or 637.1 GWh of electricity at the busbars of the cogeneration processes. The largest share of heat 40.0% or 920.7 GWh – was used for the supply to 119,831 household customers; 850.3 GWh, or 37%, were used for the supply to industrial and other non-household customers. Heat losses incurred during the distribution amounted to 23% of all the heat delivered to the distribution networks. The difference between the produced and supplied heat to the distribution networks and heat losses present the share of thermal energy, which was used in industrial processes of producers or suppliers by themselves.

Heat consumption by the types of consumers and numbers of consumers are shown in Figure 79.

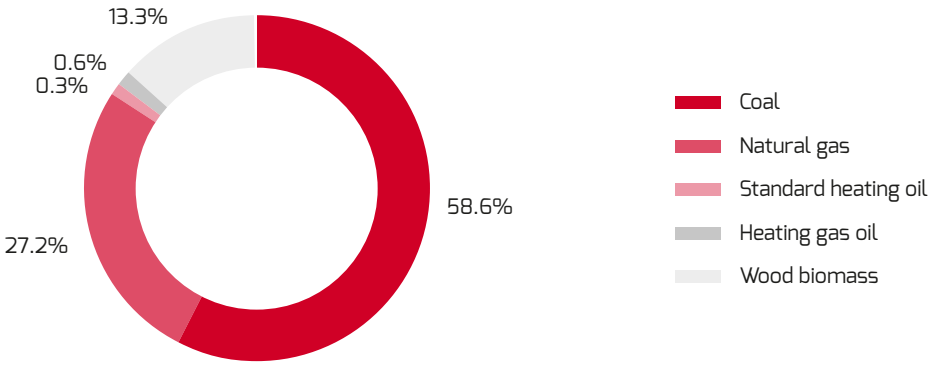
Figure 79: Heat consumption by the types of consumers and numbers of consumers



Source: Energy Agency

In the structure of used primary energy sources for the heat production, coal covers 58.6%, natural gas 27.2% and heating oil 0.6%. Other primary renewable sources of energy, such as wood biomass and others cover 13.3% of the energy sources.

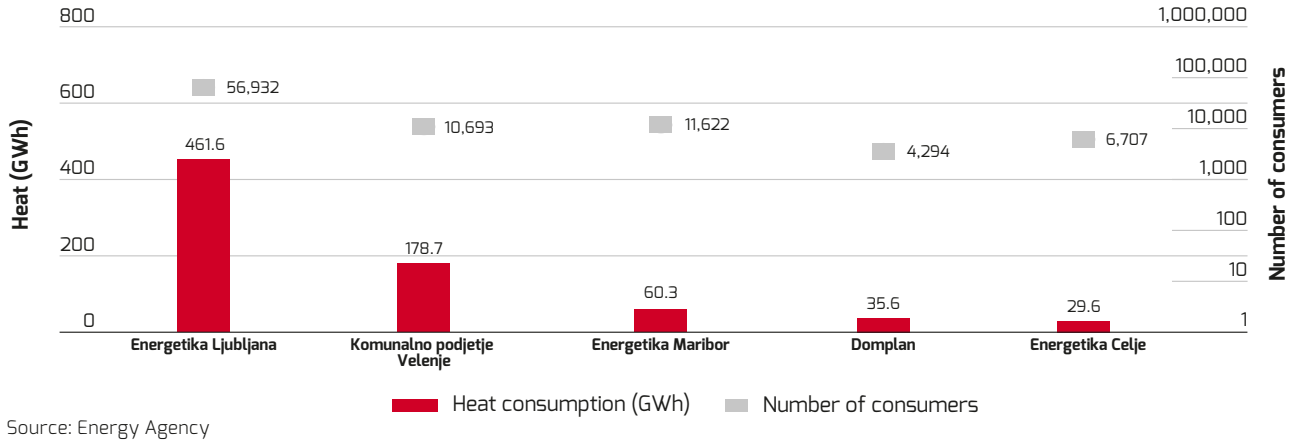
Figure 80: Structure of the primary energy sources for the production of heat for district heating



Source: Energy Agency

In 2013, the 5 largest heat-distribution companies supplied 59.5% of all the households, distributing 83.2% of the heat produced for district heating. Figure 81 shows the distributed amounts of heat to the household customers and the number of customers, which were supplied by the 5 largest distribution companies.

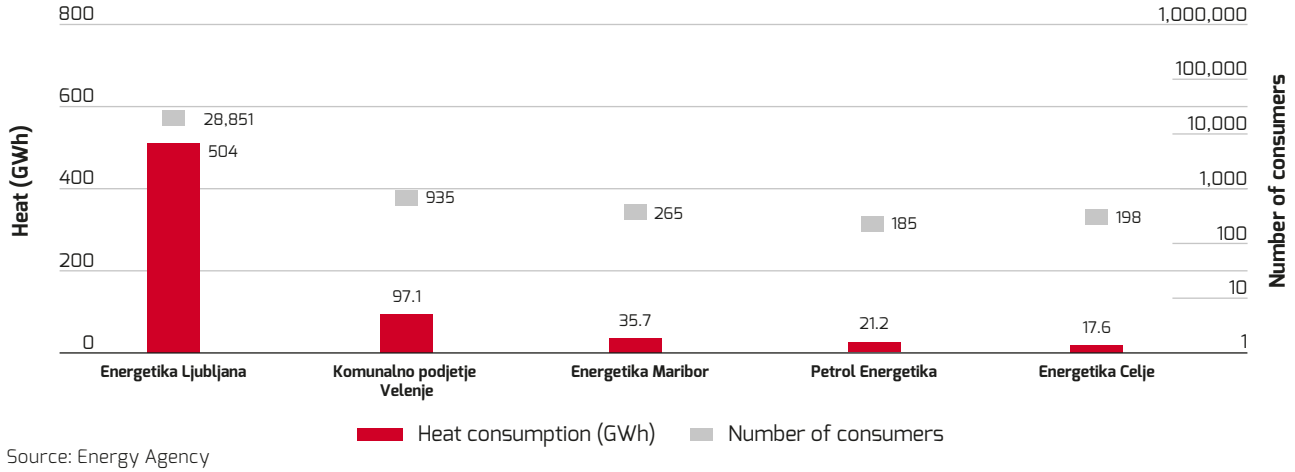
Figure 81: Largest distributors of heat to households in 2013



Source: Energy Agency

The 5 largest distribution companies supplied heat to 95.8% of all non-household customers, distributing to them as much as 79.5% of the required heat (Figure 82).

Figure 82: Largest distributors of heat to non-households in 2013

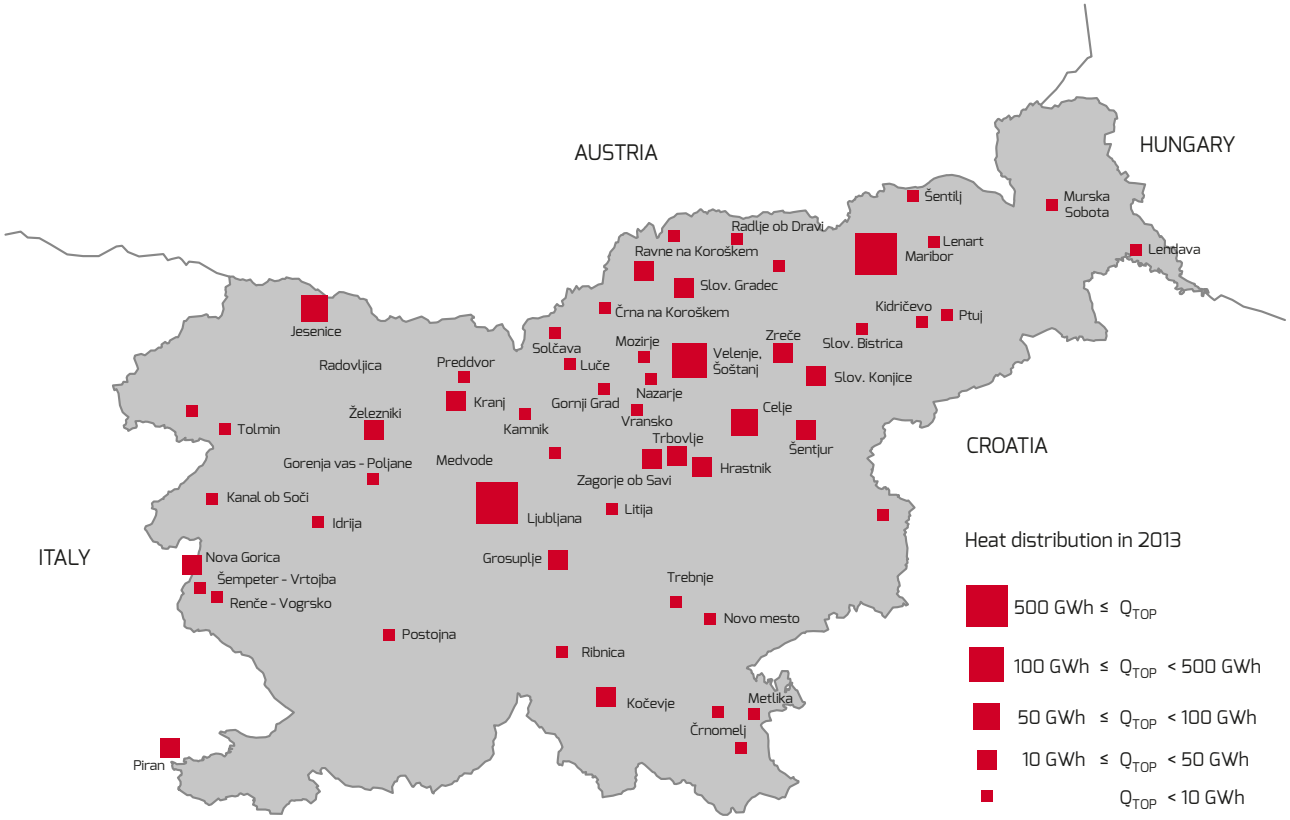


Source: Energy Agency

5.2 The distribution network

In 2013, the service of heat distribution was, in the Republic of Slovenia, carried out by 79 licence holders. The heat distribution networks were set up in 54 of the 211 Slovenian municipalities, their total length being 752.9 kilometres. Large system of district cooling is still carried out only in the City Municipality of Velenje, the distribution network is 600 metres long. The next Figure 83 shows the dispersion of distribution networks and the amount of distributed heat by individual municipalities.

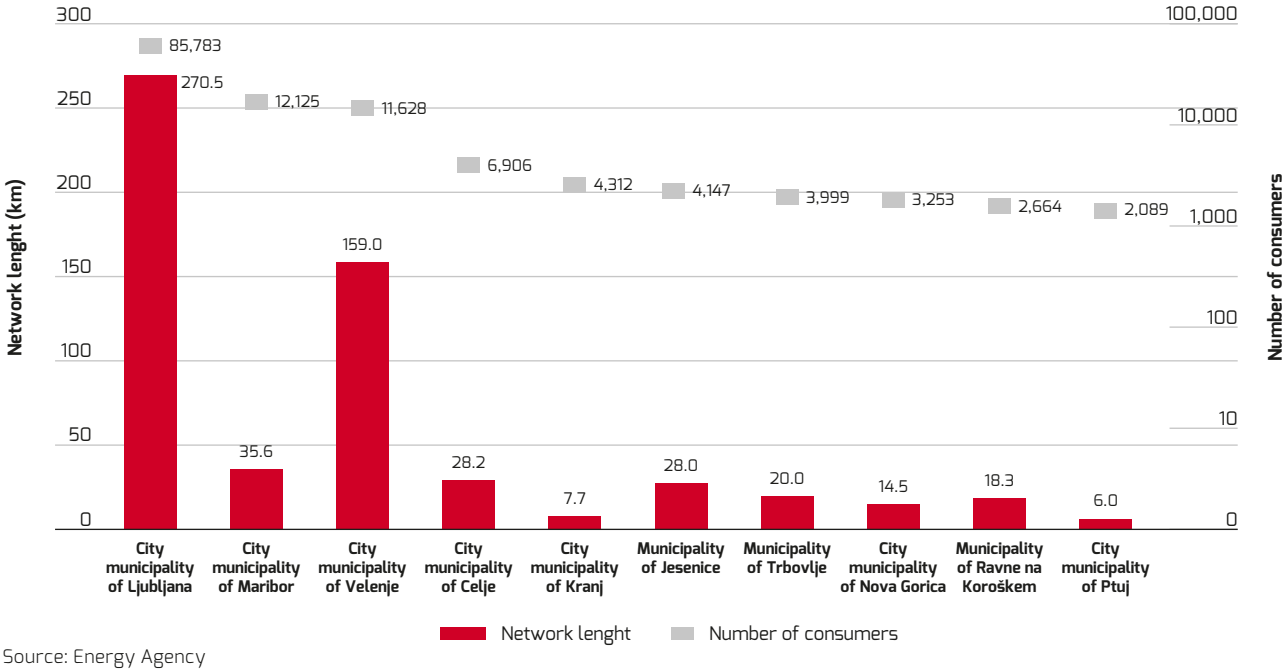
Figure 83: Heat distribution networks in Slovenia in 2013



Source: Energy Agency

With respect to the temperature regime of the operations of individual networks, the networks are the warm-water networks, hot-water networks and steam distribution networks. Warm-water networks and hot-water networks cover 97.7%, and steam networks cover 2.3% of the total distribution networks. The municipalities with the longest networks are Ljubljana (270.5 kilometres of hot-water and warm-water network) and Velenje, together with Šoštanj, (159 kilometres of warm-water network). The next figure shows the lengths of the 10 largest heat distribution networks in individual municipalities, and the numbers of connected users.

Figure 84: Length of heat distribution networks by municipality, and the numbers of connected users in 2013



Source: Energy Agency

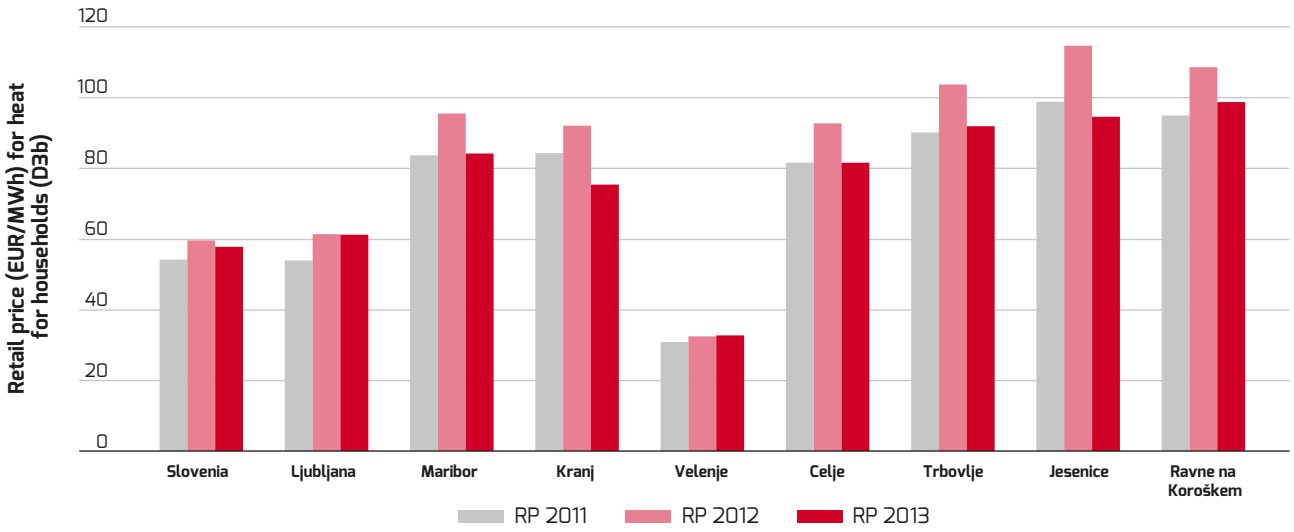
5.3 The prices for heat

From the price lists of the selected business entities for heat production and supply the data on average retail prices of heat from district heating distribution networks are summarized; the data are valid for standard customer group - households – D3b in selected Slovenian municipalities, in which the distributed heat represented 40% of the total distributed heat for the supply from the distribution network.

The standard consumer group is a group with a connected load of 10 kW and an annual consumption of 34.9 MWh, using heat for hot water and central heating.

The average retail prices for heat from the distribution systems relating to the selected Slovenian municipalities are shown in Figure 85. Prices displayed are calculated as the weighted average retail prices in comparison with the number of consumers; at the same time the average retail price of heat from the distribution networks for the entire territory of the Republic of Slovenia is presented. The graph shows that the prices of heat for household on average lowered for 9.1% according to 2012, only for consumers in the area of the municipalities of Velenje and Šoštanj the prices were higher, in the amount of 0.8%.

Figure 85: Trends in the average retail prices of district heating for households in the selected Slovenian municipalities for 2011–2013



Source: Statistical office of the Republic of Slovenia

5.4 The Energy Agency's activities related to district heating

5.4.1 System operation instructions for the heat distribution network

In 2013, the Energy Agency issued 4 approvals to the system operating instructions for the heat distribution network for the geographical areas of the Municipality of Nazarje, the Municipality of Miren – Kostanjevica – settlement of Miren, the Municipality of Mirna Peč – on buildings of Tone Pavček Primary School and Kindergarten Cepetavček and on buildings of previous primary school and kindergarten, as well as for the geographical area of the Municipality of Ptuj.

The public service providers of district heating in the municipalities of Kidričevo, Kamnik and Slovenske Konjice (Loče) also in 2013 did not submit to the Energy Agency the evidences on legal arrangements, therefore, the approvals to the system operation instructions for those geographical areas could not be issued.

5.4.2 Record of appeals

The Energy Agency call upon the municipalities, in which public service of district heating, or gas supply, except for natural gas, is performed, to provide information on number of complaints against the decisions to issue or refuse a connection approval, which were in 2013 decided by the Mayor.

On the basis of the received notifications, the Energy Agency establishes that in 2013 the Municipality of Jesenice received one such appeal, while the other 49 municipalities did not receive complaints against decisions on issuing or refusal of connection to the heat distribution network or other energy gas.

5.4.3 Other activities related to district heating

The Energy Agency had received many questions, which, inter alia, where related to the operation of district heating, heat supply pricing and billing and heat supply methodology, as well as issues concerning heat supply to the multi-apartment buildings. In the latter case, the Energy Agency sent its opinion to the responsible ministry.

Appendix

List of figures, List of tables, List of abbreviations and acronyms

List of figures

List of tables

List of abbreviations and acronyms

ACER	Agency for the Cooperation of Energy Regulators
CBTC	Cross-Border Transmission Capacities
CEER	Council of European Energy Regulators
CEE	Central-East Europe (region)
CGS	Combined Gas and Steam
CHP	Combined Heat and Power
CSLOeX	Hourly Index
DSO	Distribution System Operator
DTS	distribution-transformer station
EA	Energy Act, the Official Gazette of the RS, 27/07 (EZ-UPB2), 70/08 (EZ-C), 22/10 (EZ-D))
EA-1	the Official Gazette of the RS 17/14 (EZ-1)
EEX	European Energy Exchange AG, Leipzig
ENTSO	European Network of Transmission System Operators
GDP	Gross Domestic Product
GPP	Gas Power Plant
GoO	Guarantee of the Origin
HHI	Herfindahl-Hirschman index relating to market concentration
HHP	Hydroelectric Power Plant
HV	High Voltage
NPP	Nuclear Power Plant
LW	Low Voltage
MRS	Metering-Regulation Station
MV	Medium Voltage
NPP	Nuclear Power Plant
NRA	National Regulatory Authority
NTC	Net Transfer Capacity
PCI	Project of Common Interest
P_+ and P_-	Main energy imbalance prices
PSPP	Pumped-Storage Power Plant
RECS	Renewable Energy Certificate System
REMIT	Regulation on wholesale Energy Market Integrity and Transparency
RES	Renewable Energy Sources
RS	Republic of Slovenia
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SEE	South-East Europe (electricity region)
SLOeX	organised electricity market index
SODO	Electricity Distribution System Operator, d.o.o.
TPP	Thermoelectric Power Plant
TSO	Transmission System Operator
UIOLI	Use It or Lose It
VAT	Value Added Tax

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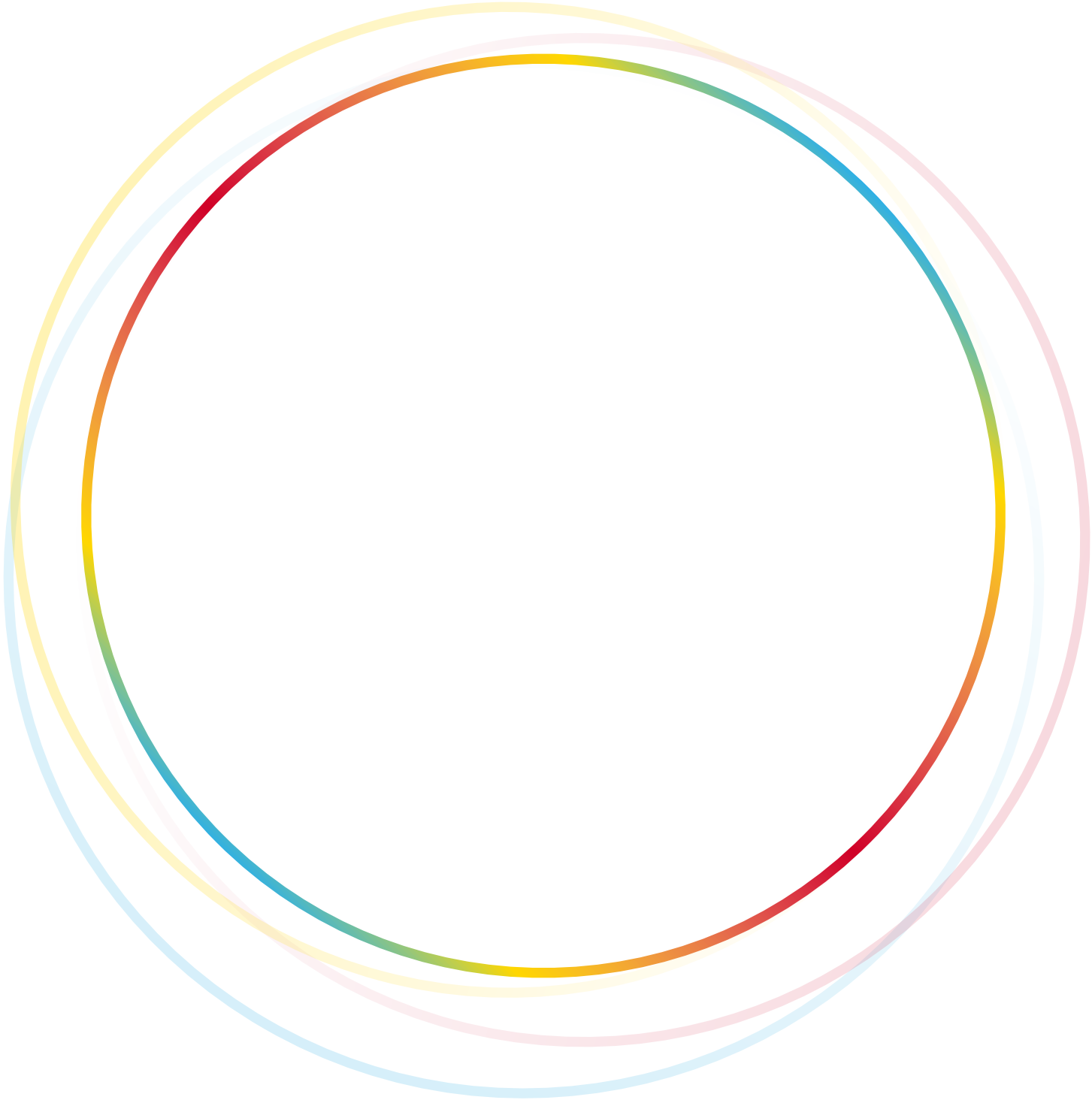

Everything is Energy!