Javna agencija RS za energijo

REPORT ON THE ENERGY SECTOR IN SLOVENIA FOR 2011

The Council of the Energy Agency of the Republic of Slovenia adopted this report at its 28th regular session, on 28 June 2012. The Government of the Republic of Slovenia gave its approval to this report at its 24th regular session, on 26 July 2011.

1 INTRODUCTION

Report on Energy Sector in Slovenia, which is every year prepared by the Energy Agency of the Republic of Slovenia – Slovenian energy regulator – provides the content, stipulated by the Energy Act, as well as the issues on the state of the Slovenian energy market for the purpose of reporting to Commission of the European Communities.

A Slovenian electricity market operates and develops in accordance with EU directives and current Energy Act. The change of national legislation that would implement the latest EU directives has not yet been fully realized. Expert public was also in anticipation of the new National Energy Program, but the situation in the country unfortunately halted the decision making process and adoption of this document. Irrespective to the situation, certain provisions of EU regulations, which enable the functioning of the EU internal market, came into force. Along with the market coupling of Slovenia and Italy - this will be the target model for the entire EU – trading on the Slovenian electricity exchange revived.

Despite important changes dictated by the market rules of electricity supply, the reliability and security of supply were on the level that could be, compared with other EU countries, identified as of high quality. In comparison with previous year the consumption of electricity increased by 4.1%, while electricity production due to bad hydrology lowered by 2.9%. Spin-offs of the supply companies that operated within distribution companies was carried out from September to December 2011. Costumers' awareness and activity, which in 2011 performed far more switching then ever – 39.135 – influenced suppliers, which were more active as well. In the retail market 16 suppliers were active. In the total price of electricity for household costumers in 2011 share for the use-of network and share for electricity increased. In the first half of 2011, the final price of electricity for household customers with an annual consumption from 2500 to

5000 kWh in Slovenia amounted to 81% of average EU-27, and for industrial customers to 89% of average EU-27.

Investments in electricity generation in 2011 show an environmental oriented policy. Support scheme to subsidize the production of electricity from renewable energy sources and combined heat and power in 2011 continued to encourage investors to build these plants. The most interest was for investments in solar and biogas power plants. The total installed capacity of these plants has already exceeded 90 MW, which is more than it was projected in the national action plan for renewable sources.

The electricity area was marked significantly by the beginning of construction one of the major transmission project in recent years – 400 kV overhead transmission line Krško–Beričevo, which has been subject to extensive spatial issues, and by which the Slovenian 400 kV network will be looped.

The natural gas market was in 2011 marked by lower demand of gas, because domestic consumption decreased by 13%. The year 2011 was the first year of a new three-year regulatory period for determining the network charge for the gas transmission network, by which the level of predictability of operation of the TSO and infrastructure investments increased.

The TSO (Plinovodi, d.o.o) continued with intensive construction of a new backbone of the transmission network, which will in coming years significantly increase the capacity of the network.

Gas prices in 2011 exceeded the highest prices from 2008, however, there were fewer supplier switches than the year before, which reflects less active gas market.

In comparison with previous year, imports of natural gas from Russia remained unchanged, while imports from Algeria, according to the previous year declined due to increasing imports from Austria.

Gas prices for household customers in 2011 reached a peak level of the last two years, which is a general trend in the EU. In Slovenia and for example Austria, the price of natural gas for household customers increased by more than 20%, and the year before the percentage of growth was the same. The most important reason for raising gas prices are increases in oil and oil products prices in world markets. To prices of oil and oil products the prices of imported gas are usually bound by long-term contracts, which is also the case for most customers in Slovenia.

In recent years, when the supply of natural gas from the Middle and Far East has increased, the difference in price between prices of major suppliers, who supply gas on the basis of long-term contracts (prices tied to oil and oil products), and those suppliers, which supply gas also on the basis of long-term contracts tied to stock markets price movements, increased.

Prices for district heating in 2011 increased on average by 8.3% compared with 2010. The largest proportion of the total thermal energy produced in 2011 was intended to supply household customers.

Data collected in this report are comprehensive and concise overview of Slovene energy sector in 2011. I wish you will find in it a lot of interesting, and above all useful information.

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Director

2 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. 2012)	2,055,496
Area	20,273 km^2
Number of electricity customers (31. 12. 2011)	925,283
Number of natural – gas customers (31. 12. 2011)	130,293
Gross domestic product (GDP)	35,639 million euros
Increase in GDP	-0.2 %
Inflation	2.0 %
GDP per person	17,361 EUR

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

Electricity

Installed capacity	**3,408 MW**
Hydroelectric power plants	1,069 MW
Thermoelectric power plants	1,280 MW
Nuclear power plant	696 MW
Small producers	363 MW
Production of electricity	**14,878 GWh**
Hydroelectric power plants	3,362 GWh
Thermoelectric power plants	4,787 GWh
Nuclear power plant	5,899 GWh
Small producers	830 GWh
Length of the transmission network	**2,603 km**
– 400 kV	508 km
– 220 kV	328 km
– 110 kV	1,755 km
– cables	12 km
Length of the distribution networks	**65,576 km**
– 110 kV	835 km
– 35, 20 in 10 kV	17,571 km
– 0,4 kV	45,656 km
– Street lighting	1,514 km
Consumption of electricity	**12,682 GWh**
PSPP Avče	193 GWh
Business customers	9,278 GWh
Household customers	3,211 GWh
Annual consumption per person	**6,076 kWh**
Average household consumption per month	**325 kWh**

* The table includes the entire installed capacity and the production of the Krško Nuclear Power Plant; however, in line with the international agreement, only half of the electricity produced by this power plant is available to Slovenia.

Sources: Companies' data

Natural gas

Length of the transmission network	**1,054 km**	
– more than 16 bar		845 km
– less than bar		209 km
Length of the distribution networks	**4,305 km**	
(up to 16 bar)	**905 million of Sm^3**	
Consumption of natural gas		301 million of Sm^3
Customers on the distribution networks		604 million of Sm^3
Industrial customers	**440 Sm^3**	
Annual consumption per person		

Sources: Companies' data

2.2 The development in the electricity market

Despite the events that took place after a nuclear accident in Fukusima and Germany forecast of the gradual closure of nuclear power plants, the Slovenian wholesale market has not experienced major changes. Prices on the Slovenian stock exchange BSP were higher than those on the German EEX due to its direct link to the Italian market, where prices are still the highest in Europe, but had been stable since March 2011. Conditions were positive due to the situations on future markets in the European Union (hereinafter referred to as EU). Prices for electricity for years after 2012 started to fall steadily after the nuclear accident in Fukusima in March, and at the end of 2011 reached the level of prices before the event in Fukusima.

Increasing transparency in the market and the negative economic trends stimulated Slovenian costumers to more active trading. More transparent and effective trading in the retail market was influenced by legally required separation of network and commercial activities. Spinoffs of the supply companies that operated within distribution companies were carried out from September to December 2011. Costumers' awareness and activity, which in 2011 performed far more switching then ever – 39,135 – influenced suppliers, which were more active as well.

The support scheme to subsidize the production of electricity from the renewable sources and combined heat and power (hereinafter referred to as RES and CHP) in 2011 encouraged investors to build these plants. The greatest interest was to build solar power plants and biogas power plants; a total capacity reached almost 92 MW. Thus, over the years, the number and the capacity of decentralized production of energy are increasing. This situation demands new tasks for providing quality and reliability of the electricity supply. For this purpose, the network operators were active in preparing the smart grids projects to enable the most efficient operation of the network, and to develop new services, which will provide market activities.

The new investment in the transmission network - phase-shifting transformer – has already shown a positive effect for the security of supply in the region, whilst allowing larger commercial flows to Italy, where in 2011 there again a shortage of electricity occurred.

2.3 The development in the natural gas market

In 2011 the natural gas market was characterized by lower demand for gas. Domestic consumption decreased by 13%, at which the consumption of industrial customers connected to the transmission network fell from 730 million Sm^3 to 604 Sm^3. End customers on distribution network consumed 19 million Sm^3 of gas less than a year ago.

Large decrease in use of transmission network was not noticed only because of lower consumption of domestic customers, but also because of lower use of the Slovenian transmission network for transmission of gas to other transmission networks.

2.4 The main areas that involved the regulator

In 2011, the preparations for the implementation of the third energy package of EU directives and regulations were in progress. Third energy package imposes much greater workload and responsibilities on regulators. Certain provisions that are directly transferable already in 2011 significantly impacted on the Energy Agency's work. At the same time, the preparation of certain tasks that will be introduced after implementation was carried out. The Energy Agency was actively engaged with relevant Ministry and expert public in preparation of new energy legislation, which in 2011 had not yet been adopted. We actively participated with comments in the process of preparing a new National Energy Program

In electricity area in 2011 an analysis of the regulatory framework for 2010 was carried out. The Energy Agency monitored the implementation of the current regulatory framework (2011-2012), and at the same time started the preparatory activities for the new regulatory framework for the period after 1 January 2013. Very extensive were the tasks in the area of renewable sources and cogeneration of useful heat and electricity. Decision-making process on the support includes issuing of declarations for production facilities, issuing decisions on granting support and certificates of origin as well as performance of analysis and reports on the implementation of support schemes.

Ensuring conditions for implementing smart grids, which will at the introduction of new technologies provide the necessary reliability and quality of transmission and distribution of electricity and gas, also affects the regulation of public utility services. Therefore, the Energy Agency in 2011 adopted a policy to actively regulate the energy activities and networks of the future (the so called AREDOP). The purpose of these activities is prompt and timely deployment of appropriate solutions in the regulatory practice.

The most work in the area of natural gas was related to adoption and execution of the Act Determining the Methodology for Setting the Network Charge for Eligible Costs for the Distribution Network for Natural Gas. On the basis of this act the Energy Agency received 24 applications and issued 21 consents to the network charge of the network system operators.

In the area of district heating was in 2011, in addition to regular tasks, carried out a review of the operation of the public utility services for district heating or the supply with other gases from the network.

3 ELECTRICITY

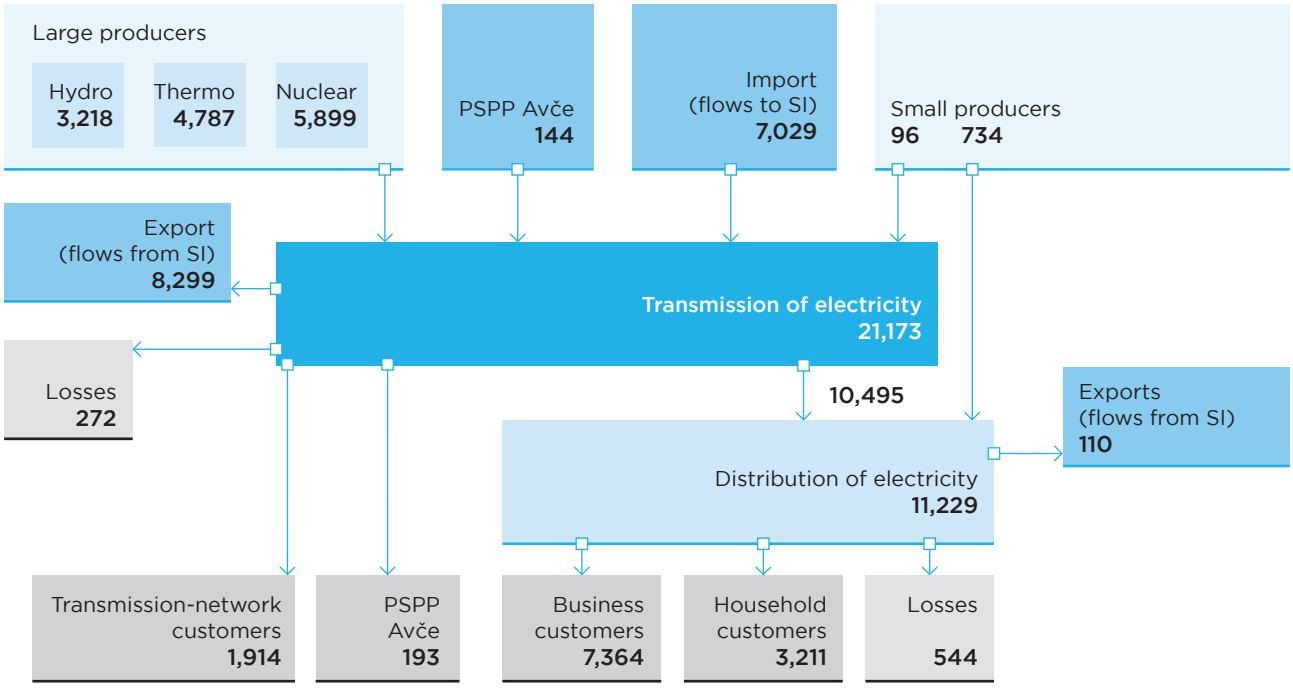
In 2011 the electricity consumption in Slovenia amounted to 12,682 GWh of electricity (excluding the losses in the network). In comparison with 2010, the consumption increased by 524 GWh, or 4.1%. The customers connected to the transmission networks used 1914 GWh of electricity, or 36.8% more than the previous year. The consumption of the customers connected to the distribution network increased by 0.6%, and amounted to 10.575 GWh. The hydroelectric pumped-storage power plant Avče (hereinafter referred to as PSPP Avče) used 193 GWh for accumulation of water. The electricity losses in the transmission and distribution networks amounted to 816 GWh, or 6.2% of transmitted electricity, including transit, export and import of electricity.

In 2011 a total of 14,878 GWh of electricity was generated in Slovenia, which was 382 GWh less than in 2010. The hydroelectric power plants connected to the transmission network generated 3,314 GWh of electricity, which was 934 GWh less than the year before. The thermoelectric power plants generated 4,787 GWh of electricity, or 120 GWh less than in 2010. The Krško Nuclear Power Plant generated 5,899 GWh of electricity, which was 528 GWh more than in the previous year. Production of electricity of the small producers (with production units less than 10 MW) connected to the distribution network, compared with the production in 2010, remained at the same level and amounted to 734 GWh. In 2011 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. Thus, the Slovenian consumption was covered by the domestic source in total of 89%. Through the transmission and the distribution networks 8,409 GWh of electricity was exported, and imported 7,029 GWh of electricity in 2011. Above mentioned amounts are taken from the balance sheets of the transmission and distribution networks operators.

The share of hydroelectric power plants and other production facilities on renewable energy sources (hereinafter referred to as RES) in Slovenia in 2011 slightly fell, mainly due to bad hydrological conditions; it amounted to 28% of the whole production. The power plants using fossil fuels contributed about 32% of total production and Krško Nuclear Power Plant 40%.

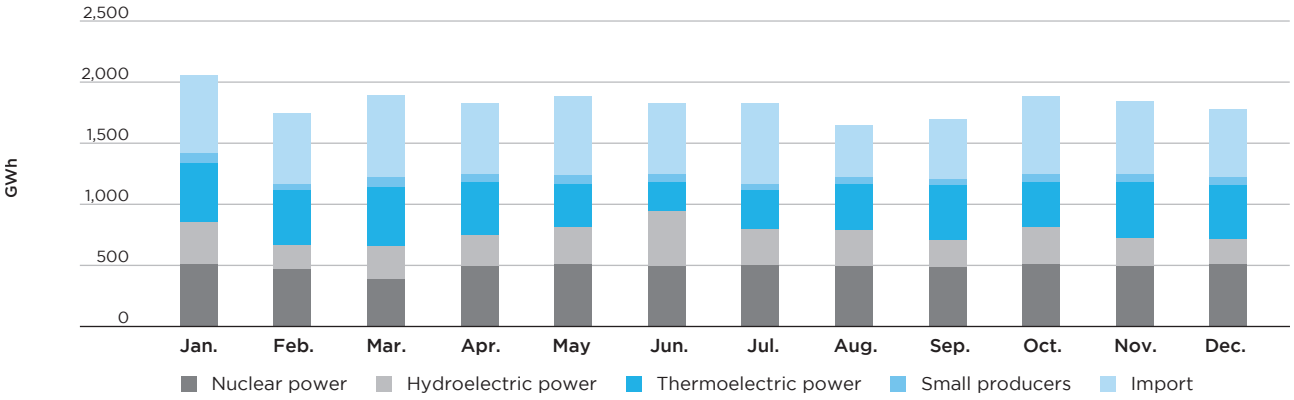
The highest hourly load was noted in March; it amounted to 1,950 MW.

Figure 1: Balance of electricity production and consumption in 2011 in GWh



Source: Energy Agency

Figure 2: Structure of monthly electricity production and import



Source: Energy Agency

Table 1: Electricity production and import in 2010 and 2011 – in GWh

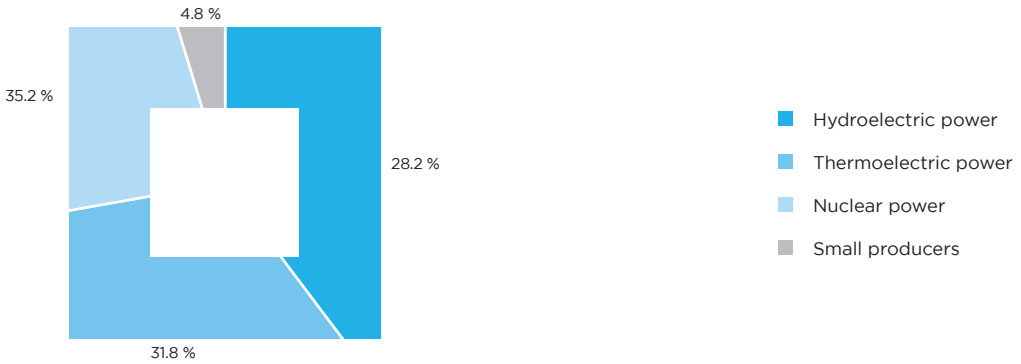
	2010	2011	Index 11/10
Hydroelectric power plants	4,305	3,406	79.1
Thermoelectric power plants	4,851	4,839	99.8
Nuclear power plant	5,371	5,899	109.8
Small producers*	790	734	92.9
Total production in the RS	**15,317**	**14,878**	**97.1**
Imports	8,599	7,029	81.7
Total	**23,916**	**21,907**	**91.6**

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

Source: Energy Agency

The data about the production (Table 1) covers the whole of the production of the nuclear power plant.

Figure 3: Structure of the production sources for electricity in Slovenia in 2011



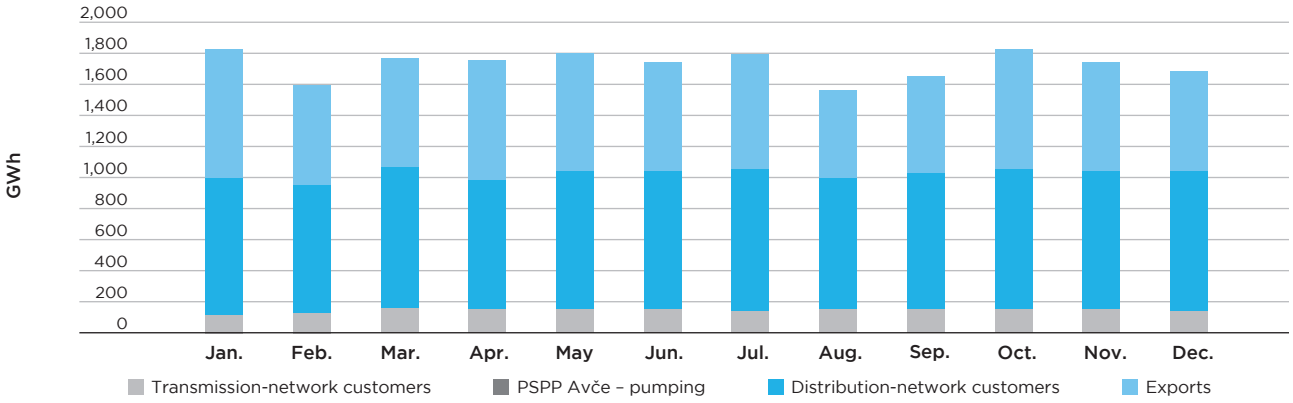
Source: Energy Agency

Table 2: Electricity consumption and export for 2010 and 2011 – in GWh

	2010	2011	Index 11/10
Business customers on the transmission network	1,399	1,915	136.9
Business customers on the distribution network	7,295	7,363	100.9
Household customers	3,219	3,211	99.8
Consumption of the PSPP Avče	245	193	78.8
Network losses	955	816	85,4
Total consumption	13,113	13,498	102.9
Exports	10,745	8,409	78.3
Total	**23,858**	**21,907**	**91.8**

Source: Energy Agency

Figure 4: Fluctuations in electricity consumption in 2011



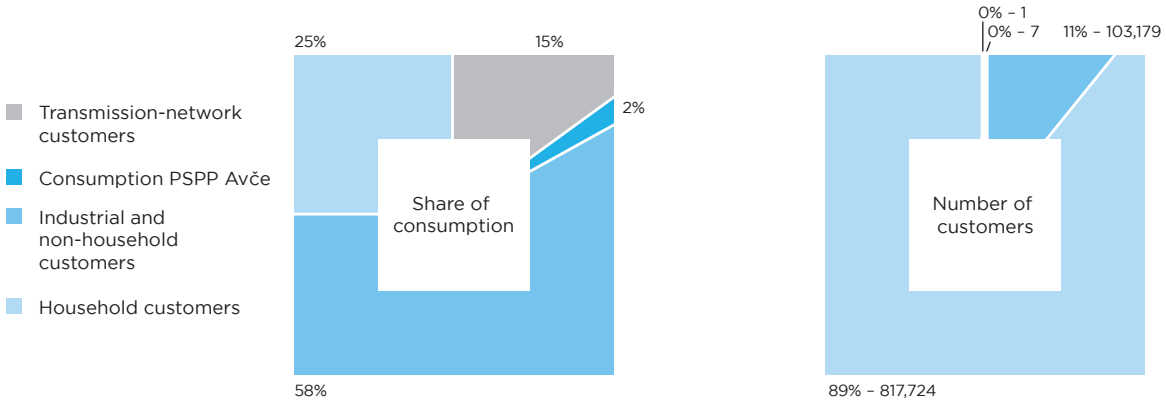
Source: Energy Agency

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

	Number	Consumption GWh
Transmission-network users	7	1,914
Consumption PSPP Avče	1	193
Business customers on the distribution network	103,947	7,364
Household customers	821,328	3,211
All customers	**925,283**	**12,682**

Sources: Energy Agency, system operators

Figure 5: Shares of electricity consumption by consumption type



Sources: Energy Agency, system operators

At the end of 2011 a total of 925,283 electricity customers were connected to the electricity network in Slovenia. In comparison with 2010, in the structure the share of consumption of transmission-network customers increased, from 12% to 15%.

3.1 The regulation

3.1.1 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 public services of the transmission system operation and the distribution system operation are financed from the network charges and other sources. The network charge for the use of electricity networks is set by the Energy Agency.

Elektro Slovenija, d.o.o., provides the public service of the transmission system operator 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 public service of the distribution system operator 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.

3.1.2 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, separate accounts for each energy-related activity in line with Slovenian Accounting Standards.

The activities of public service of transmission system operator (Eles) and the public service of distribution system operator (SODO) in Slovenia are carried out in separate legal entities, as their sole 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 which are carried out for SODO.

3.1.3 Technical functioning

3.1.3.1 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 the TSO, while the 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. 49/07), the TSO, 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 2011 the next scope of the ancillary services was predicted:

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

Just as for the year before, Eles foresaw three products to provide the reserve for tertiary regulation. 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. It also realized that in the previous analyzed period has never used a full range of tertiary reserve. According to that the reserve was classified into three products, 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 2011

	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**

Source: Eles

For leasing products for tertiary reserve for 2011, Eles on 4 October 2010 carried out an auction. The final results are shown in the table below.

Table 5: Auction results for the lease of tertiary reserve for 2011

Product	Selected bidder	Price obtained (EUR/MW)
Product A	GEN energija	43,000,00
Product B	GEN energija	20,000,00
Product C	Energy Financing Team AG	15,000,00

Source: Eles

The providers of other ancillary services were by Eles chosen 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.

3.1.3.2 The balancing

In accordance with 22.a the transmission network operator - Eles is responsible for balancing the imbalances in the Slovenian network. Within a 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, the TSO is responsible for its balancing. In line with the System Operation Instructions for the Electricity Transmission Network (the Official Gazette of the Republic of Slovenia, No 49/2007) the TSO can, in order to balance the imbalances, use the secondary or tertiary control reserve. In addition, it can also buy the required balancing energy, or sell it, in the balancing market or in the electricity market in Slovenia or abroad. In 2011, Borzen, the organizer of the Slovenian electricity market, prepared, after prior coordination with the TSO, draft rules for the operation of the balancing market, and conducted public consultation on these rules. Also in 2011, the amendment of the Rules for Operation of the Organized Electricity Market, which brings changes in the area of balancing deviations was adopted, but these amended rules will apply in 2012.

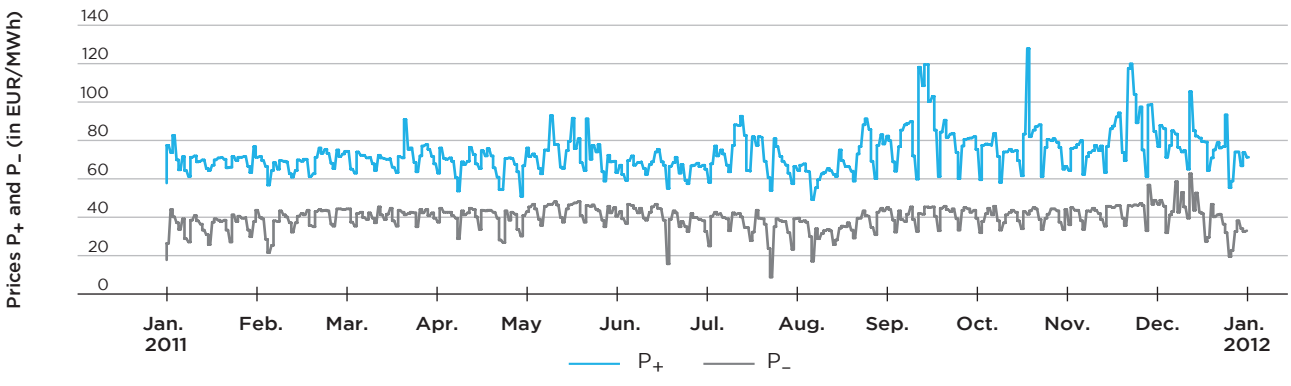
In Slovenia the market operator called Borzen is responsible for charging for the imbalances and will also be in charge of the balancing market once it is in place. Borzen carries out the imbalance accounts on the basis of the provisions from the Rules of the Operation of the Electricity Market. The charging for the imbalances is done in two stages. First, the market operator calculates the imbalance amounts for each balance group and subgroup on the basis of the established imbalances; later it prepares financial accounts that provide the grounds for the settlement of imbalances. An imbalance amount is calculated as the difference between the total realisation of a balance group, or subgroup, and the forecasted operation schedule of the same balance group, or subgroup, for an individual accounting interval, which is one hour. Financial accounts are done for an individual accounting period, which is one month.

In financial statement, for each accounting interval the price is determined on the basis of positive and negative deviations and actual incurred costs of the TSO by accounting balancing deviations. Price of deviations is determined for each direction separately (C_+ and C_-). The financial statement of each balancing group for accounting period is equal the sum of products of the quantity and price deviations in each accounting interval of an accounting period.

Financial accounts are prepared for balancing groups, associated with demand or production-delivery points. For groups that do not have such associate points, i.e. for groups of traders who do not supply energy to end costumers in Slovenia, the financial statements of the imbalance settlement is made only when the responsible parties announced established imbalances.

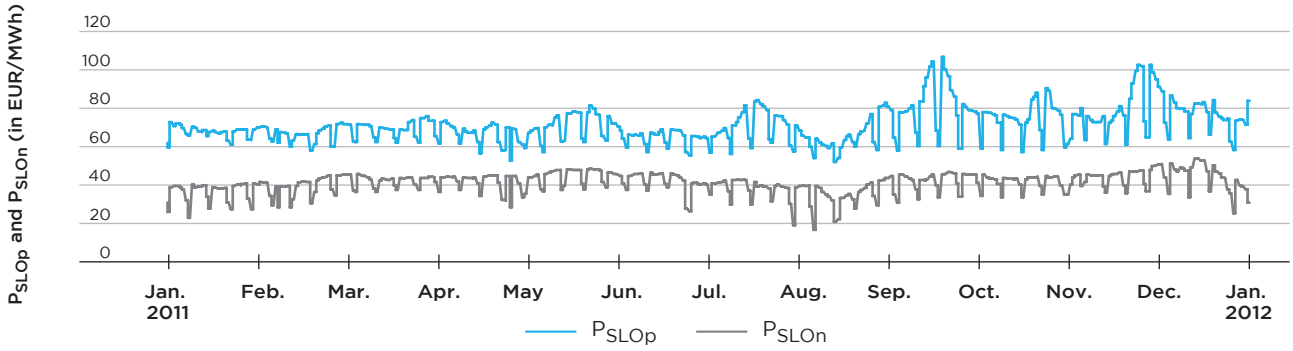
Figure 6 shows the movement of the prices (P_+ and P_-) in year 2011, while next figure shows the movement of indices of deviations C_{SLOp} and C_{SLOn} in the same period.

Figure 6: Average daily values of the main imbalances prices P_+ and P_- in 2011



Source: Borzen

Figure 7: Average daily values of indices C_{SLOp} in C_{SLOn} in 2011



Source: Borzen

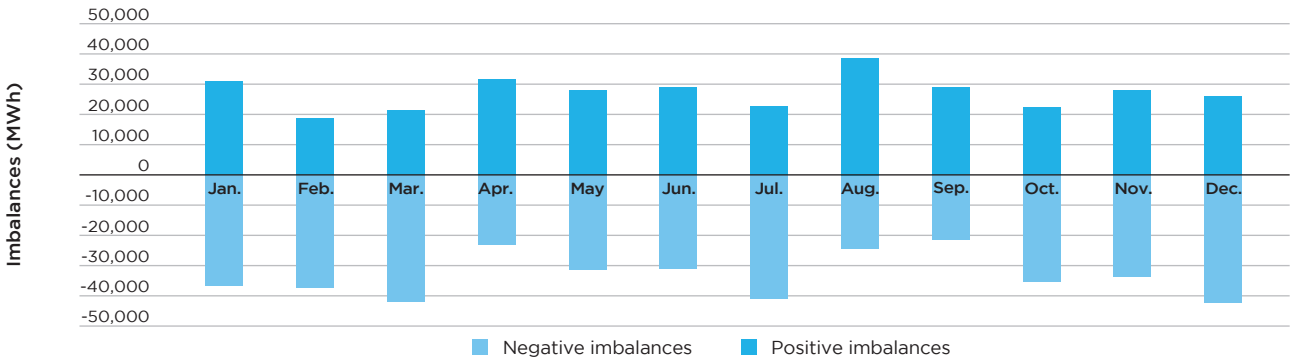
On 1 January 2010 new Rules for the Operation of the Electricity Market came into force, which among other things brought about new way of calculating price of positive and negative imbalances. Due to introduction of a new method the differences in C_+ and C_- were higher, which negatively affects the business of the companies in the wholesale market, and that is way the tendencies for changing the above mentioned rules occurred.

Average daily prices C_+ and C_- in 2011 moved rather steadily and constantly in the first part of the year, but in the second part some significant changes in these prices occurred.

In 2011 the average value of the basic price for the C_+ 73.13 EUR/MWh, and the average value of the basic price for the C_- was 39.59 EUR/MWh. For comparison – average hourly value of the Slovenian Stock Exchange Index SIPX amounted to 57.20 EUR/MWh. The maximum value of C_+ in this period amounted to 267.08 EUR/MWh, and the lowest was 35.01 EUR/MWh. The highest price C_+ occurred on 11 May 2011 in 21 -hourly block, and the lowest on 25 September in 5 -hourly block. The highest price of C_- in 2011 was 158.28 EUR/MWh on / December in 18-hourly block, and the lowest price 12.29 EUR/MWh on 1 January 2011 in 7-hourly block.

The indices of positive and negative imbalances C_{SLOp} and C_{SLOn} were determined on the basis of the past peer-to-peer prices C_+ and C_- for working days, Saturday and Sunday or holidays, as defined in the Rules for the Operation of the Electricity Market. As seen from the graph in the figure above, the indices throughout the whole period followed basic imbalances prices C_+ and C_-. The average indices values C_{SLOp} and C_{SLOn} in 2011 were 70.98 EUR/MWh and 40.87 EUR/MWh.

Figure 8: Monthly imbalances of the Slovenian network in 2011 [MWh]



Source: Borzen

Figure 8 shows the total monthly positive and negative imbalances of all balance groups in Slovenia for 2011. The largest positive imbalances occurred in August, namely 38,670 MWh, and the lowest in February, 18,836 MWh. The largest negative imbalances occurred in December, of total amount of 42,186 MWh, and the lowest in September, when they totalled 21,388 MWh.

Positive deviations represent a shortfall of electricity in the system and negative surplus of electricity. Annual balancing in 2011 amounted to 71,970 MWh. In comparison with the previous year 3 more balance group operated in the Slovenian wholesale electricity market. Some balance groups from the former years were remodelled, some started to act as balance sub-groups within groups, some ceased to operate, and some are new. We can conclude that the development of the Slovenian wholesale electricity market has stabilized in some way, because no significant changes in the number of operating balance groups has been noticed.

3.1.3.3 The business operations of the market operator

Borzen, d.o.o., the electricity-market operator, 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, d.o.o., the electricity-market operator, 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 public service, 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 2011 the company generated (unaudited financial results) €4.37 million, which were, in comparison with 2010, higher by 20.3%. The expenditure amounted to €2.30 million and was, in comparison with the previous year, lower by 16%. The market operator generated €1.09 million of the net profit, and the net profit of the Centre of Support was €0.57 million. At the end of the year the company had 29 employees.

3.1.3.4 Safety and Reliability Standards, 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 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:

- the commercial quality or the quality of the services that a company provides for its network users,
- the supply continuity,
- the voltage quality.

The supply continuity

In 2011 the data on the supply continuity 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 were sent by using Web services.

The SAIDI indicators for unforecasted interruptions caused internally from 2009-2011, sent by the electricity distribution companies, are shown in table below.

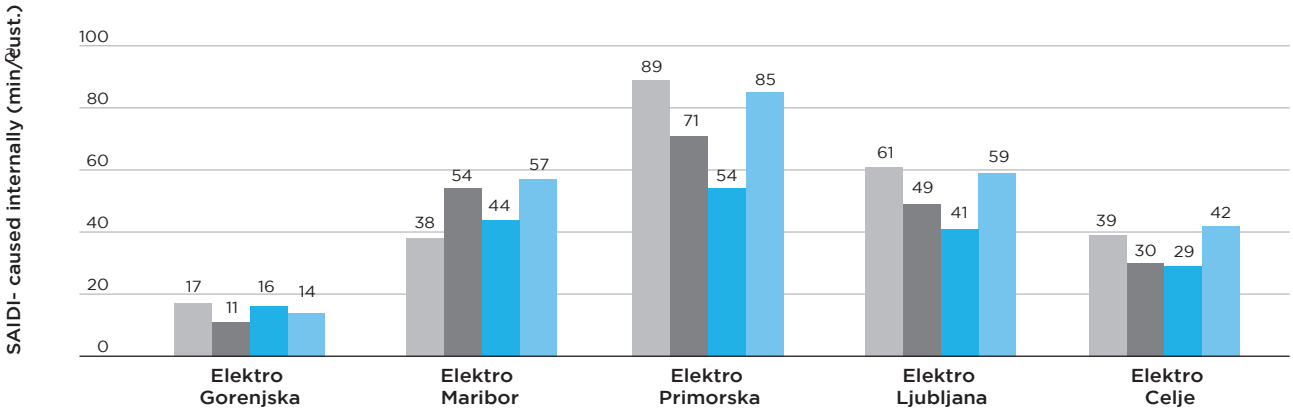
Table 6: SAIDI by year- 2008 in 2011 unforecasted interruption caused internally

	SAIDI – interruptions caused internally			
Company	**2008**	**2009**	**2010**	**2011**
Elektro Gorenjska	17	11	16	14
Elektro Maribor	38	54	44	57
Elektro Primorska	89	71	54	85
Elektro Ljubljana	61	49	41	59
Elektro Celje	39	30	30	42

Sources: Companies' data

Next figure shows the SAIDI between 2008 and 2011 for unforecasted long-term interruptions (caused internally). An increase in indicator SAIDI in 2011 can be noticed for almost all companies (except Elektro Gorenjska), which can be attributed to the fact that in 2011 for the first time the regulation with the quality of supply came into force. Data, provided by these companies in 2011, reflected more realistic picture of the supply continuity indicators. Declining trends in previous years did not probably reflect the real state of the network. Figure shows that the lowest indicators of this period belongs to Elektro Primorska.

Figure 9: SAIDI for period 2008–2011 unforecasted interruption caused internally



Sources: Companies' data

On the basis of the SAIDI and SAIFI for 2011 relating to individual network owners, the Energy Agency calculated the aggregate value of SAIDI and SAIFI indicators on the basis of the number of all customers in Slovenia, as shown in Table 7. Table 8 also shows the SAIDI and SAIFI indicators that relate to all interruptions which namely affect a customer. At calculating these indicators, as, in addition to internal interruptions, the external interruptions due to force-majeure are also covered; the forecasted interruptions are shown separately.

Table 7: SAIDI and SAIFI at the national level for period 2008-2011 (unforecasted)

Indicator / Causes	Unforecasted interruptions							
	2008		2009		2010		2011	
	Internal causes	All causes	Internal causes	All causes	Internal causes	All causes	Internal causes	All causes
SAIFI – national level [interr./cust.]	1.47	2.71	1.16	2.40	1.08	1.81	1.33	1.81
SAIDI – national level [min./cust.]	51	116	46	133	39	81	55	76

Sources: Companies' data

Table 8: Indicators SAIDI in SAIFI at national level from 2008–2011 (forecasted interruptions and all interruptions)

Indicator	Forecasted interruptions				All interruptions			
	2008	2009	2010	2011	2008	2009	2010	2011
SAIFI – national level [interr./cust.]	1.09	1.05	0.85	0.98	3.80	3.44	2.65	2.79
SAIDI – national level [min./cust.]	138	130	104	127	254	264	185	203

Sources: Companies' data

The commercial quality

In 2011, the Energy Agency for the first time received information on parameters of commercial quality, which are based on a uniform way (revised on-line application) define in the Act Concerning the Submission of Data about the Quality of the Electricity Supply. Commercial quality parameters are consistent with the methodology on data collection of the CEER, and thus comparable to the EU level. The collected parameters are merged into the following groups:

1. Connecting to a network
2. Costumer protection
3. Technical services
4. Metering and Billing

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 meet, 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.

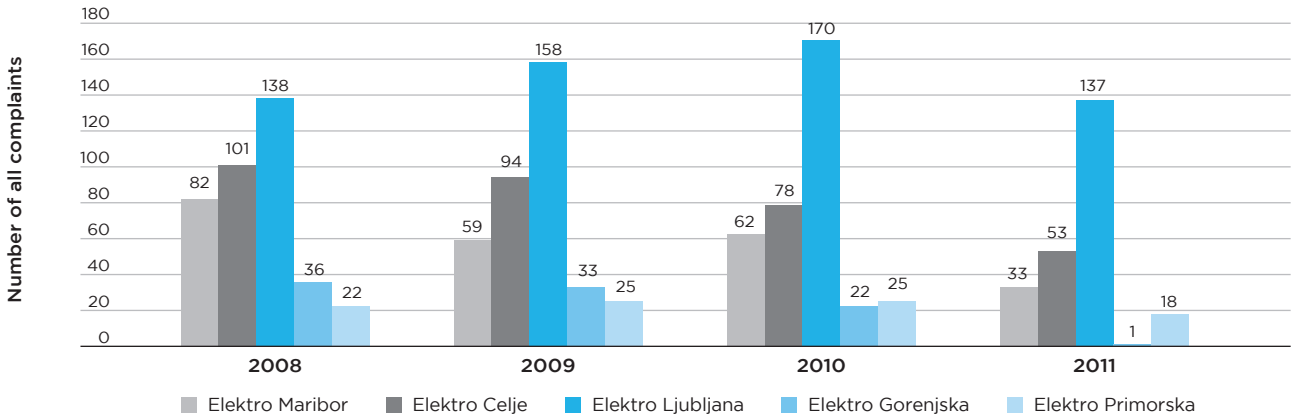
The voltage quality

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 varies over the years (Figure 10); so it is very difficulty to determine the trend of increasing or decreasing in number of complaints against improper voltage quality. According to numbers, Elektro Ljubljana received the higher number of complaints.

Figure 10: Number of all complaints relating to voltage quality for 2008–2011 by company



Sources: Companies' data

Table 9: Number and shares of justifiable complaints to voltage quality for 2009–2011

Company	2009			2010			2011		
	All complaints	No. of justifiable complaints	Share of justifiable complaints (%)	All complaints	No. of justifiable complaints	Share of justifiable complaints (%)	All complaints	No. of justifiable complaints	Share of justifiable complaints (%)
Elektro Maribor	59	49	83.1 %	62	47	75.8 %	33	25	75.8 %
Elektro Celje	94	77	81.9 %	78	59	75.6 %	53	47	88.7 %
Elektro Ljubljana	158	98	62.0 %	170	110	64.7 %	137	111	81.0 %
Elektro Gorenjska	33	20	60.6 %	22	9	40.9 %	1	0	0.0 %
Elektro Primorska	25	16	64.0 %	25	17	68.0 %	18	10	55.6 %
Total	**369**	**260**	**70.5 %**	**357**	**242**	**67.8 %**	**242**	**193**	**79.8 %**

Sources: Companies' data

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 2011 the TSO carried out continual monitoring of voltage quality of the high-voltage network in line with the requirements of the Standard SIST EN 50160 in 162 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 it 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 in line with the requirements of the SIST EN 50160 standard, except for size of the supply voltage, harmonic voltage, voltage unbalance and the flicker.

Excessive flicker values in the areas around large customers using electric arc furnaces are caused by an irregular inductive current resulting in a large voltage fluctuation on the transmission network. The most extensive flicker is caused by the Jesenice Steelworks. In 2011 flicker was perceived throughout the Gorenjska Region and in some Ljubljana nodes. Another area where flicker was detected was Koroška Region because of arc furnaces in the Ravne Ironworks. Occasional flickers occured because of outages of transmission lines and transformer substation, due to regular annual maintenance work and constructions and storms or other exceptional weather conditions.

3.1.3.5 The long-term development of the electricity network

The transmission and distribution system operators prepared for the period 2011–2020 development plans, which set the expected physical and financial extent of the investments in new facilities and in upgrading the existing electricity facilities on the transmission as well as on the distribution networks.

These plans must be consistent with national energy program; they have to be evaluated and approved of 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 used 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 sites for new large production sources.

In the development plans for 2011–2020, the expected investments in the electricity infrastructure for the transmission and distribution amount to €2,392 million, of which €635 million are allocated for the transmission network, and €1,757 million are allocated for the distribution network.

According to the plan for electricity distribution networks, the investments will reach its peak in 2015, and after that gradually decline. In the transmission network the scale of investments will gradually increase and reach its peak in 2014, and thereafter gradually decrease, and reached the lowest point in 2019.

It should be mentioned that the implementation of the development plan since 2009 is strongly affected by the economic crisis, as the volume of new investments in industrial and construction sector fell significantly. The same should be expected in the beginning of the period 2011–2020. Investments are hindered mainly because of the difficulties associated with the placing of the line facilities in the environment (especially for high-voltage lines 400 kV and 110 kV).

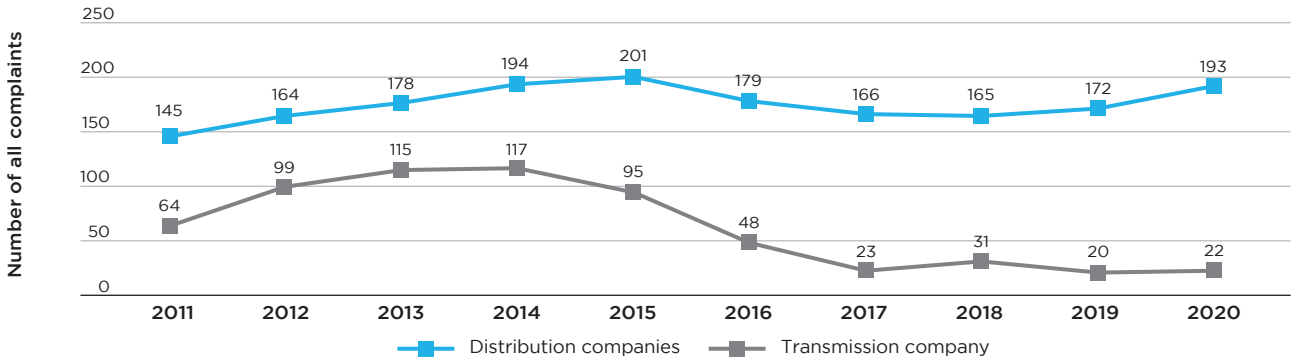
In the period up to 2020 major investments planned are 2 x 400 kV Beričevo–Krško transmission lines, 2 x 400 kV Podlog-Cirkovce – transition from 220 kV to 400 kV transmission lines, 2 x 400 kV Beričevo–Divača transmission lines and 2 x 110 kV Beričevo–Trbovlje transmission lines. International lines with Italy are also planned, namely 2 x 400 kV Okroglo-Videm, and with Hun-

gary – 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. In Avče the new DTS 400/110 kV will be connected to Okroglo–Videm transmission line. New 110 kV DTS are planned in Brestanica and Moste, and reconstructions of existing DTSs are also planned.

Distribution system operator will in next 10 years invest mostly in the medium-voltage level (31%), followed by investment in 110 kV (30%), secondary network (17%) and low-voltage electricity infrastructure. It will invest also in advance metering infrastructure, for which in some companies already carried out some pilot projects, as well as existing mechanical meters, when they run out, are replaced with the system (AMI) meters. The cabling of medium voltage network is ongoing. These investments are important because 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. With new investments and reconstruction, medium-voltage network passes gradually from 10 and 35 kV to 20 kV voltage level.

The distribution networks have to adapt to the increased connection of new disperse generation from renewables and cogeneration to LV and ML network. The existing network, which was built especially for flows from large power producers, connected to the transmission network, to consumers on the distribution network, was not planned for such operation. In the event of the outage of the part of the network, which contains many disperse sources, island operation and dangerous supply restoration may occur. Large proportion of disperse sources can be problematic even for controlling voltage conditions. The network will therefore have to be transformed from passive to active, bringing together system operators, producers and customers. They will have to adjust protection and control systems as well. Dispersed electricity sources should be connected to the network where their impacts on the network are the smallest. Therefore, analysis and studies are carrying out to identify those parts of the network which are most suitable for the connection.

Figure 11: Planned investments of the high-voltage transmission network and distribution companies; total planned development plans for 2011–2020



Sources: Eles, SODO

3.1.4 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.

3.1.4.1 Setting the network charge

In 2010, the Energy Agency implemented a new 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, which set the third regulatory framework from 1 January 2011 to 31 December 2012.

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 third 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,
- 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 cots 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, and the achieved level of the quality of supply.

If the costs of the system operator are lower then actual eligible costs, it may keep the difference.

Regulation based on the quality of the electricity supply is implemented by supply continuity indicators (SAIDI, SAIFI) for the activity of the distribution system operator. For each year of the regulatory period, by establishing baseline of indicators SAIDI and SAIFI and by taking into account system of standard for supply continuity, the Energy Agency determines the reference level of the supply continuity indicators. At the end of the year derogation from the reference level is established, which than is a basis for determining q factors for individual distribution areas. Factors q are determined by using the scheme of eligible costs of operation and maintenance. For the system operator factors represent the proportion of the (non-)eligible costs of operation and maintenance. If the system operator does not reach the required quality of supply, eligible costs of operation and maintenance are reduced (system operator is penalized), on the other hand, if the required level of the quality of supply is met, the system operator is entitled to actual controlled operating and maintenance costs (incentives).

After every regulatory year the system operator is obliged to determine the derogations from the regulatory framework, which are determine 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 opera-

tor 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.

In accordance with EA, the test of the methodology can be required, if, within two months after the issuing of the methodology, a legal interest is identified and reasons for review are presented. The Energy Agency must test the methodology within two months, and notify the applicant of its findings.

3.1.4.2 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.

3.1.5 The business operation of the regulated companies

3.1.5.1 The business operation of the transmission system operator

Eles ended the financial year 2011 with a net profit of €4.11 million, which was €1.2 million less than in 2010.

In 2011 the transmission system operator generated revenues from the network charge for the transmission network, the network charge for the ancillary services, the network charge for the specialised ancillary service, and from other services.

Table 10: Transmission system operator's network charge

In mio EUR

Year 2011	Regulatory Framework	Realization	Index Real./Reg. frame.
Network charge for the transmission network	63.78	64.12	100.53
Network charge for the ancillary services	35.29	34.88	98.84
Network charge for the specialised ancillary service	0	0.18	
Total network charge	**99.07**	**99.18**	**100.11**

Source: Eles

Eles realized for 0.5% more revenues from the network charge than expected by the Energy Agency in the regulatory framework. The revenues from ancillary services were realized for 2.16% less than expected by the regulatory period. Network charge for the specialised ancillary service was not planned by the regulatory framework, but it was realized in the amount of €0.18 million.

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 €42.62 million, which was 23.97%, more than in 2010.

In accordance with Article 46.a of the EA and Regulation (EC) No 714/2009 of the European parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity, Eles in its income statement reduced or separated the part of the revenues from the auctions for allocating congested cross-border transmission capacities.

Eles, d.o.o., owns the transmission system network and provides the public service of the transmission system operator. In 2011, the total length of transmission lines was 2603 kilometres.

At the end of 2011 Eles had 530 employees, 3 employees less than the year before.

3.1.5.2 The business operation of the distribution system operator

SODO, d. o. o., ended the financial year 2011 with a net profit of €1.95 million (according to unaudited financial results), which was €0.24 million less than in 2010.

In 2011 the distribution system operator generated revenues from the network charge for the distribution network, the network charge for the specialised ancillary service, from charging for the average cost for a connection load, and from other services.

In the regulatory frame for 2011 the Energy Agency expected €244.94 million revenues from the network charge for the distribution network. Due to lower consumption than expected, the revenues decreased to €241.17 million, which was 1.54% less than expected. The revenue from the network charge for the specialised ancillary service was €2.33 million.

At the end of 2010 the company had 26 employees, 3 more than in 2010.

SODO, d.o.o. provides the public service of the distribution system operator on the distribution network is total length of 65,576 kilometres, which also include street lighting. Of these, SODO owns 19 kilometres of the network, 955 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:

- 17,267 kilometres; Elektro Celje, company for electricity distribution, d.d., Vrunčeva 2a, 3000 Celje, www.elektro-celje.si,
- 5,349 kilometres; Elektro Gorenjska, company for electricity distribution, d.d., Ulica Mirka Vadnova 3a, 4000 Kranj, www.elektro-gorenjska.si,
- 17,150 kilometres; Elektro Ljubljana, company for electricity distribution, d.d., Slovenska cesta 58, 1000 Ljubljana, www.elektro-ljubljana.si,
- 16,165 kilometres; Elektro Maribor, company for electricity distribution, d.d., Vetrinjska ulica 2, 2000 Maribor, www.elektro-maribor.si in
- 8,645 kilometres; Elektro Primorska, company for electricity distribution, d.d., Erjavčeva 22, 5000 Nova Gorica, www.elektro-primorska.si.

In line with the legislation, SODO has had, since the granting of the concession, a 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.

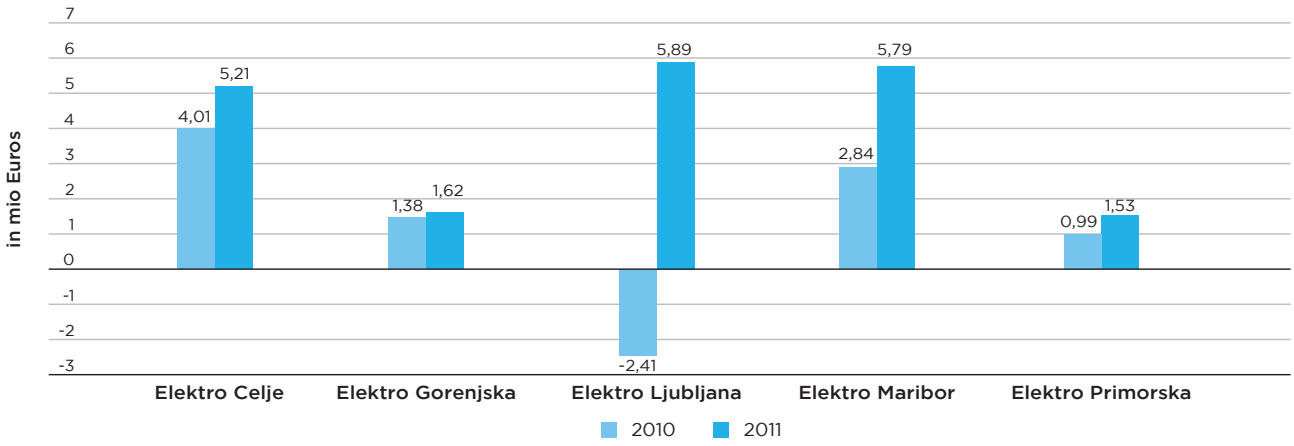
The above contract regulates all the issues relating to the extent and purpose of using the electricity-distribution infrastructure: the leasing fee, the terms and conditions, the maintenance of the electricity-distribution infrastructure and other issues associated with the concerned infrastructure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

3.1.5.3 The business operation of the owners of the electricity distribution infrastructure

In 2011 the owners of the electricity distribution infrastructure excluded the market activities to the eligible costumers. So the owners of the electricity distribution infrastructure in 2011 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.

In 2011 the owners of the distribution infrastructure generated €19.20 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 €20.04 million of net profit.

Figure 12: Profit from leasing and service activities for SODO in mio Euros



Sources: Companies' data, Energy Agency

At the end of 2011 the owners of the distribution infrastructure employed a total of 3,059 employees, which was a 7.61-percent decrease with respect to the number of staff in 2010. Leasing and the services had 2,428 employees, which was 1.24-percent decrease in comparison with the previous year.

3.1.6 Cross-border transmission capacities

3.1.6.1 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 until 2 March 2011 regulated by Regulation No 1228/2003 on the Conditions for Access to the Network for Cross-Border Exchanges in Electricity (hereinafter referred to as Regulation 1228/2003). From 3 March the same area is regulated by Regulation No 1228/2003 on the Conditions for Access to the Network for Cross-Border Exchanges in Electricity and repealing Regulation (ES) No 1228/2003 (hereinafter referred to as Regulation 714/2009), which was adopted within the Third EU Energy Package.

In setting and allocating CBTCs the new Regulation 714/2009 does not provide significant changes. Under the provision of both Regulations 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.

Several significant changes were implemented in this area in 2011 in comparison with previous years. The most important change was the introduction of market coupling on the Slovenian and Italian border by which CBTCs for a day ahead started to be allocated through implicit auctions. This was the Slovenian first step towards the introduction of the European target model for electricity market after 2014, which foresees implicit auctions for CBTCs for a day ahead on all European borders. Another important change was the beginning of joint coordinated explicit auction for CBTCs in regions Central-Eastern Europe (CEE) and Central-South Europe (CSE). In the region CEE in 2011 all capacities were allocated by auction house CAO based in Germany, in the region CSE since April 2011 capacities were allocated by the auction house CASC. EU with its headquarters in Luxemburg. Next change was the introduction of bilateral co-ordinated explicit auctions on the border between Slovenia and Croatia. At the Slovenia-Croatia border in 2011 Eles held explicit auctions in the direction to Slovenia, and in the first three months at the Slovenian-Italian border in the direction to Italy. In the opposite direction auctions were held by the system operators of the neighbouring countries, HEP-OPS at the border with Croatia, and Terna at the

border with Italy. With that, at both borders with the EU countries the mechanism for CBTCs fulfil the requirements of the above mentioned Regulations, and an important step was done at the border with Croatia, where a basic level of coordinated auctions was implemented.

At all three Slovenian borders in a joint regional or bilateral co-ordinated allocation of capacities was carried out on annual, monthly and daily level. Except at the border with Italy, where due to market coupling CBTCs for day ahead were allocated through implicit auctions, explicit auctions were held.

Table 11 shows a review of the allocated CBTSs by individual border, the total revenues from the auctions, and the price for allocated megawatt hour.

Tabel 11: Review of the allocated CBTCs and the revenues from the auctions by border

Border	Allocated (MWh)	Revenue (EUR)	Price for allocated CBTCs (EUR/MWh)
SI-IT	2,545,325	35,609,338	13.99
IT-SI	374,561	18,989	0.05
SI-AT	7,202,288	490,570	0.07
AT-SI	4,450,765	5,542,644	1.25
SI-CRO	6,486,518	275,232	0.04
CRO-SI	15,779,555	9,061,030	0.57

Source: Eles

It is clear from the table that, in 2011, the TSOs from Slovenia, Italy and Austria allocated the amounts of the CBTCs that allowed larger flows that were actually realised. This was a result of the rule "use a CBTC or lose it". In accordance with this rule all the CBTCs allocated at an auction for a long period, whose use is not announced (nominated) by the relevant TSO by the deadline, will be allocated again at an auction, this time for a short period. In this way, a part of the CBTCs is auctioned several times. It is also clear from the table that in 2011 the transmission direction Slovenia—Italy generated the largest revenue, mainly because of different prices of electricity on the wholesale markets of Slovenia and Italy. Compared with 2010, the capacity value from Slovenia to Italy slightly decreased, from 15.92 EUR/MWh to 13.99 EUR/MWh. At the same time the capacity value from Austria to Slovenia increased from 0.25 EUR/MWh to 1.25 EUR/MWh. It shoul be mentioned that all revenues at the borders with Austria and Italy actually belong to the Slovenian TSO, while at the borders wit Croatia the revenues are divided between the Slovenian and Croatian TSOs.

Because of its geographical position, Slovenia is included in three regional markets for electricity — Central-Eastern Europe, Central-South Europe and South-East Europe and in so called eight region of South East Europe. Slovenia's involvement in these regions, for the purpose of congestion management, is also expected in the Congestion Management Guidelines that are an integral part of Regulation 1228/2003. The details on the developments in the regions are given in section 3.1.6.3 – The degree of electricity-market integration with the neighbouring countries.

3.1.6.2 Control over the investment plans of the transmission system operator

In June 2010 ENTSO-E announced a 10-year development plan (hereinafter referred to as TYNDP) for the period 2010–2020. TYNDP includes planned investments in the transmission infrastructure in 34 European countries. For the first 5 years of the relevant period the plan foresees almost 500 investments worth over €23 billion. The objectives of the TYNDP are the implementations of the principle of transparency in terms of investments in the transmission infrastructure, as well as providing support for regional investments decisions.

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

In TYNDP for 2010-2020 for the Slovenian transmission system following investments are important:

– 400 kV phase-shifting transformer in DTS Divača,
– 2 x 400 kV Okroglo–Videm transmission line,
– 2 x 400 kV Cirkovce–Pince transmission line,
– 2 x 400 kV Beričevo–Krško transmission line,
– 2 x 400 kV Divača–Cirkovce, transfer from 220 kV to 400 kV.

The investment in 400 kV transformer substation in DTS Divača is already implemented, while other investments are classified as long-term investments. All these projects are planned in the system operator's TYNDP.

3.1.6.3 Cooperation between regulators

In 2011 ACER, the Agency for the Cooperation of Energy Cooperation was given legal capacity from 3 March 2011. Its headquarters are in Ljubljana. Cooperation between regulators of European countries that was previously held mainly by CEER and ERGEG, Regional initiatives and by bilateral cooperation has been now passed also to ACER.

The Slovenian electricity market is situated between three different regional mar-kets 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 regulators.

In the region Central-Eastern Europe since 2006 activities have been carried out to establish and allocating CBTCs according to the new methodology based on actual load flows in the network (so called FB or Flow Based method). All the necessary preparations to implement this method are carried out by the regulators. Start of using this method has been in past years repeatedly postponed. In September 2011, TSOs of the region admitted that they can not agree on use of this method, and they asked regulators to assist in taking decision. The latter, together with ACER, came to the conclusion that the best solution for the region is to begin immediately preparations for the introduction of the European target model for allocating CBTCs for a day ahead, which means market coupling using FB method. This task will include participants from the regions Central-West Europe (CWE) and North-West Europe (NWE). Market coupling for these regions is planned for the end of 2013.

In the region Central-South Europe that includes Italy and its neighbouring countries, and the border between Italy and Slovenia, in 2011 majority of activities was dedicated to ensure the harmonisation of rules for allocation of CBTCs in this region and neighbouring region CWE. After April 2011, when all auctions for both regions were carried out by the auction house CASC. EU, but under separate rules for each region, the preparations to establish common rules for both regions started. These activities, supervised by the regulators, started in April and finished successfully in October, when system operators sent new rules for 2012 for approval to the regulators.

In the so called eighth region South-East Europe in 2011 still the activities for establishing a coordinated auction office were in progress. As most of this region is composed of the signatories to the Energy Community Treaty, in which the liberalisation of the electricity market was introduced later than in the Member States, and is still in progress, this region differs significantly from the other regions. Unresolved political and legal issues involving individual countries or areas present large obstacles to the progress of this region.

3.1.7 The decisions on disputes and appeals

The Energy Agency is legally authorised to decide, in an administrative procedure in the first instance, on disputes between the network users and the system operators or the market operator and, in the second instance, on appeals against the decisions of the system operator relating to a connection approval.

In 2011 the energy Agency received 30 requests to decide on disputes, 37% less than the year before, when we received 48 such requests. 27 requests were related to electricity.

In the last three years appeals against the issued connection approvals prevailed. Customers complained mainly because of refusal to grant consent and poor voltage quality.

3.2 Market-based activities

3.2.1 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. 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 in line 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 forecasts of production and consumption keeps records of the contracts between the suppliers, the consumers and electricity producers.

In 2011 a total of 93,958 closed contracts and a total of 73,114,379 MWh of operational forecasts included in the open contracts were registered. In comparison with the previous year, the number of recorded closed contracts and operational forecasts increased by 19.8%, and the total amount of electricity from recorded closed contracts and operational forecasts increased by 16.2%.

3.2.2 Production and the wholesale market

3.2.2.1 Production of electricity

In 2011 the following companies operating large facilities with a capacity of over 10 MW:

- Dravske elektrarne Maribor, d.o.o. (DEM)
- Soške elektrarne Nova Gorica, d.o.o. (SENG)
- Termoelektrarna Šoštanj, d.o.o. (TEŠ)
- Termoelektrarna Trbovlje, d.o.o. (TET)
- Savske elektrarne Ljubljana, d.o.o. (SEL)
- Termoelektrarna Brestanica, d.o.o. (TEB)
- Nuklearna elektrarna Krško, d.o.o. (NEK)
- Termoelektrarna toplarna Ljubljana, d.o.o. (TE-TOL)

Companies DEM, SEL, HESS and SENG generate electricity in hydroelectric power plants, NEK in a nuclear power plant, TEŠ and TET in thermoelectric power plants

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

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. 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.

Table 12: Installed capacities if the production facilities in Republic of Slovenia

Producer	Installed capacity [MW]	Share-all producers in RS (%)	Share on the transmission network (%)
HSE	**1,806**	**59.1%**	**66.5%**
HPP	951		
TPP	855		
GEN energija	**778**	**25.3%**	**28.4%**
HPP	118		
TPP	312		
NPP*	348		
TE-TOL	**113**	**3.7%**	**4.2%**
Other small producers (on the transmission network)	**25.6**	**0.8%**	**0.9%**
Small HPP	10.4		
Cogeneration units	15.2		
Other small producers (on the distribution network)	**251.77**	**11.1%**	**-**
Small HPP	101.42		
Solar power plants	115.49		
Wind-powered plants	0.02		
Facilities using biomass	5.20		
Geothermal power plants	0.00		
Facilities using landfill gas	7.06		
Facilities using gas from purification plants	0.20		
Facilities using biogas	27.67		
CHP facilities using wood biomass	10,05		
CHP using fossil fuels	37.19		
Other	33.49		
Total in RS	**3,060**	**100%**	**-**
- on the transmission network	**2,722**	**-**	**100%**

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

Sources: Companies' data

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 2011 Slovenian power plants produced a total of 15,137 GWh of electricity, but the actual Slovenian production was smaller, amounting to 12,186 GWh.

In 2011 the largest share of electricity production in Slovenia that actually belongs to the Slovenian customers (including a half of the Krško NPP's production) was contributed by the thermoelectric power plants and the hydroelectric power plants producing almost 68% of all the electricity. These are followed by the nuclear power plant, producing about one quarter of all the electricity.

Table 13: Shares of different types of electricity production in Slovenia

Type of production	Production (GWh)	Share	Production – 50 % NPP (GWh)	Share
Nuclear power plant	5,902	39.0%	2,951	24.2%
Thermoelectric power plants	4,916	32.5%	4,916	40.3%
Hydroelectric power plants	3,420	22.6%	3,420	28.1%
Other small producers (on the transmission network)	97	0.6%	97	0.8%
Other small producers (on the distribution network)	803	5.3%	803	6.6%
Total	**15,137**	**100,0%**	**12,186**	**100.0%**

Sources: Companies' data

In 2011 a good of 79 MW of new production capacities were connected to the Slovenian electricity network, mostly solar power plants. No production unit was stopped.

Table 14: Connections and disconnections of production facilities in 2011

Type of production	Installed net capacity in 2011 (MW)	Disconnected power plants in 2011 (MW)
Hydroelectric power plants	1.0	0.0
Solar power plants	61.0	0.0
Facilities using biogas	10.3	0.0
CHP using fossil fuels	6.4	0.0
Other	0.3	0.0
Total	**79.0**	**0.0**

Sources: Companies' data

3.2.2.2 The degree of competitiveness of the production companies

With a concentration rate, we express the total market share of the largest com-panies in the area, and measure the level of market dominance, or oligopoly.

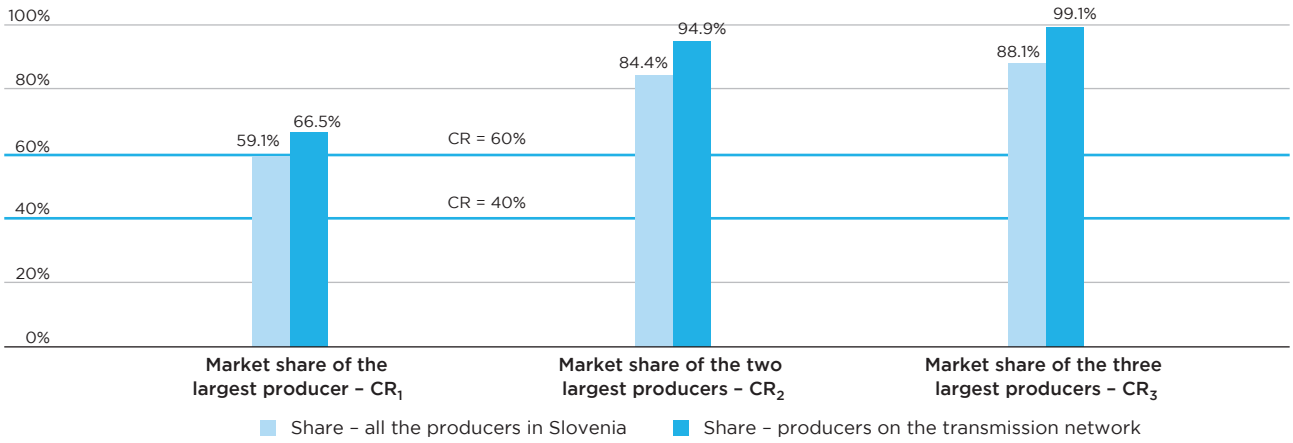
The concentration rate is mainly affected by two factors: the number of companies in the market and their relative sizes. As the concentration rate is the sum of the shares of a selected number (n) of the largest companies in the market, it does not entirely explain the distribution of the market power. The concentration rate relating to a selected number of the largest companies is marked as CR_n.

In accordance with the Prevention of Restriction of Competition Act, 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 (CR_1), the market share of the two largest producers (CR_2), and the market share of the three largest market producers (CR_3) in Slovenia.

Figure 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).

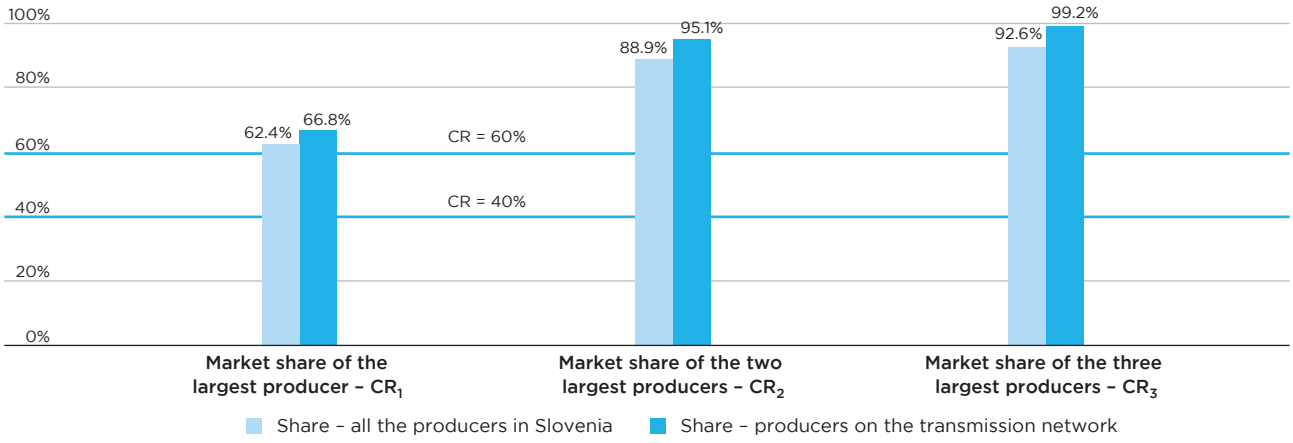
Figure 13: Cumulative share of the one (CR_1), two (CR_2) and three (CR_3) largest producers with respect to the installed capacity (50%of Krško NPP)



Sources: Companies' data

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

Figure 14: Cumulative share of the one (CR_1), two (CR_2) and three (CR_3) largest producers with respect to electricity production (50% of Krško NPP)



Sources: Companies' data

In 2011 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. HSE, whose market share still significantly exceeded 40% (CR_1) remained the dominant company in 2011 as well. The share of the two largest electricity producers on the transmission network (CR_2) exceeded 95%, and the three largest electricity producers on the transmission network managed more than 99% (CR_3). In the wholesale market very tight oligopoly is created, caused by the fact that there are only two energy pillars.

The Herfindahl-Hirshmann 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 concen-

tration; and above 1,800 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 tables 15 and 16.

Table 15: HHI with respect to the installed capacity

Producers	Market share with respect to the installed capacity	
	Total in RS	On the transmission network
HSE	59.1%	66.5%
GEN energija	25.3%	28.4%
TE-TOL	3.7%	4.2%
Other small producers(on the transmission network)	0.8%	0.9%
Other small producers (on the distribution network)	11.1%	-
Total	**100.0%**	**100.0%**
HHI with respect to installed capacity	**4,272**	**5,246**

Sources: Companies's data

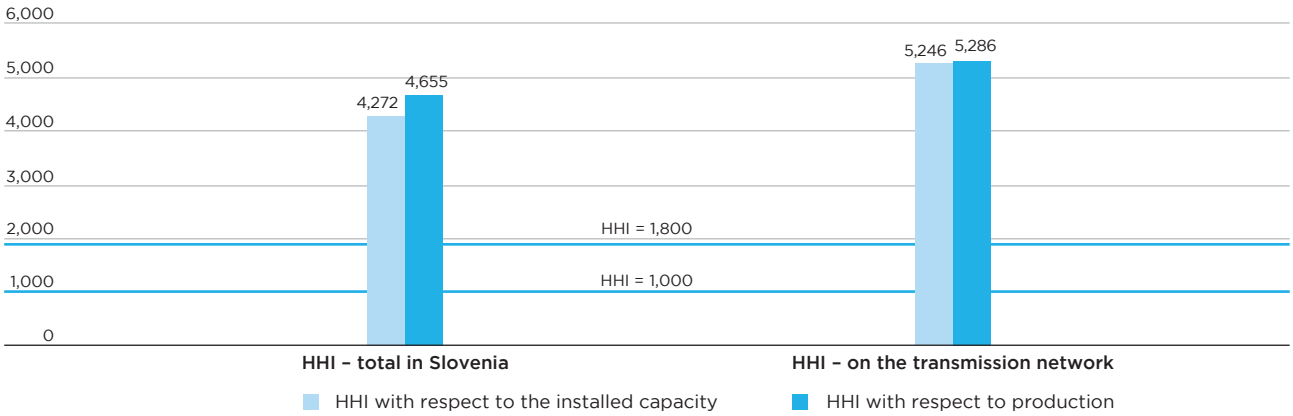
Table 16: HHI with respect to production

Producer	Market shares with respect to production	
	Total in RS	On the transmission network
HSE	62.4 %	66.8 %
GEN energija	26.4 %	28.3 %
TE-TOL	3.7 %	4.0 %
Other small producers (on the transmission network)	0.8 %	0.8 %
Other small producers (on the distribution network)	6.6 %	-
Total	**100.0%**	**100.0%**
HHI with respect to production	**4,655**	**5,286**

Sources: Companies's data

In 2011 were HHIs still very high and significantly exceeded the upper limit of the medium concentration (HHI = 1,800), 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.

Figure 15: HHI of the production companies



Sources: Companies' data

3.2.2.3 The business operations of production companies

According to the unaudited financial statements, the companies for electricity production finished 2011 with a net profit of €25.71 million, which was 5% less than in 2010. In 2011 the best financial results were achieved by the Dravske elektrarne Maribor, contributing 40.8% of the total generated amount.

Table 17: Net profits of the companies for electricity production

In mio EUR

	2010	2011	Index 11/10
Dravske elektrarne Maribor	12.98	10.50	80.9
Savske elektrarne Ljubljana	0.63	0.77	122.2
Soške elektrarne Nova Gorica	9.70	6.16	63.5
Hidroelektrarne na spodnji Savi	0.59	0.45	76.3
Termoelektrarna Brestanica	1.65	1.07	64.8
Termoelektrarna Šoštanj	4.20	6.06	144.3
Termoelektrarna Trbovlje	-0.45	0.05	-11.1
Termoelektrarna toplarna Ljubljana	-2.24	0.65	-29.0
Nuklearna elektrarna Krško	0.00	0.00	
Total	**27.06**	**25.71**	**95.0**

Sources: Companies' data (unaudited financial statements)

At the end of 2011 the companies for electricity production had 2,265 employees, of which the hydroelectric power plants employed 559, the thermoelectric power plants employed 1,083, and the Krško Nuclear Power Plant employed 623 staff members. In comparison with 2010 the number of employees in the thermoelectric power plants decreased by 10 employees, or 0.9%, the number of employees in the Krško Nuclear Power Plant decreased by 32 employees, or 5.4%, and the number of employees in the hydroelectric power plants increased by 9, or 1.6%.

Table 18: Number of employees in the companies for electricity production

	2010	2011	Index 11/10
Dravske elektrarne Maribor	282	285	101.1
Savske elektrarne Ljubljana	116	115	99.1
Soške elektrarne Nova Gorica	126	133	105.6
Hidroelektrarne na spodnji Savi	26	26	100.0
Termoelektrarna Brestanica	112	117	104.5
Termoelektrarna Šoštanj	488	477	97.7
Termoelektrarna Trbovlje	209	204	97.6
Termoelektrarna toplarna Ljubljana	284	285	100.4
Nuklearna elektrarna Krško	591	623	105.4
Total	**2,234**	**2,265**	**101.4**

Sources: Companies's 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-percent share. HSE and GEN energija are 100-percent owned by the state.

Table 19: Ownership structure of the companies for electricity production

	Republic of Slovenija	Holding slovenske elektrarne, d.o.o.	GEN energija, d.o.o.	Javno podjetje Energetika Ljubljana, d.o.o.	Other shareholders	Dravske elektrarne, d.o.o.	Hrvatska elektroprivreda, d.d.
Dravske elektrarne Maribor		100.0%					
Savske elektrarne Ljubljana			100.0%				
Soške elektrarne Nova Gorica		100.0%					
Hidroelektrarne na spodnji Savi		51.0%	12.6%		5.6%	30.8%	
Termoelektrarna Brestanica			100.0%				
Termoelektrarna Šoštanj		100.0%					
Termoelektrarna Trbovlje		81.3%			18.7%		
Termoelektrarna toplarna Ljubljana	14.8%			85.2%			
Nuklearna elektrarna Krško			50.0%				50.0%

Source: Companies' data

3.2.2.4 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., which also operates in the Republic of Serbia. On 31 December 2011, there were 31 full members participating at the Slovenian electricity exchange, which was 5 more comparing with the previous year.

In 2011 BSP, Regional Energy Exchange took over the key role in the market coupling of Slovenia and Italy. Market coupling took place on 1 January 2011 and contributed significantly on increased liquidity of the Slovenian electricity exchange, thus all available CBTCs at the Slovenian-Italian border were allocated through implicit auctions, therefore by trading with energy on exchange. Increased liquidity in 2011 enabled the Slovenian stock market to get real stock market index and real hourly electricity prices.

In 2011, participants who trade at the BSP, could traded in auction trading and continuous (spot) trading. In the auction trading the participants can submit and withdraw their bids till the end of the trading. The transactions are concluded after the end of the trading. In the continuous trading, the participants can enter and withdraw their pending offers, monitor the current prices and have an insight into the book of the bids. The transactions can be closed as soon as there are overlaps in the form of the supply and demand. In the auction trading traders could trade can trade only with hourly products (for each hour between 00.00 and 24.00), while in the continuous market the participants traded with different products. However, in 2011 the traders in the Slovenian stock market used only auction trading. Besides mentioned stock exchange transaction market participants had in 2011 possibility of the clearing of the transactions concluded outside the exchange (OTC clearing), but no deal was concluded in this area.

At the annual level, the total amount of traded energy was 1,527,966 MWh. This is substantially more than in the year 2010, when amounted to 195,433 MWh. Trading increased significantly in comparison with the previous year, mainly because market coupling with Italy. In the context of market coupling trading volume amounted to 1,132,441 MWh, which means that even without it in the stock exchange 395,525 MWh of electricity were sold or bought, and which is more than double amount in comparison with 2010, when market coupling did not yet take place.

In 2011, the average price for the Base was 57.20 EUR/MWh, and for Euro-peak 64.67 EUR/MWh, which was 22.5% more for Base, and 20.8% more for Euro-peak in comparison with the previous year. In the same period on the German EEX Base prices increased from 44.5 to 51.1 EUR/MWh, and for Euro-peak from 55.0 EUR/MWh to 61.1 EUR/MWh. Rate of increase as well as average values were in 2011 on Slovenian market higher than in Germany. Among the reasons for this increase is certainly the introduction of market coupling with Italy, where prices are among the highest in Europe.

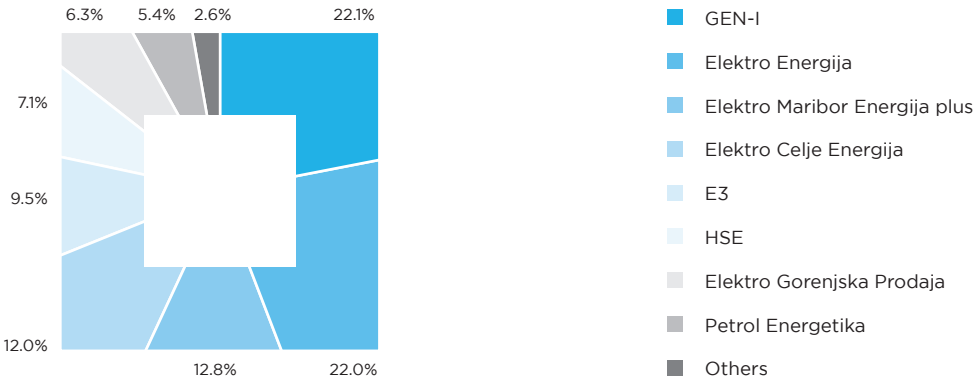
In 2011 BSP, Regional Energy Exchange joined in the European project PCR (Price Coupling of Regions), purpose of which is to prepare all the details for the introduction of the European target model for allocating CBTCs for a day ahead, thus price coupling of European electricity markets.

3.2.3 Supply and the retail market

3.2.3.1 The suppliers in the retail market

In 2011 sixteen suppliers were active in the retail market supplying electricity that under contracts delivered electricity to large customers connected to the transmission network, and to 925,283 business and household customers connected to the distribution network. It was possible to buy electricity on the power exchange in Slovenia (Borzen), and on foreign exchanges according to the capacity – availability of cross-border transmission paths.

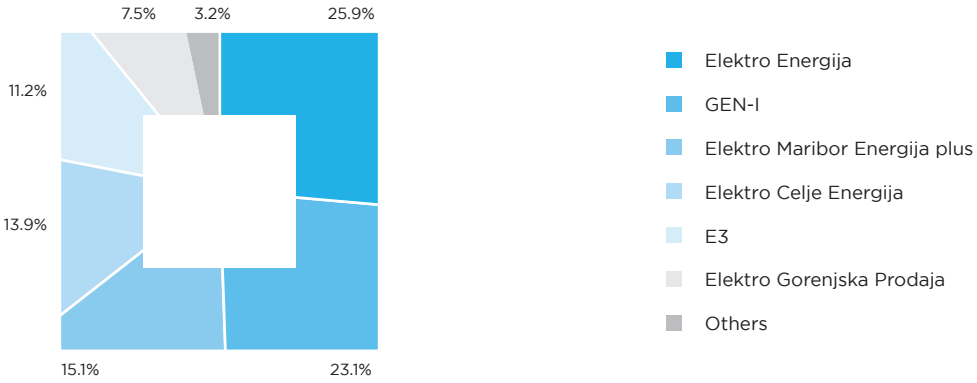
Figure 16: Market shares of the electricity suppliers to all customers at the end of 2011



Sources: Companies' data

At the end of 2011 the end customers in Slovenia were supplied with 12.3 TWh of electricity. GEN-I and Elektro Energija shared the largest market share, each by almost more than 22%; the latter decreased its market share for almost 3%. GEN-I increased its market share for almost 2%. Petrol Energetika, which at the end of 2011 supplied almost 5.4% of customers (mainly business customers), increased its market share for 3%.

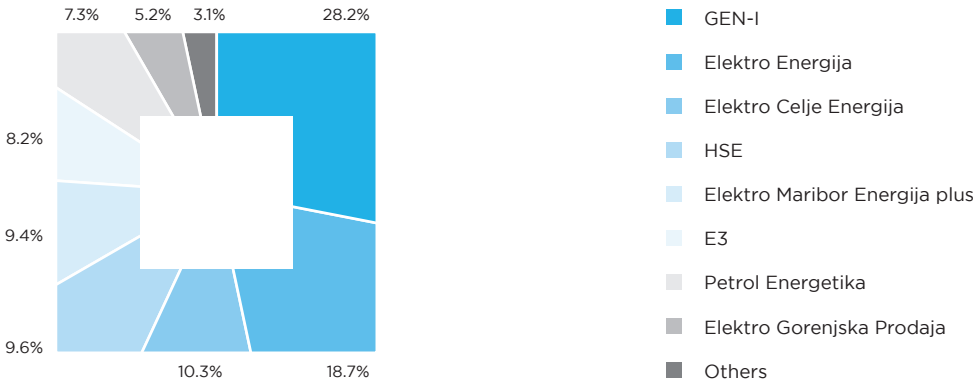
Figure 17: Market shares of the suppliers to the customers on the distribution network at the end of 2011



Sources: Companies' data

With respect to the market shares of the suppliers to the customers on the distribution network, Elektro Energija had the largest share, but nevertheless it lost 2.7%. On the other hand, GEN-I increased its share by 3.7%. Other suppliers kept almost the same market shares in comparison with 2010.

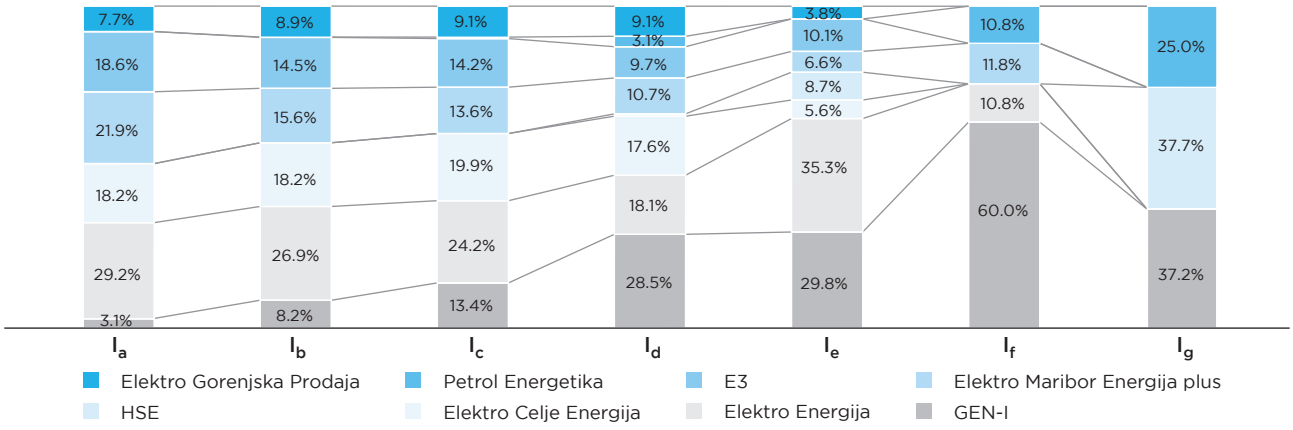
Figure 18: Market shares of the suppliers to the business customers at the end of 2011



Sources: Companies' data

With respect to business customers in 2011 the largest share had GEN-I with almost 28.2%. Elektro Energija was second with almost 10% less. Other companies were represented by relatively the same market shares, between 5 and 10%.

Figure 19: Market shares of suppliers to the business customers at the end of 2011 (new methodology)



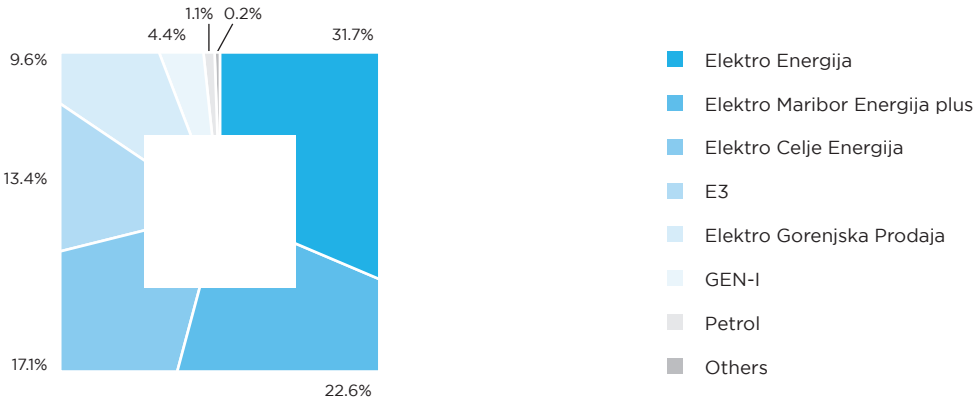
Sources: Companies' data

Figure 19 shows the market shares of suppliers to the business customers under the new methodology according to the customers' group. Customers 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 has a dominant market share in the group I_f, with 60%, which represents the largest share of all groups. With the growth of annual consumption, generally, number of active suppliers decreases. There are genuine only three suppliers to the group with the largest consumption (I_g) - GEN-I, HSE and Petrol Energetika.

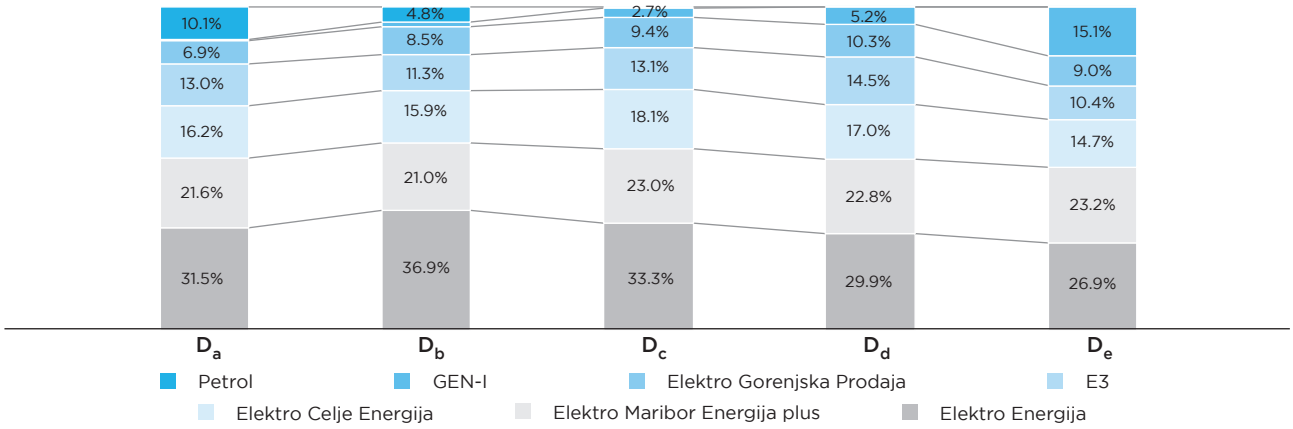
Figure 20: Market shares of the suppliers to the household customers at the end of 2011



Sources: Companies' data

With respect to the market shares of the suppliers to the household customers, Elektro Energija had the largest share, supplying almost one third of all households in Slovenia. GEN-I supplied little more than 4.4% of households.

Figure 21: Market shares of the suppliers to the household customers with respect to the consumption group and the end of 2011 (new methodology)



Sources: Companies' data

Figure 21 shows the dispersion of market shares to the household customers according to the new methodology. Groups are:

- D_a: annual consumption under 1,000 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

An overview of market shares of suppliers, which before operated within distribution companies, shows a rather similar representation of the shares of customers groups. Petrol had the largest share in the market segment of customers with lower annual consumption (groups D_a and D_b); market share of GEN-I is the largest in the group of customers with the highest annual consumption (D_e).

3.2.3.2 The degree of competitiveness in the retail market

Table shows the entire retail market, which includes large eligible customers connected to the transmission network.

Table 20: Market shares of suppliers to all customers in Slovenia

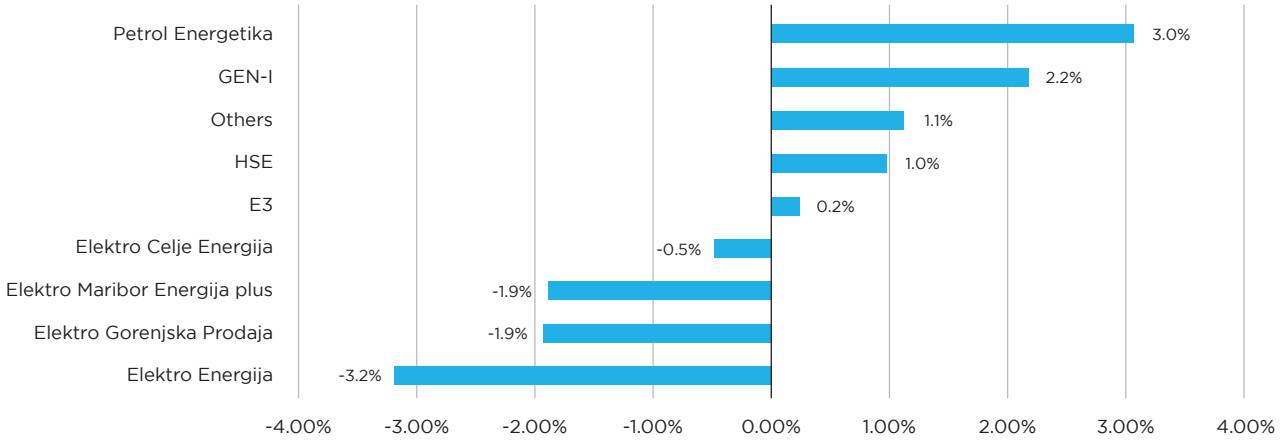
Supplier	Supplied energy (GWh)	Market share
GEN-I	2,749.7	22.1%
Elektro Energija	2,743.5	22.0%
Elektro Maribor Energija plus	1,597.8	12.8%
Elektro Celje Energija	1,499.2	12,0%
E3	1,187.5	9.5%
HSE	886.4	7.1%
Elektro Gorenjska Prodaja	787.7	6.3%
Petrol Energetika	678.2	5.4%
Others	319.6	2.6%
Total	**12,449.6**	**100.0%**
HHI suppliers to all customers		**1,501**

Sources: Companies' data

Look at the entire market segment, which includes customers on the transmission network, shows medium market concentration of, since HHI was below the upper limit of 1,800.

Figure 22 shows that in 2011 the largest market share gained Petrol Energetika, namely 3%, and a little more in the entire retail market Elektro Energija lost. GEN-I once again reinforced its market share, this time by 2.2%.

Figure 22: Changes to the market shares of the suppliers to all customers in 2011 with respect to 2010



Source: Energy Agency

Market shares of the suppliers to the customers on the distribution network are shown below:

Table 21: Market shares of the suppliers to the customers on the distribution network

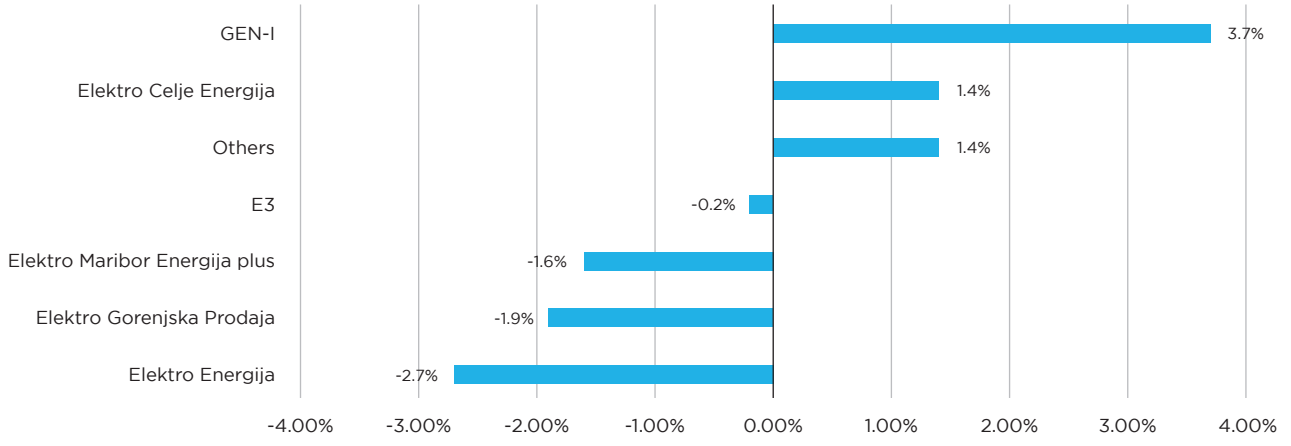
Supplier	Supplied energy (GWh)	Market share
Elektro Energija	2,743.5	25.9%
GEN-I	2,443.7	23.1%
Elektro Maribor Energija plus	1,597.8	15.1%
Elektro Celje Energij	1,473,0	13,9%
E3	1,187.7	11.2%
Elektro Gorenjska Prodaja	788.0	7.5%
Others	340.7	3.2%
Total	**10,574.5**	**100.0%**
HHI suppliers to the customers on the distribution network		**1,822**

Sources: Companies' data

In 2011, none of the companies had a dominant position, as none of them had a share larger than 40%. Despite the dispersed supply the concentration was still high, HHI exceeded 1,800. The market share of Elektro Energija was still the largest, reaching almost 26%. In terms of ownership concentration the degree of concentration is even higher, as companies are in majority owned by the state.

GEN-I increased its market share again, for around 3.7% as shown in Figure 23.

Figure 23: Changes to the market shares of the suppliers to all the customers on the distribution network in 2011 with respect to 2010



Source: Energy Agency

Market shares of the suppliers to the business customers in 2011 are shown in the next table.

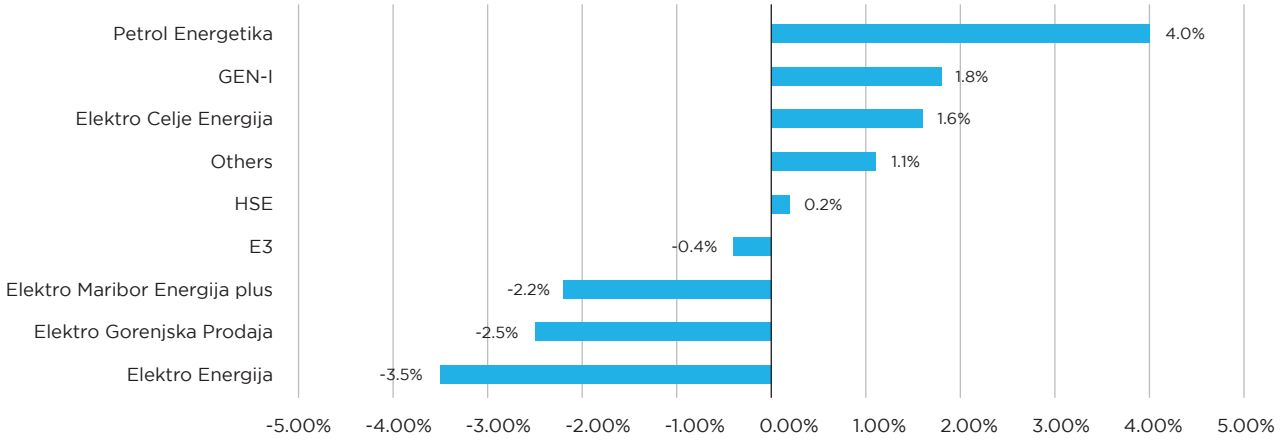
Table 22: Market shares of the suppliers to the business customers

Supplier	Supplied energy (GWh)	Market share
GEN-I	2,609.9	28.2%
Elektro Energija	1,726.2	18.7%
Elektro Celje Energija	951.9	10.3%
HSE	886.4	9.6%
Elektro Maribor Energija plus	872.7	9.4%
E3	758.4	8.2%
Petrol Energetika	673.1	7.3%
Elektro Gorenjska Prodaja	480.1	5.2%
Other	282.4	3.1%
Total	**9,241.1**	**100.0%**
HHI suppliers to the business customers		**1,591**

Sources: Companies' data

Medium market concentration was established in this part of the market, since HHI value was under 1,800. The largest market share had GEN-I, which with a little over 28% contributed the most of the HHI value.

Figure 24: Changes to market shares of the suppliers to the business customers in 2011 with respect to 2010



Source: Energy Agency

Figure 24 shows that in 2011 the largest market share with respect to 2010 gained Petrol Energetika - 4%, followed by GEN-I with 1.8% change. On the other side Elektro Energija decreased its market share for 3.5%.

Market shares of the suppliers to the household customers are shown in the next table:

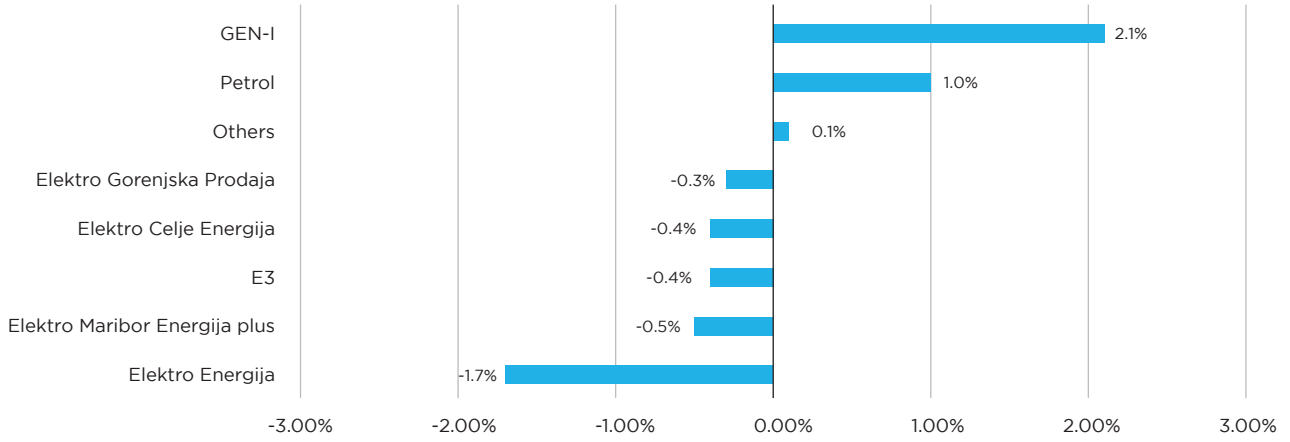
Table 23: Market shares of the suppliers to the household customers

Supplier	Supplied energy (GWh)	Market share
Elektro Energija	1,017.3	31.7%
Elektro Maribor Energija plus	725.1	22.6%
Elektro Celje Energija	547.3	17.1%
E3	429.1	13.4%
Elektro Gorenjska Prodaja	307.7	9.6%
GEN-I	139.8	4.4%
Petrol	36.0	1.1%
Others	6.3	0.2%
Total	**3,208.5**	**100.0%**
HHI suppliers to the household customers		**2,098**

Sources: Companies' data

In the segment of household consumption, the market concentration was high, since HHI exceeded the value of 1,800. The largest market share had Elektro Energija, supplying 31.7% of all household customers, followed by Elektro Maribor Energija plus with 22.6%. Together two suppliers supplied more than half of the household customers.

Figure 25: Changes to the market shares of the suppliers to the household customers in 2011 with respect to 2010

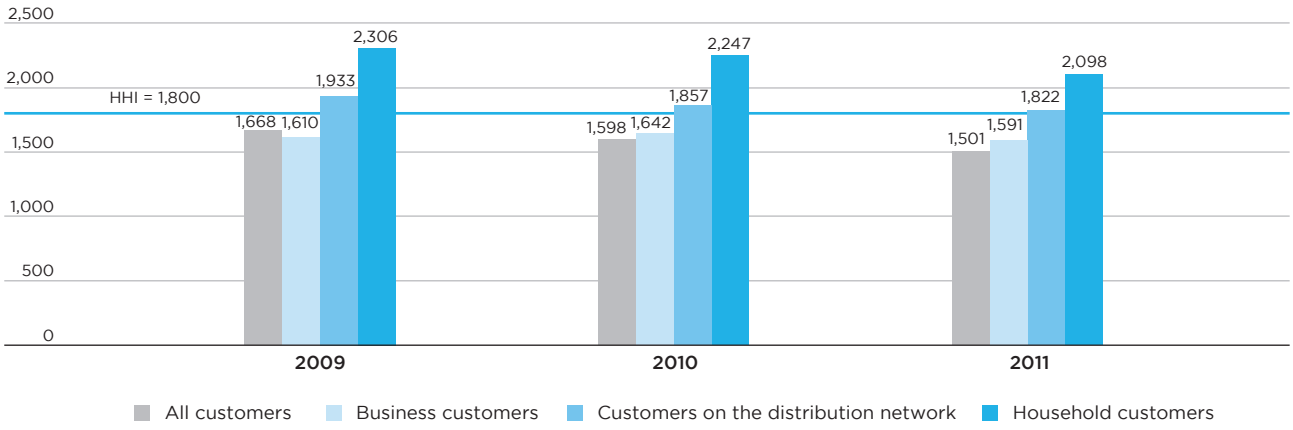


Source: Energy Agency

Figure 25 shows that GEN-I in 2011 again strengthened its market share according to data from 2010. That applies also for Petrol, which recorded positive trend in this segment. All other suppliers decreased their market share.

Trends of HHI in the last three years were in all retail markets negative, indicating a stronger competition between suppliers. Medium concentration (HHI <1,800) can be noticed in the all retail markets. The market for business customers shows exceeded upper limit of medium concentration, while in the household customers market HHI are over 2,000 and indicates high concentration, or even despite negative trend still too low level competition between suppliers.

Figure 26: Trends of the HHIs in retail market for 2009–2011



Sources: Companies' data

3.2.3.3 Comparison of electricity prices for typical customers in the retail market

Electricity prices

The price of electricity supplied includes:

- the use-of-network price,
- the contribution supporting electricity production from domestic energy sources, RES and CHP,
- the contribution for the provision of security the supply by using domestic primary energy sources,
- the contribution supporting energy efficiency programmes,
- the excise duty,
- the value added tax.

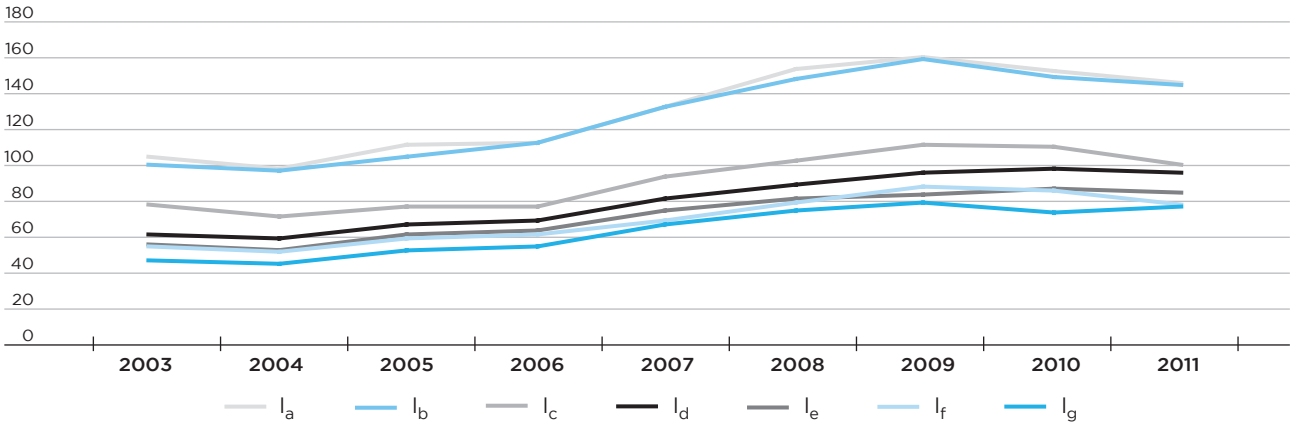
The prices of electricity for industrial customers

The average electricity price for industrial customers without VAT in 2011 decreased for 1%. In the structure of the price without VAT the share for energy amounted to 68%, for the network charge 24%, and the share for contributions and supplements 8% of the final price.

Graph in the Figure 27 shows trends of the electricity prices for typical industrial customers in Slovenia for 2003–2011. Standards customers groups are used:

- I_a: annual consumption 30 MWh, a power of 30 kW
- I_b: annual consumption 50 MWh, a power of 50 kW
- I_c: annual consumption 160 MWh, a power of 100 kW
- I_d: annual consumption 1,250 MWh, a power of 500 kW
- I_e: annual consumption 2,000 MWh, a power of 500 kW
- I_f: annual consumption 10,000 MWh, a power of 2,500 kW
- I_g: annual consumption 24,000 MWh, a power of 4,000 kW

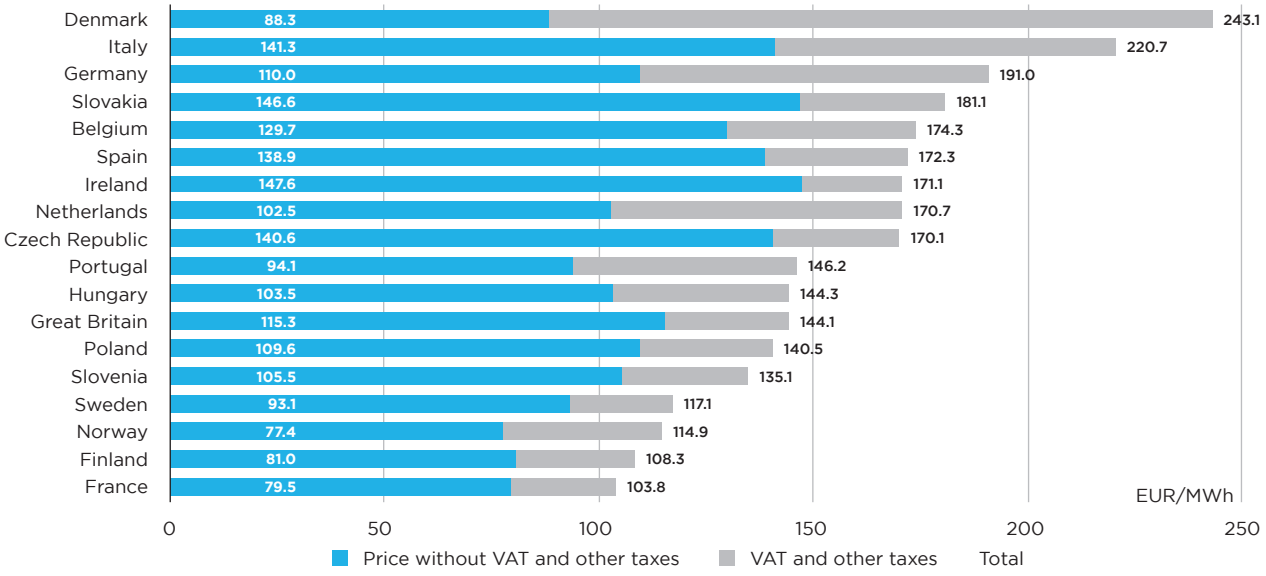
Figure 27: Trends of the electricity prices for typical industrial customers in Slovenia for 2003–2011 (old methodology Eurostat)



Source: Statistical Office of the Republic of Slovenia

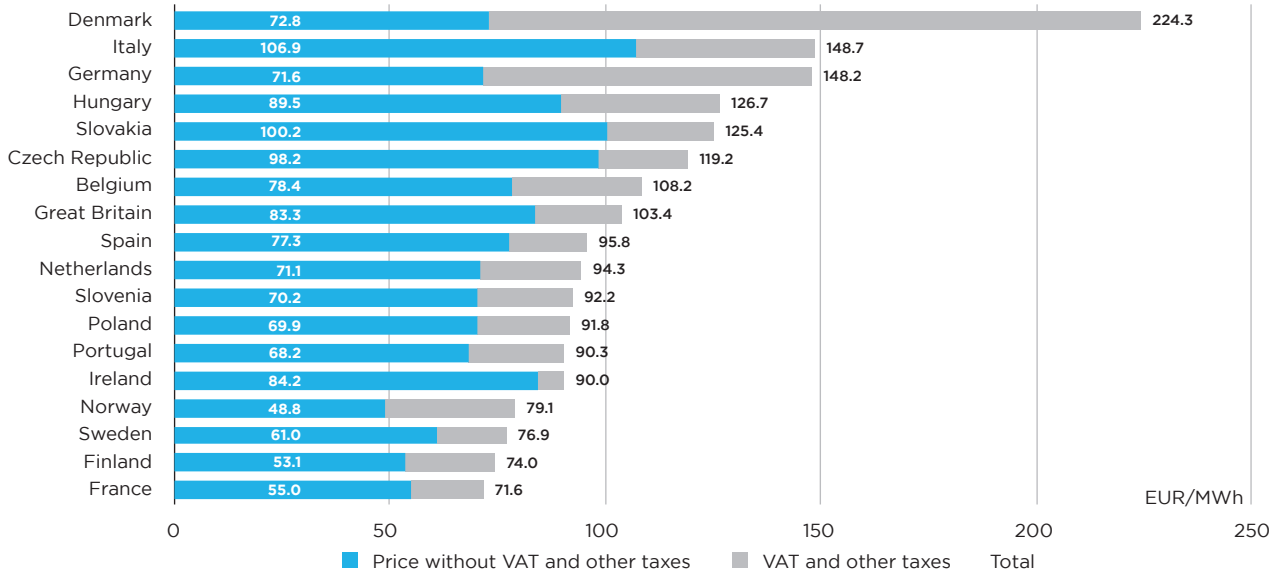
Below is a comparison of electricity prices in some EU countries for the second half of 2011 for two typical industrial customers selected inline with the new methodology Eurostat. Final prices are shown, in which for Slovenia the price for energy, the use-of-network price, excise duties, contributions and VAT are included.

Figure 28: Comparison of electricity prices for a typical industrial customer with an annual consumption of 20 to 500 MWh in the EU and Slovenia for the second half of 2011



Source: Eurostat

Figure 29: Comparison of electricity prices for a typical industrial customer with an annual consumption of 20 to 70 GWh in the EU and Slovenia for the second half of 2011



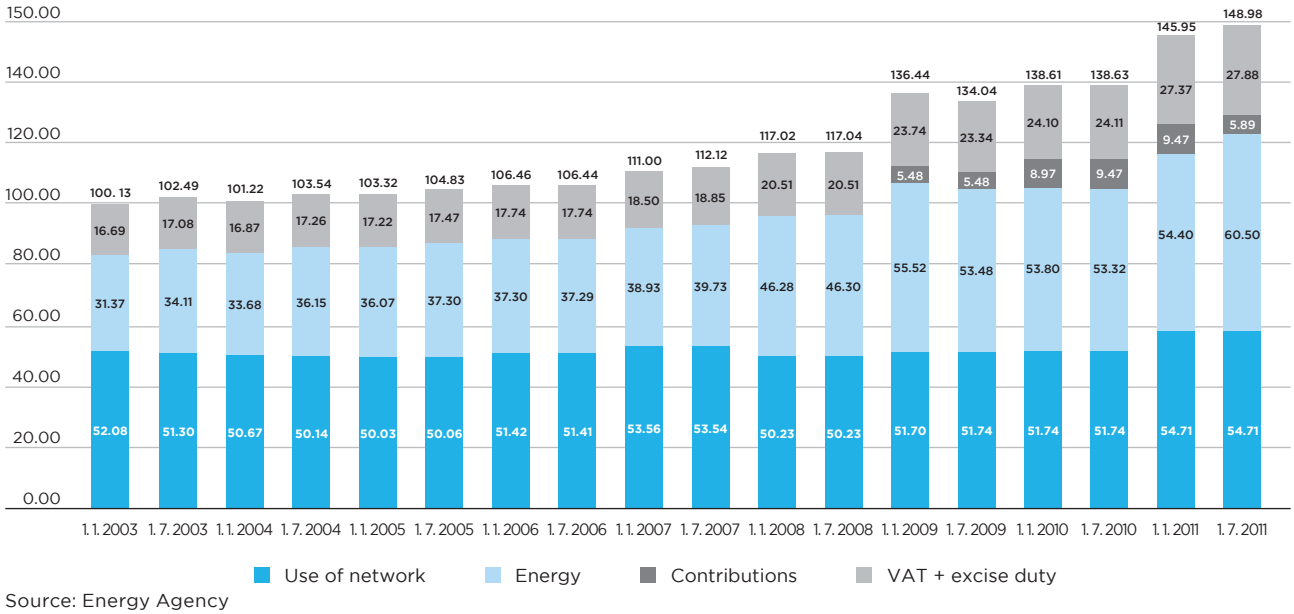
Source: Eurostat

The average electricity price for industry, without VAT, in Slovenia for the second half of 2011 was 84.1 EUR/MWh.

The prices of electricity for household customers

Electricity is offered in variety of packages that take into account consumption, mode of consumption, and whether the electricity is produced from RES.

Figure 30: Trend of the final electricity price for a typical household customer (D_c – 3,500 kWh per year) in EUR/MWh

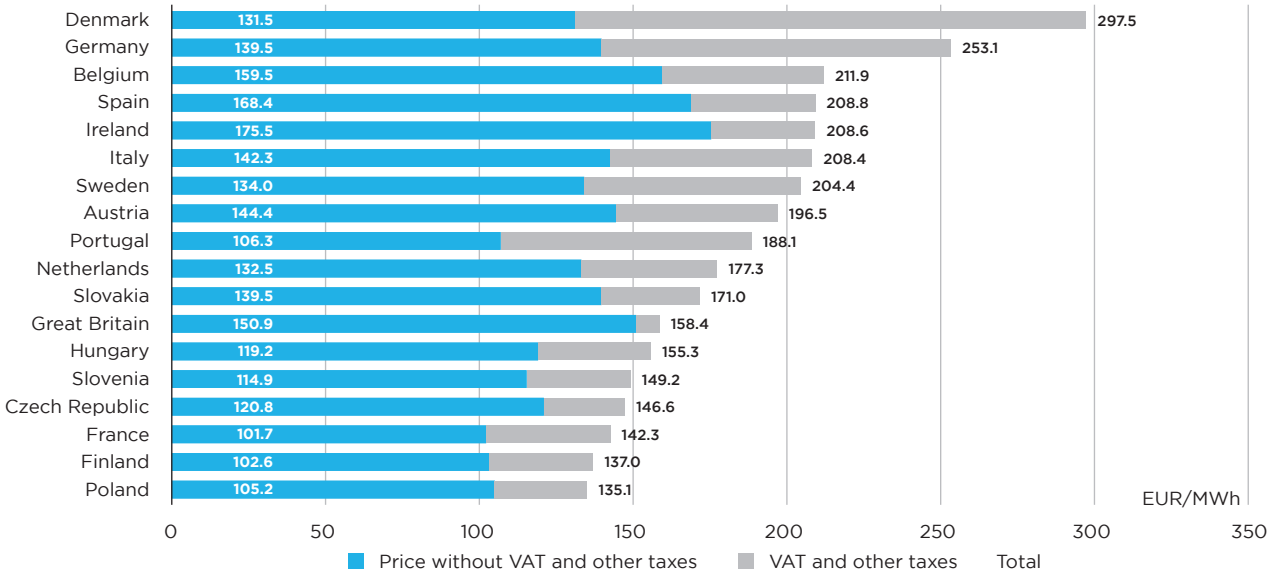


Source: Energy Agency

The final electricity price for a typical household customer D_C was, between 2003 and the end of 2008, increasing with an average annual growth of 3.1%; during this time the use-of-network price was relatively stable, and was around 51 EUR/MWh per typical customer D_C. 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 all customers increased by almost 19% percent. Between 2009 and 2010, the final price for household customers increased, despite lower energy prices and relatively stable price for the use of network, because of the contributions that are intended to support the production from domestic sources, in cogeneration and from renewables, and for supporting programs to increase the efficiency of electricity use. In 2011 the shares of the-use-of the network price and electricity increased in the total price of electricity.

A comparison of electricity prices in some EU countries for the second half of 2011 for a typical household customer according to the new methodology Eurostat is shown below. Final prices, which include the price for energy, the use-of-network price, excise duties, contributions and VAT are presented.

Figure 31: Comparison of the final electricity prices for a typical household customer with an annual consumption of 2500 to 5000 kWh in EU and Slovenia for the second half of 2011



Source: Eurostat

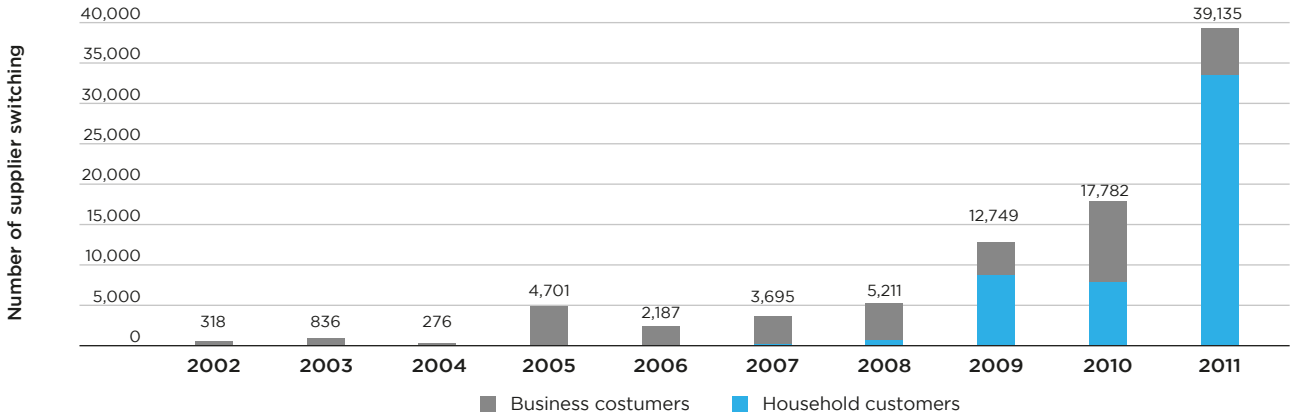
The average retail price of electricity for household in Slovenia for the second half of 2011 was 149.2 EUR/MWh.

The final price of electricity for households with an annual consumption of 2,500 do 5,000 kWh amounted to 81% of average price in the EU (EU27), and for industrial customers 89% (group I_C, without VAT) (Statistical Office of the Republic of Slovenia, 2nd half of 2011).

3.2.3.4 Supplier switching

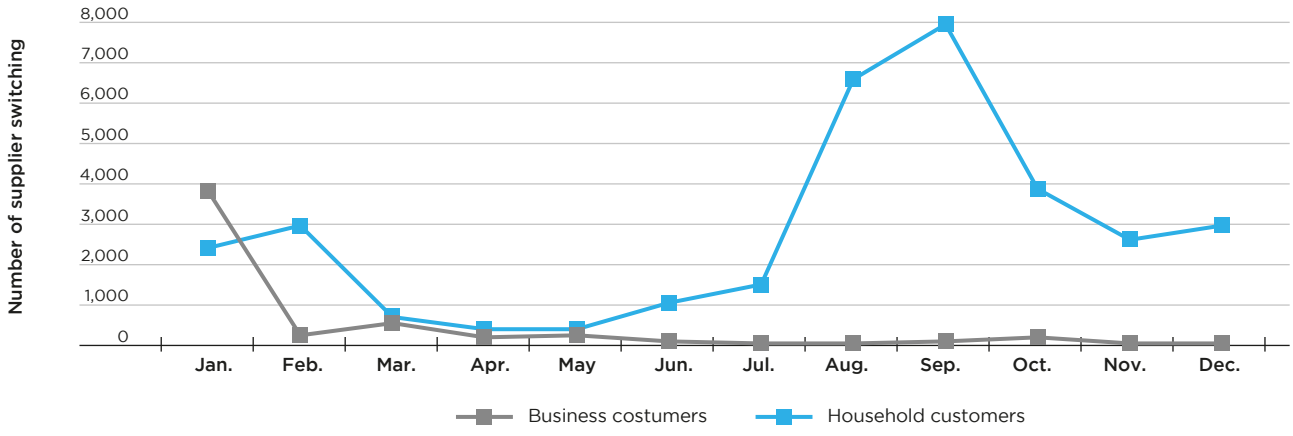
In 2011, 39,135 customers switched their supplier, of which the vast majority (33,518) were the household customers. This is again a big number of switching rate, and the biggest number since the market opening. In 2010, the number of suppliers switching was 17,782.

Figure 32: Number of supplier switching for 2002-2011



Sources: System operators

Figure 33: Trend of supplier switching in 2011 with respect to the type of consumption



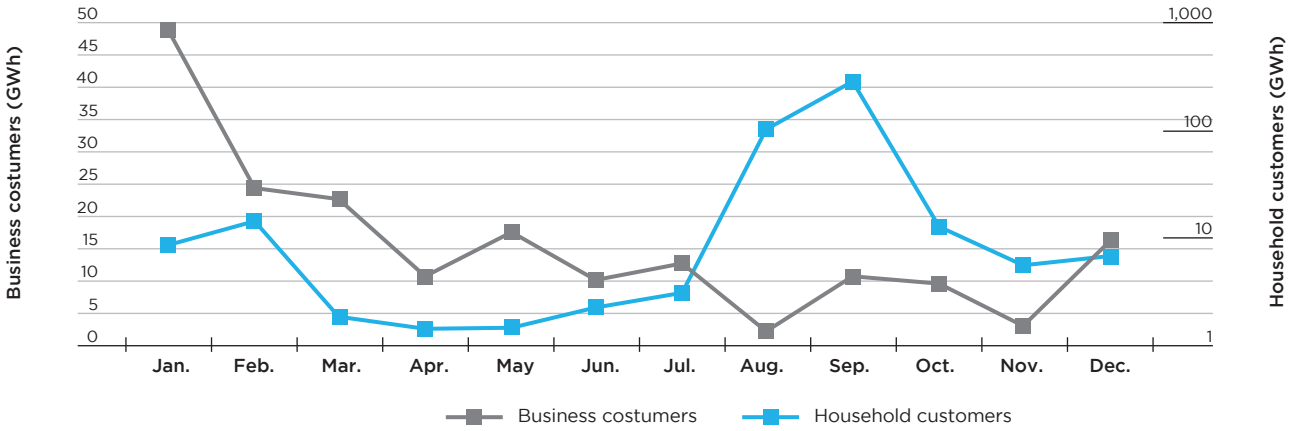
Sources: System operators

Most of business customers decided to switch supplier at the beginning of the year when the contracts usually expire. The share of business switching in 2011 represented the largest share of switching in this part of the market.

Household customers switched supplier mostly from January to February and from August to September, when suppliers extendedly promote new offers (packages) for the supply of electricity.

Figure 34 shows dynamics of supplier switching with respect to the amount of energy. There is a close correlation between the amount of energy and number of switches. For business customers amounts are much higher at the beginning of the year.

Figure 34: Dynamics of supplier switching with respect to the amount of electricity



Sources: System operators

3.2.3.5 Web application – Comparison of suppliers

In order to facilitate price transparency in the retail electricity market (mainly for household customers 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:

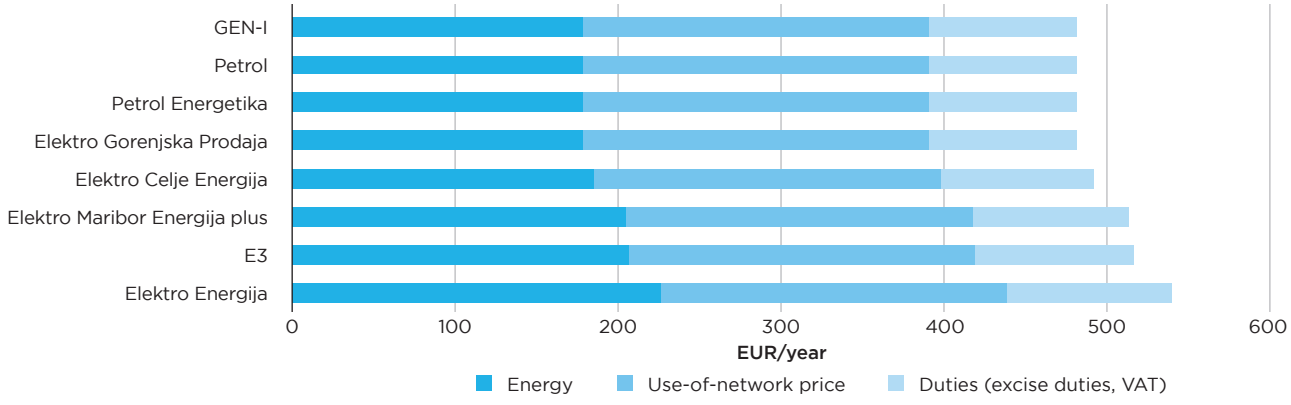
- energy,
- network charge with contributions,
- contributions according to the EA,
- excise duties,
- VAT.

Standard customers 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 35 shows the comparison between the offers. Amounts represent the annual costs of a household in standard customer group D_C, the calculation takes into account the best offer (value for money) of each supplier (other that a conditional offer):

Figure 35: Comparison of the best offers for the supplied electricity for the group D_C

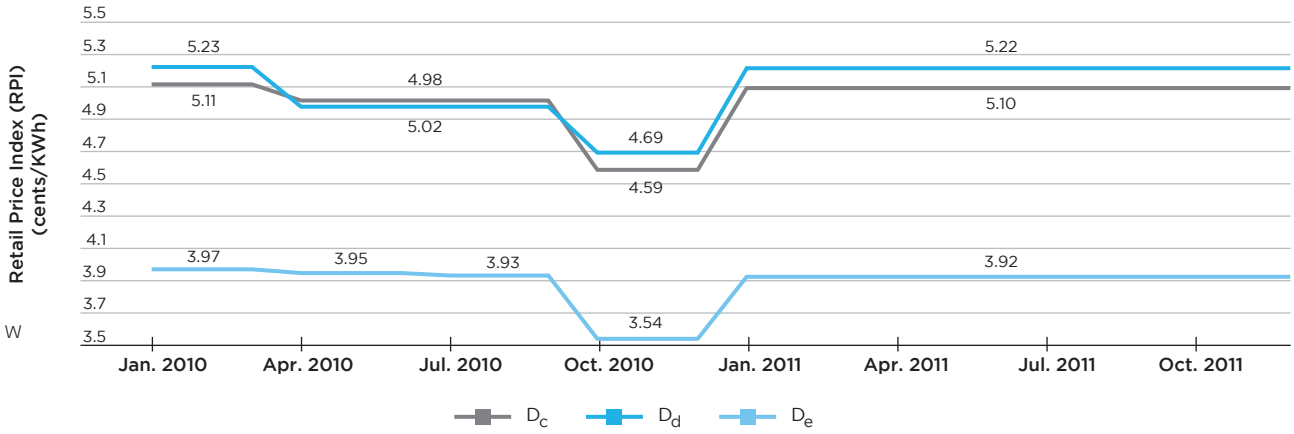


Source: Energy Agency, December 2011

The database of the web application the Comparison of suppliers offers data for monthly reports on prices for electricity. The retail price index represents the lowest price for electricity of all valid offers of suppliers in a given period (except for conditional offers).

Figure 36 shows trends of the retail price index (RPI) for standard customers groups D_c, D_d and D_e in period 2010–2011. Indices had negative trend in 2010, and in 2011 strengthening again and did not change until the end of 2011.

Figure 36: Retail market indices for standard customers groups D_c, D_d and D_e in 2010-2011



Source: Energy Agency

3.2.4 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 web sites 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 and Borzen.

In the retail market the Energy Agency in 2011 made a significant contribution to the transparency of prices and offers for household customers and thus contributed to the functioning of competition. For this purpose, it delivered web applications for the comparison of offers and checking bills for electricity. Moreover, it provided e-services for monitoring individual offers by sending automatic messages when offers changed. The entire set of web applications was upgraded. It also published monthly report on the supply of electricity and retail market index for household customers.

In accordance with the provisions with 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 worked on solving the problems of current projects on information exchange in the electricity market.

The Competition Protection Office did not initiate any other proceedings relating to the restriction of competition in the electricity market.

3.3 The protection of electricity customers

The household customers 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.

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.

For the suppliers, in addition to the legislation governing the general costumer protection, protection of costumers or consumers provided in energy legislation is obligatory. General Conditions for the Supply and Consumption set some binding issues that must be arranged in these contacts and comply with the requirements of European directives.

The suppliers of electricity have to, at least once a year, informed customers about their consumption and the composition of the production resources of consumed electricity. Electricity suppliers are obliged on electricity bills and in its promotional materials disclose:

- shares of production resources in the overall structure of electricity of each supplier in the past year,
- provide at least websites or other sources of information, where one can get information on the impact of the existing structure of production on environment (carbon dioxide emissions CO_2, and problems relating to the nuclear waste.)

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 and others interactive services. Suppliers switching is performed without any costs for a customer. Switching is made by SODO on the first day of the month, if the request was made by the tenth day of the preceding month.

The protection of vulnerable customers is one of the most important forms of customer protection, and it is regulated by the EA. This act determines that a system operator should not stop the amount of supplied electricity or gas below the limit that is, with respect to circumstances, necessary so that the life and health of a customer, and the persons living with the customer, are not threatened. The supplier's costs arising from such a situation are covered by the revenues from the use-of-network price. The supply to vulnerable customers is the responsibility of the system operator, which also carries out the last-resort supply to the customers whose supply contracts were terminated because of the insolvency or illiquidity of the supplier.

This supply has a limited duration, aimed at preventing a situation in which a cus-tomer 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 customer. The prices for the last-resort supply must be publicly available and higher than the market price for the supply to a comparable customer, but not more than 25%. This price is determined by the Energy Agency or SODO. In 2011, three customers were provided by the last-resort supply from the group (from the group – other customers on LV).

The eligibility for the supply of vunerable customers is assed by SODO, on the basis of evidences submitted (a proof of receiving a welfare allowance, medical examination, that the life and health of the customer, and the persons living with the customer, are threatened.) In 2011, no requests for such supply was submitted to SODO.

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.

In Slovenia the customers have the opportunity to exercises the right to appeal, or legal redress and the settling of disputes.

In line with the EA, the user of electricity network has the right to appeal against the decision of a system operator relating to issuing or denying a connection approval. The Energy Agency decides on the appeal. 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 too the network access, the charged use-of network price, an alleged breaches of the general supply conditions and the system operation instructions, or the status of a specific customer.

In line with the general law, the court is responsible for settling the disputes arising from the contractual relationship that are not under the authority of the Energy Agency. Any breaches of the general rules relating to costumers protection are addressed and also appropriately sanctioned by the Market Inspectorate.

In accordance with the provisions from general conditions for the supply and consumption, one of the key elements of a supply contract is an agreement on the mode of dispute settling arising from the contractual relationship.

The general conditions for the supply and consumption give a customer the right to compensate damages, if the system operator interrupted, or stopped, the electricity supply without due cause, if a supply lasted unreasonably long period, if the quality of the electricity does not meet current standards of the contractual agreed value, or if another user has been causing disturbances.

In 2011 the electricity suppliers were publishing the electricity prices for household on their websites. These publications included prices for different products or the electricity supply packets for households.

The DSO was publishing the conditions and electricity prices for the last-resort supply throughout the year.

3.4 Reliability of the electricity supply

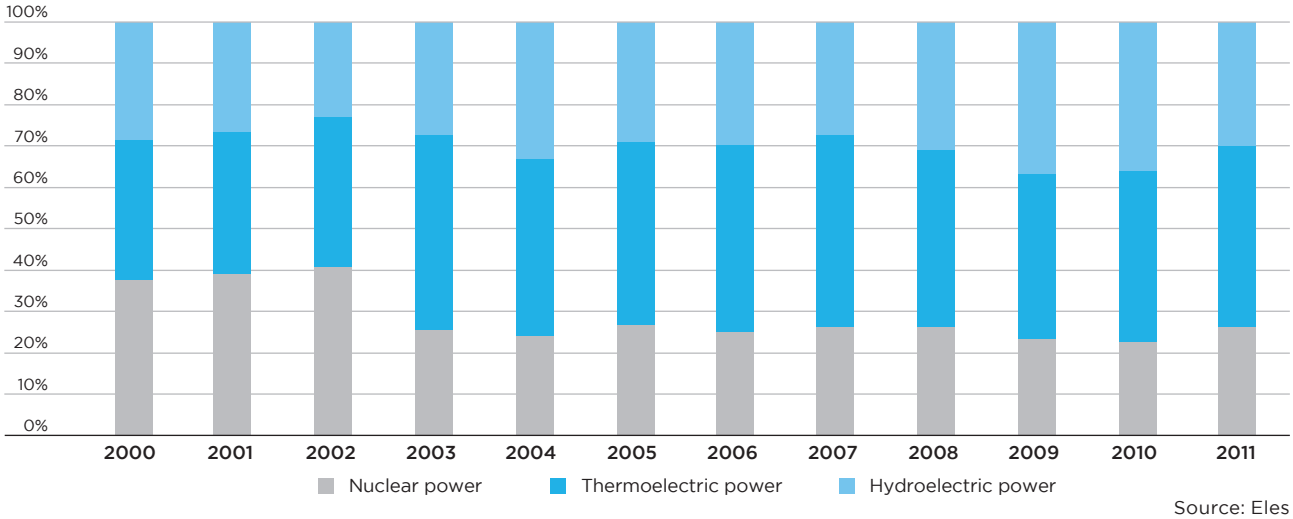
The reliability of the electricity supply to the customers depends on the capacity of the power system and the sufficiency of production sources and energy. We can speak of the two functional aspects of the security of supply - sufficiency of production sources and the security of the network. The sufficiency 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 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 2011 decreased for 5.4% in comparison with the previous year, taking into account half of the production of the Krško NPP. Hydropower and thermo power plants produced less electricity than the year before, while the NPP produced more, but we have to consider that in 2010 a planed reconditioning of the plant was carried out. Since 2000 the structure of the production did not change significantly. The longest share of production belongs to thermo power plants -44%, hydro power plants 30% and 26% nuclear power plant (half of its production considered).

Figure 37: Structure of electricity production on the transmission network for 1999–2011 (period 1999–2002 includes the total production of the Krško NPP)

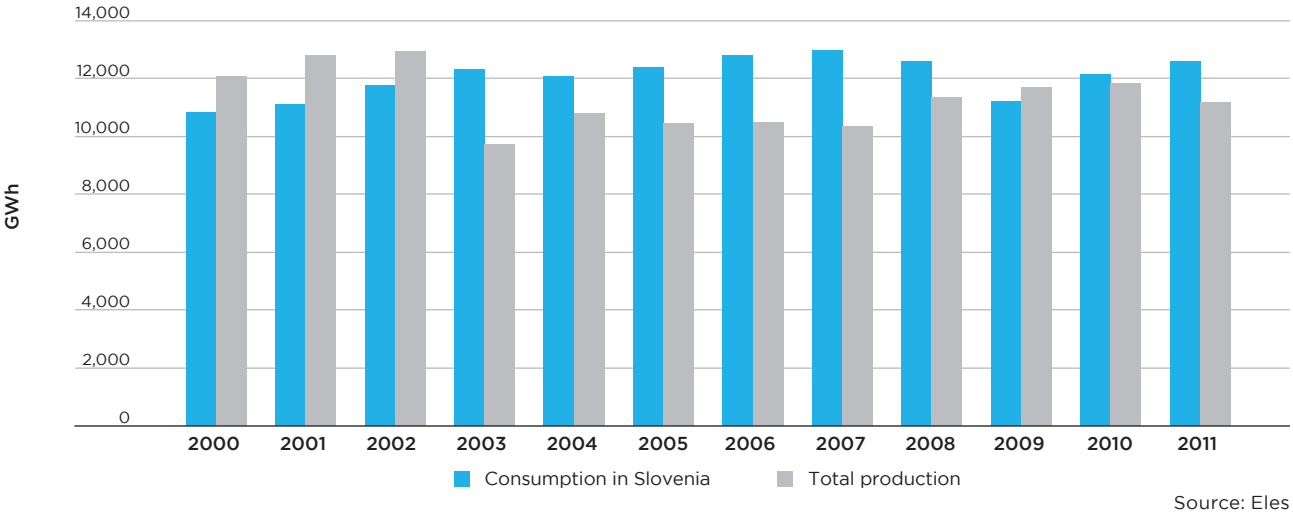


Source: Eles

In 2011 the consumption increased by 37% due to the direct customers, which was higher for 37% in comparison with the previous year. The main reason was the launch of a new electrolysis in the production of primary aluminum at the end of February in Talum. The consumption of the distribution companies increased by 0.5%; PSPP Avče was in the last quarter of 2011 not available and used 21% less energy for pumping water than the year before.

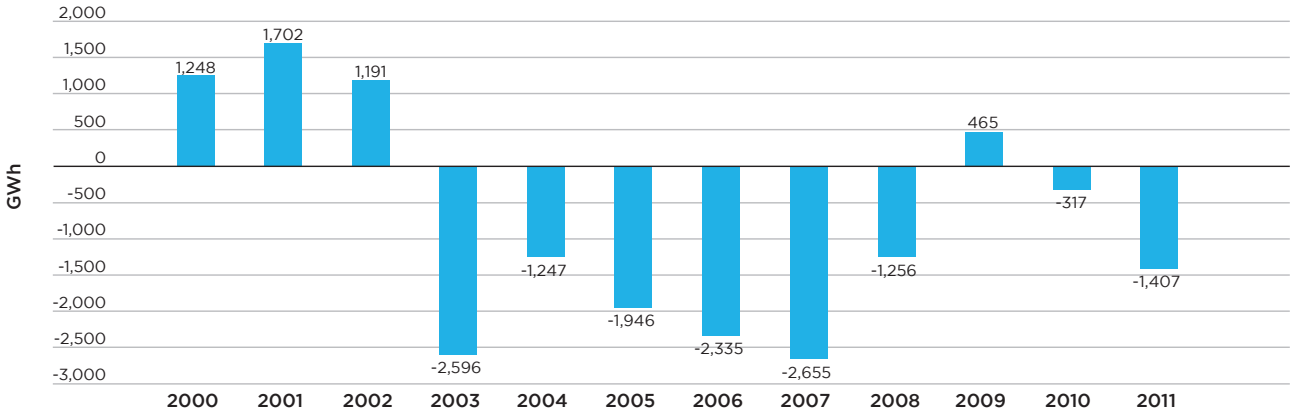
Compliance between production and consumption of electricity is shown in the next two figures. After 2009, when electricity consumption decreased due to economic crisis, which led to surpluses, in 2011 deficit occurred that was further increased in 2011.

Figure 38: Production and consumption of electricity on the transmission network for 1999–2011 (period 1999–2002 includes the total production of the Krško NPP)



Source: Eles

Figure 39: Surpluses and deficits of electricity on the transmission network for 1999–2011 (period 1999–2002 includes the total production of the Krško NPP)



Source: Eles

Peak load, this is the maximum hourly average load in the year, increased by 0.5% in comparison with the previous year. Part of the increase can be attributed to the electrolysis in Talum. As a result, change of the peak load in the network occurred. Consumption peak which used to occur in January or December, was in 2011 recorded at the beginning of March.

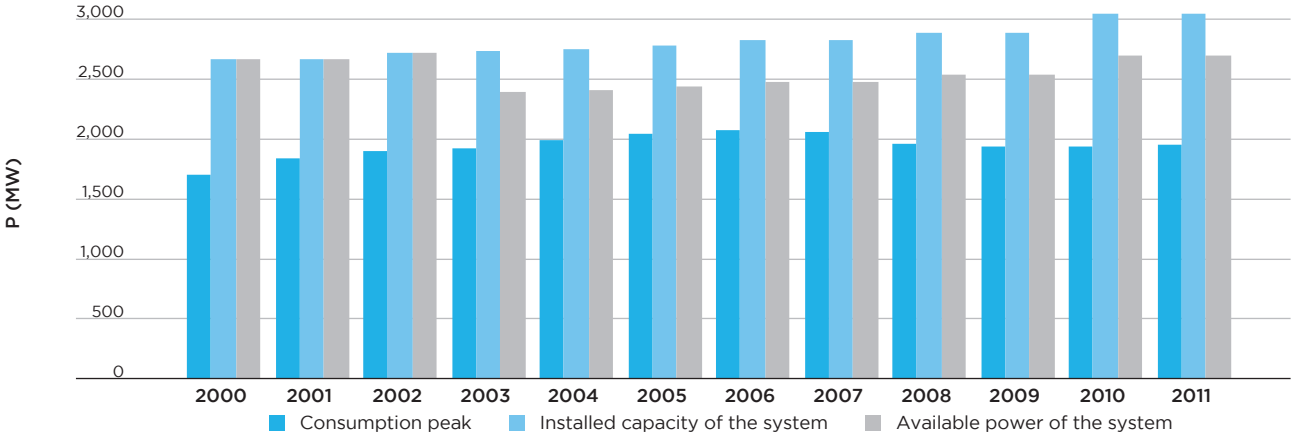
Comparing peak loads in the past decades, we can establish that the value of each year increased over the years, except for 2007 and 2009, when values significantly decreased. Still, the consumption peak in 2011 did not reached the one from 2004, when amounted to 1,991 MW.

Following figure shows consumption peak, installed capacity of production facilities and the power available to the Slovenian market for 2000–2011.

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 2011 no new production capacities were connected to the Slovenian transmission network, so the values of the installed capacity and power available to the Slovenian market are unchanged. Figure below shows that Slovenia production system fully covers the needs for power.

Figure 40: Installed capacity of production facilities, the power available for the Slovenian market facilities and the peak consumptions for 2000–2011



Source: Eles

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

The TSO for the electricity network produced a TYNDP for the transmission network in Slovenia from 2011 to 2020. 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 forecasting of final consumption, an estimation on consumption of electricity from the transmission network was prepared. Peak-power consumption of the transmission network was determined as the 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 24: Changes to the production facilities for 2012–2020

	Installed capacity (MW)	Expected year of change
Hydroelectric power plants		
Zlatoličje (renovation)	12	2012
Krško	41	2012
Brežice	42	2014
Mokrice	30	2015
Suhadol	41	2015
Učja	26	2015
Trbovlje	33	2016
PSPP Kozjak	440	2016
Moste 2,3	48	2017
Renke	34	2018
Wind power plants		
Dolenja vas	80	2015
Senožeška Brda	100	2015
Volovja reber	30	2015
Selivec-Vremščica	134	2015
Thermoelectric power plants		
TET PB I + II	-58	2013
TEŠ block III	-50	2014
TEŠ block IV	-248	2014
TEB TA 1 in TA 2	-21	2014
TE-TOL block IV	118	2014
TET PPE	291	2015
TET PE	170	2015
TEB PE 4 50	200	2015
TEŠ block VI	545	2016
TEB PB 1, 2 in 3	-63	2016
TE-TOL block V	80	2020
TE-TOL blocks I in II	-68	2020

Source: Eles

Table 24 shows changes to be made by the Slovenian electricity producers as expected in the development plan for the transmission network. The positive power values 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.

3.4.3 Measures to cover peak demand and shortages of electricity

In 2011, the total amount of unsupplied electricity on the transmission network was 69.7 MWh, which was significantly less than the year before, when mainly due to single event – strong wind in Primorska Region amounted to 255.6 MWh.

Two main reasons, which are together responsible for more than 50% of unsupplied electricity, are breakdown of the measuring current transformer in DTS Dekani and failure of 110 KV Divača–Ajdovščina I and II transmission line, after the operation of distance protection that was activated due to lightning strike. Breakdown of this line caused power failure of the entire loop of the north Primorska Region. Other causes for unsupplied electricity were fallen trees, operations of distance protection, switching operations faults, storms and operations of pole discrepancy protection.

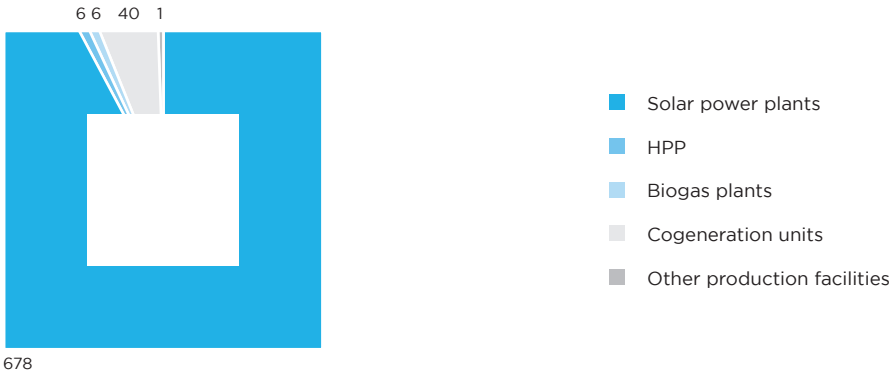
Despite the fact that in 2011 domestic sources for electricity production were not entirely sufficient to cover Slovenian electricity demand, the supply was never interrupted as a result of shortage of production sources.

3.5 Renewable energy sources and cogeneration of useful heat and power

3.5.1 Renewable energy sources and cogeneration of useful heat and power

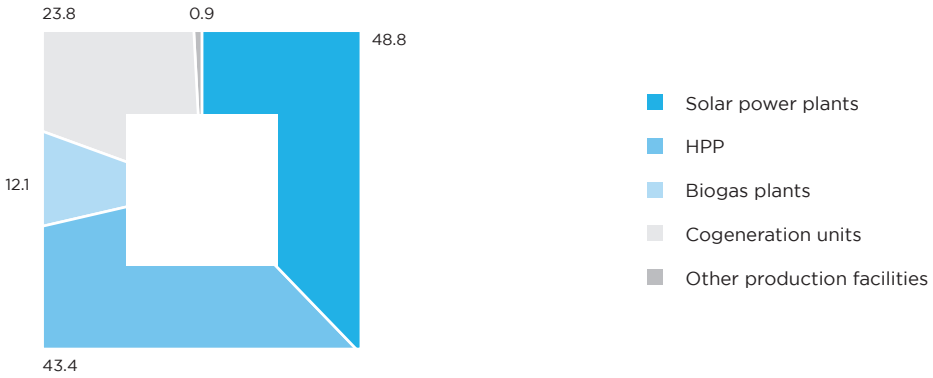
In 2011 the Energy Agency issued 731 declarations for a production facility using RES or for cogeneration facilities. Most of declarations were due to a favourable rate of support, issued for solar power plants. For some production facilities (mainly CHP), for which the validity of existing declaration expired, new declarations were issued.

Figure 41: Number of the issued declarations for production facilities in 2011



Source: Energy Agency

Figure 42: Net capacity in MW of production facilities with issued declarations in 2011

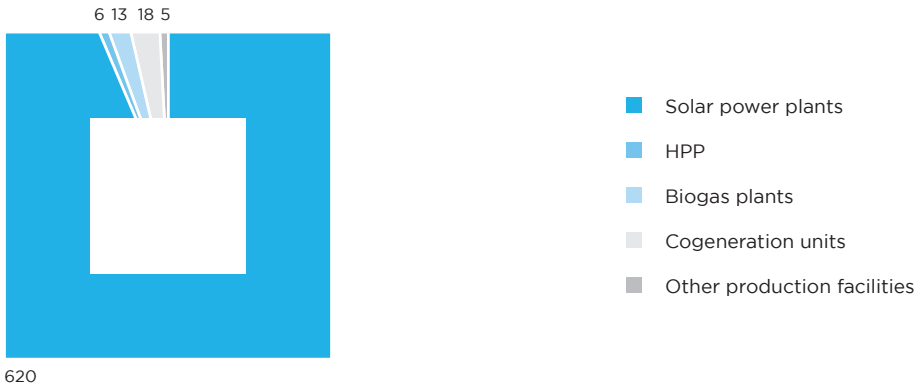


Source: Energy Agency

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

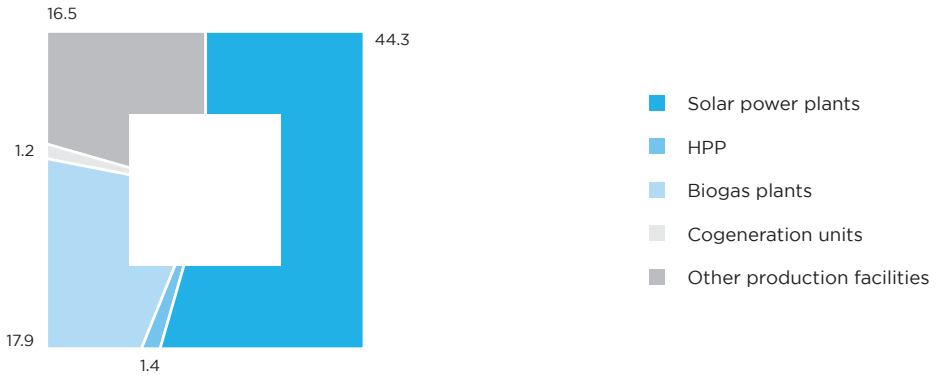
In 2011 the Energy Agency issued 662 decisions on granting support allowing the support to be obtained according to the new support scheme, most of them for solar power plants.

Figure 43: Number of issued granted support for the production facilities in 2011



Source: Energy Agency

Figure 44: Net capacity of the production facilities in MW that received decisions on granting support



Source: Energy Agency

The year 2011 was the last year in which old and new support scheme were running in parallel, as the old support scheme, in which the production facilities of the former status of qualified producers were included, at the end of 2011 cease to apply.

Table 25: Production of units included in the support scheme, and paid support

Type of production facilities	Electricity produced (GWh)	Paid support (mio EUR)
HPP	359.9	8.4
Solar power plants	50.0	17.2
Wind-powered plants	>0	>0
Biogas plants	152.7	19.4
Facilities using wood biomas	94.1	8.2
CHP facilities using fossil fuels	286.2	16.3
Others	0.3	>0
Total	**943.3**	**69.5**

Source: Borzen

3.5.2 The guarantees of origin and the RECS certificates

The Energy Agency issued guarantees of the origin of electricity for a total of 2,948 GWh and for a total of 425 GWh RECS certificates (Renewable Energy Certification System).

3.5.3 Emission allowances

The EU, as a joint signatory of the Kyoto Protocol, and the Member States committed themselves to significantly reducing greenhouse-gas emissions. Slovenia committed itself, by ratifying the Kyoto Protocol, to reduce greenhouse-gas emissions by 8% by 2012 in comparison with the base year of 1986. Emissions' trading is one of the instruments for achieving this objective.

In 2012, the Kyoto Protocol will be closed (the goals, envisaged by the protocol, have to be fulfilled by the end of 2012). The climate change policy, launched by the European Union, has been ambitious outlined and applies to all the EU Member States. Adopted objectives foresee 20–20–20 reducing the GHG emissions by 20%, increasing renewable energy sources to 20% in the final energy consumption, for the same percentage the energy efficiency should increased, and 10-percent share of biofuels as transport fuel should be reached.

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 to 20 MW.

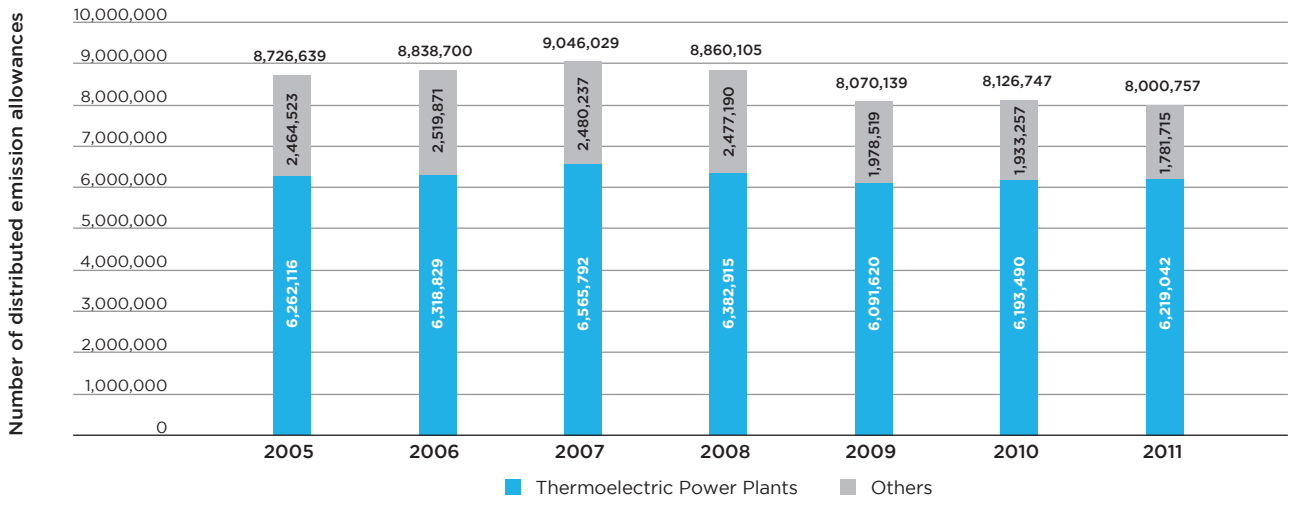
In line with the Environmental Protection Act, the National Distribution Plan for Emission Allowances for the Period 2008–2012 was prepared in Slovenia. This document sets the number of emission allowances distributed by the state free of charge. One emission allowance represents a tonne of CO_2. For 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.

The National Distribution Plan for Emission Coupons for the Period 2008–2012 (second trading period) is valid between 1 January 2008 and 31 December 2012. A total amount of emission coupons for the distribution to the facility operators for the period 2008–2012 is 41,494,687 greenhouse-gas emissions or on average 8,298,937 tonnes per year.

The National Distribution Plan for Emission Coupons for the period 2008-2012 covers 41.6% of greenhouse-gas emissions in Slovenia (according to the data for 2004). When setting the numbers of emission coupons for individual sectors, the target emissions relating to these sectors from the Operational Programme for Reducing Greenhouse-Gas Emissions were considered.

In 2011 the thermal-energy sector was handed over 6,219,042 emission allowances which represented 78% of all emission allowances distributed in Slovenia. With respect to the actual emissions and the prices for emission allowances in the market, we can conclude that the price for emission coupons did not significantly affect the price for the electricity produced in Slovenia.

Figure 45: Number of distributed emission allowances for period 2005–2011

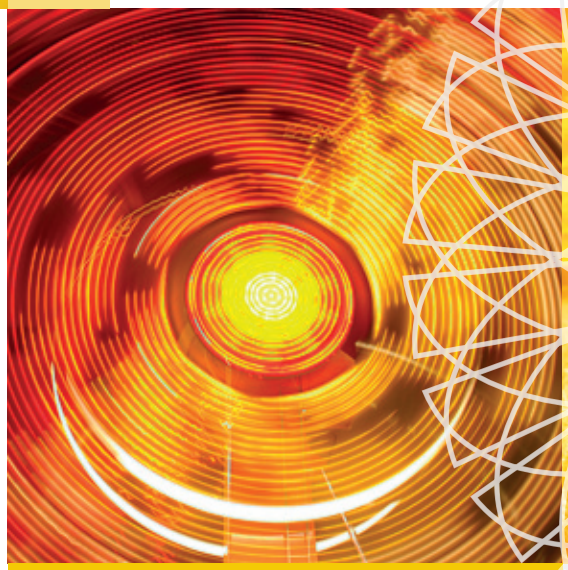


Sources: National plan for the distribution of Emission Allowances, Environmental Agency of the RS

Figure 46: Trends of the price for emission allowances from the second trading period in 2011

Source: EEX

In the first half of 2011 the price for emission allowances on EEX (purchased in 2011 for 2012) recorded a positive trend, reaching maximum values around between €18 per tonne of CO_2. In the second half of the year the price drastically decreased, so that at the end of trading the price was only €7 per tonne of CO_2.

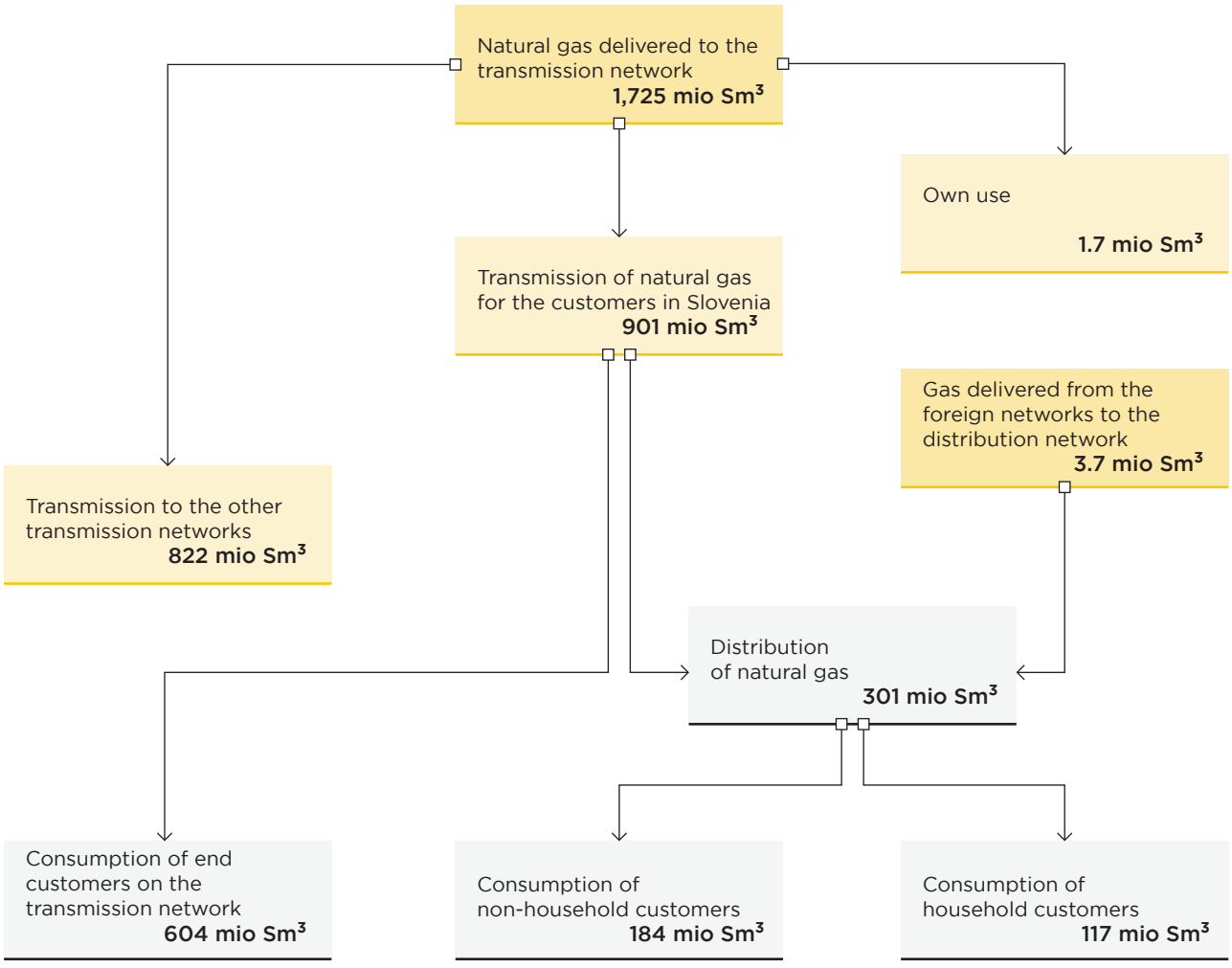


4 NATURAL GAS

In 2011 the Slovenian natural gas market was characterized by lower demand. Domestic consumption decreased by 13%, while the consumption of industrial customers connected to the transmission network fell from 730 million Sm^3 to 604 million Sm^3. The consumption of end customers on the distribution networks decreased by 19 million Sm^3 regarding the year before.

Substantial decrease in use of transmission capacities was detected not only because of the lower consumption of domestic customers, but also due to lower use of the Slovenian transmission network for transmission of natural gas to other transmission systems.

Figure 47: Basic details about the transmitted and consumed amounts of natural gas

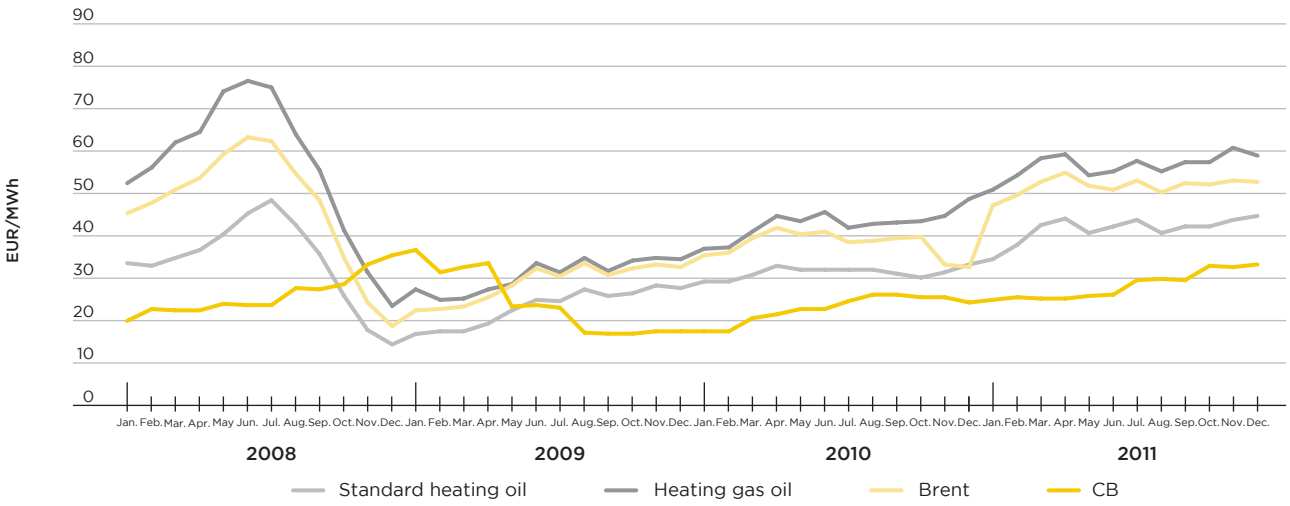


Source: Energy Agency

Smaller consumption of natural gas is the result of more favourable weather conditions, bad economic conditions for industrial customers of natural gas and higher prices of this energy product. Gas prices in 2011 exceeded the price of natural gas in 2008, when, due to high prices of oil and oil products, we faced the highest increase in prices.

In 2011 there was no interruption of supply. The year was marked by high oil and oil products prices that directly affected natural gas prices. Lower natural gas prices on world power exchanges were not reflected in prices for customers, because the main dealer and supplier buy natural gas primarily by long-term contracts.

Figure 48: Trends of the prices for oil, oil products and the basic price of natural gas



Source: Energy Agency

Figure 48 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 CB between 2008 and 2011. A noticeable relationship between these trends is obvious.

Prices of all other monitored elements except for the basic price of natural gas after a strong rise and fall in 2008 gradually increased in the next two years. In 2011 natural gas prices as well as oil products reached the highest level within the last two years.

4.1 The regulation and the regulated services

In 2011 in the natural gas market the following two activities were regulated in Slovenia:

- the operation of the natural-gas transmission system,
- the operation of the natural-gas distribution system.

The services of gas storage-facility operation, liquefied-gas terminal operation, and gas-market operation could also be organised as optional national public services; however, in 2011 there was no need for these services.

In line with legislation, in the natural gas market the Energy Agency carried out many regulatory activities. The main activities are among others setting the network charges for the gas transmission and gas distribution networks. The year 2011 was the first year of the there-years regulatory period for the gas transmission network, which was implemented the year before.

4.1.1 The regulation of the transmission and distribution activities

The activity of operating the natural-gas transmission network is carried out as a national mandatory public service. The provider of this service is the company Plinovodi, d.o.o. On 1 January 2011 the company Geoplin plinovodi, d.o.o., changed its name to Plinovodi, d.o.o. (hereinafter referred to as Plinovodi). The company Plinovodi started its work on a complete separation from the parent company Geoplin, d.o.o., and the beginning of the operation as an independent system operator.

The regulated activity of operating the natural-gas distribution system was carried out as an optional local public service. In Slovenia, 16 companies for natural-gas distribution provided this service in 2011.

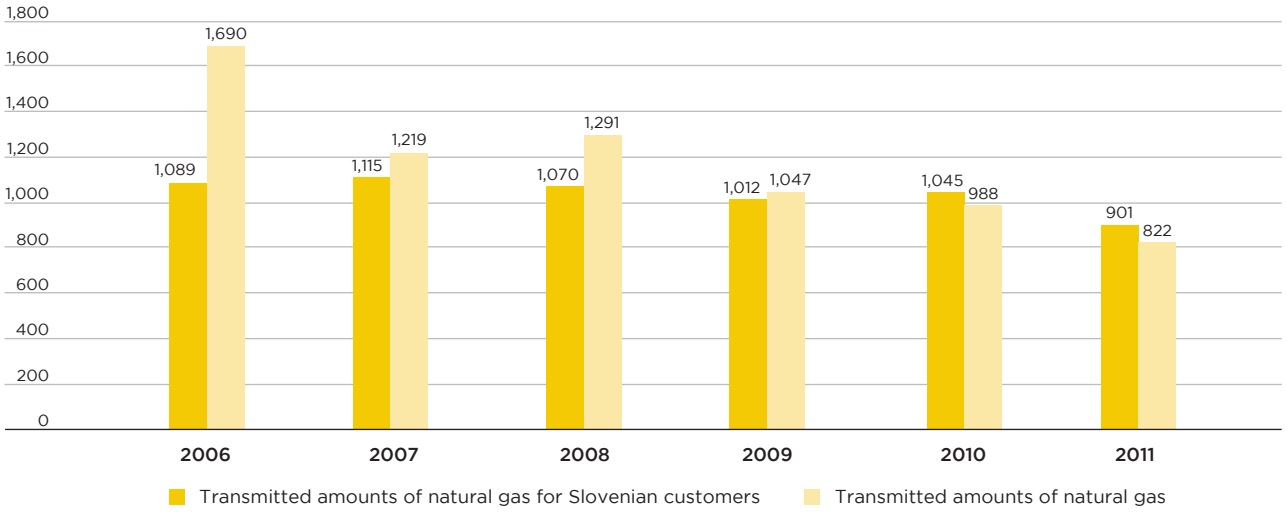
On 21 July 2011, the company Petrol merged with company RP plin and became the distribution

system operator for the 3rd narrow area of the Municipality of Šenčur. The report on the Energy Sector in Slovenia for 2011 includes the data for the company Petrol, which are the same for Petrol and RP plin.

4.1.1.1 The transmission of natural gas

Amounts of transported natural gas through the Slovenian transmission network were decreasing also in 2011. In comparison with previous year 13.8% less natural gas was transferred for the customers in Slovenia. To the transmission systems of neighbouring countries 16.8% less natural gas was transported than the year before, and even 51.4% less than in 2006.

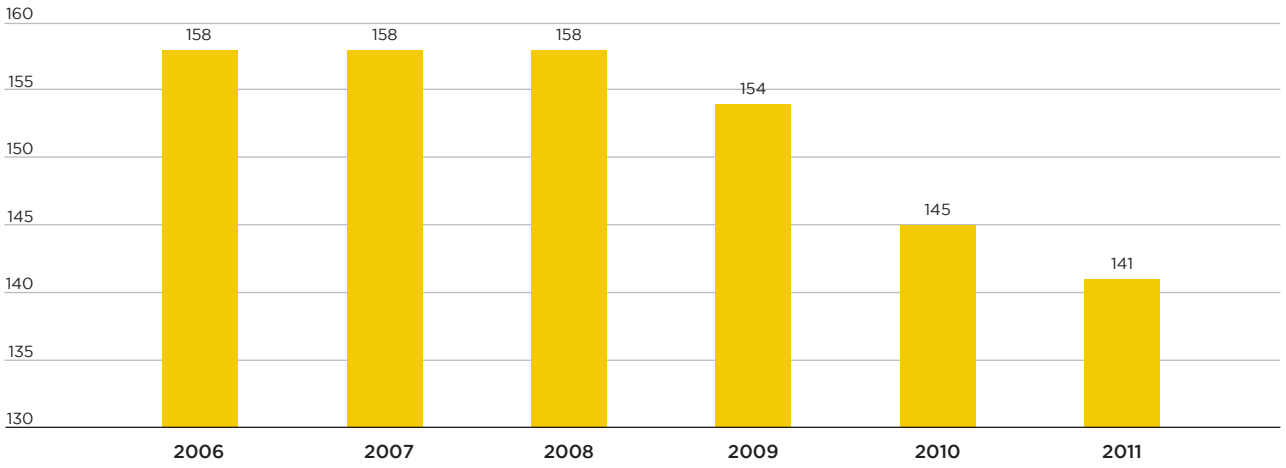
Figure 49: Transmitted amounts of natural gas



Source: Energy Agency

The transmission system operator provided transmission of natural gas through the high-pressure and medium-pressure gas networks. It operated, planned and maintained the transmission network for 16 distribution companies and 141 end customers.

Figure 50: Number of end customers on the transmission network



Source: Energy Agency

4.1.1.1.1 The gas transmission network

In 2011, 36 kilometres of pipelines with a nominal pressure of more than 16 bars were built. Total length of high pressure pipelines is so far 845 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.

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 maximum daily peak load of the network for the customers in Slovenia was 4,787,191 Sm^3. The transmission of natural gas was conducted in accordance with plans and without any disruption.

Despite lower quantities transferred, the highest daily utilizations of the network in the direction from Ceršak through M1 and M2 were during the winter around 90% and reached the highest daily utilization rate of 92.6%, which was 6.2% less than the year before. This transmission path was contractually congested, and also commercially most attractive. The highest monthly utilization of this path was 84%, at Ceršak, which was 7.3% less than in 2010.

The expected maintenance works on the transmission network caused supply interruptions totalling 37 hours. The longest time of an interruption was 12 hours and the shortest time was 7 hours. There were no unexpected interruptions. The transmission system operator provided for a stable operation of the transmission network, and a reliable supply in line with contractual obligations.

4.1.1.1.2 The business operation of the transmission system operator

The gas transmission system operator finished the financial year 2011 with a net profit of €5.1 million, which was 28.8% less than the year before. At the end of 2011 the company had 158 employees, or 10 more than in 2011. The number of employees increased mainly because of the revised internal organization in accordance with Directive 2009/73/EC.

4.1.1.1.3 The ownership of the transmission system operator

The transmission system operator has been, since the establishment on 1 January 2005, owned by Geoplin. The system operator carried out the operational and organisational actions in line with Article 31b of the EA.

4.1.1.1.4 The investments in the transmission network

In 2011 the transmission system operator allocated €75.9 million for the building and renovation of the transmission network, which was almost 75% more than the year before. The operator financed 17% of the investments by using the amortisation costs, 76%, or €58 million, was financed by the EIB loan and non-refundable funds from the EU (EEPR and TEN-E); the rest was financed from own sources.

Investment activities were mainly focused on increasing the current transmission capacities. For the first priority investments 94% of the investment funds were spent. The remaining funds were allocated for diversified supply and cross-border transmission, upgrades and smaller investments.

In 2011, the TSO completed construction of the pipeline M1/1 Ceršak-Kidričevo, and obtained the operating permit for it. For the parts of the pipeline M2/1 Rogaška Slatina-Trojane, M2/1 Trojane-Vodice and M5/R51 Vodice–TE-TOL, applications for building permits were filed. There were also an applications for 2 building permits filed, which cover 40% of the pipeline route M2/1 Rogaška Slatina–Vodice. Pipes were already bought for this pipeline. The procedures for the preparation of 18 national spatial plans began, as well as preparation with them related project documentation.

The investments in the gas transmission network are carried out on the basis of the long-term development plan prepared and updated every two years by the TSO. In December 2010 the

TSO prepared Development plan for the transmission network for the period 2011–2020, and the Ministry of the Economy issued an approval to this plan.

Table 26: Review of 1st priority activities related to the investments in the gas transmission network

Facility	Activities in 2011
Pipeline M1/1 Ceršak-Kidričevo	Completion the construction in 2011
Pipeline M2/1b Rogaška Slatina–Trojane Pipeline M2/1c Trojane Vodice	Construction in progress, completion expected in 2014
Pipeline M5 Vodice–Jarše Pipeline R51 Jarše TE-TOL	Application for building permit, completion expected in 2014
R15/1 KP Kidričevo–Talum	Preparation for the national spatial plan
R25A/1 Trojane–Hrastnik	Continuing the preparation of the national spatial plan, expected to be adopted in 2013
Extension of the compressor station Kidričevo	Without changes, the schedule of works depends on the final solution for the transmission pipeline

Sources: Plinovodi, Energy Agency

4.1.1.2 The distribution of natural gas

The distribution of natural gas, carried out as a service of a gas distribution sys-tem operator, is an optional local public service. It can be organised:

- within 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 distribution system operators 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 2011 there were 60 local communities that had this service regulated with a concession contract between the concessionaire and the local community. In 14 local communities had public companies providing this service, and in one local communities this service is carried out as an investment of public capital into the activity of private law. In 75 local communities, this service was carried out by 16 system operators of the distribution network. In community of Šenčur the activity was carried out by 2 system operators, as the local community determined 2 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 network is not yet ready for use.

In Slovenia the distribution of natural gas is carried out by the companies that have fewer than 100,000 customers connected to a distribution network. For this reason the legal unbundling of services is not required, 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 2011 Slovenia had a total of 4,305 kilometres of gas-distribution pipelines with different pressure levels, which was 3.4% more the year before. The majority, as much as 50% of these lines, operate at a pressure between 100 millibars and 4 bars, as shown below. The distribution lines, together with the corresponding facilities, are mainly owned by the system operators.

Table 27: Distribution lines and metering stations

Length of the network with pressure level between 4 and 16 bar	47 km
Length of the network with pressure level between 100 mbars and 4 bars	2,086 km
Length of the network with pressure level up to 100 mbars	2,171 km
Number of metering stations	27
Number of metering-regulation station	171

Source: Energy Agency

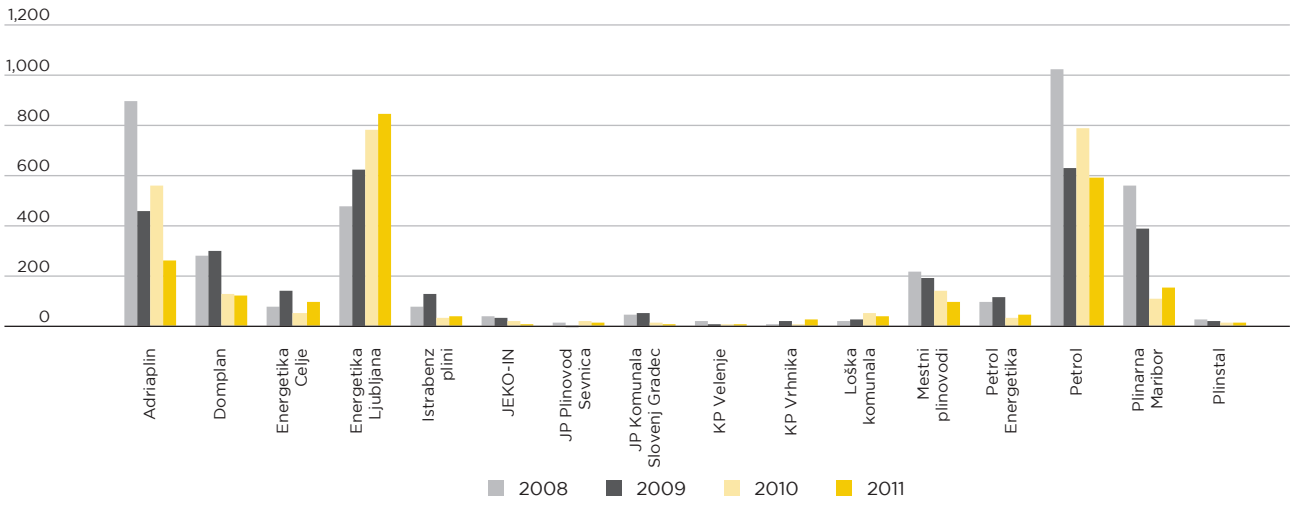
The reliable and safe operation of a gas distribution network is only possible if regular and extraordinary maintenance work is carried out. The regular maintenance work was, on average, completed in 8 hours. There was a total of 396 unplanned maintenance work, in duration of 4 hours on average, and a total of 70 supply interruptions, the total duration of which was 337 hours.

4.1.1.2.1 The customers connected to the distribution network

In 2011 a total of 130,152 gas customers, in 75 local communities, were connected to all the distribution networks, which was 1% more than the year before. There was 1.3% more of household customers, and non-household 1.9% less than the year before. The distribution system operators distributed 301 million Sm^3 of natural gas to these customers, which represents an annual decrease of 6%. Distributed quantities were lower for households, amounting to 6.9%, and 5.4% for non-households.

In 2011 the distribution system operators connected 2,318 new customers, which was almost 15% less than in 2010.

Figure 51: Numbers of new customers on the distribution networks for 2008–2011



Source: Energy Agency

On average, the distribution system operators issue a connection approval in 27 days after the receipt of an application. At one system operator, the procedure, on average, lasted 60 days, which was the longest period for issuing the connection approvals. To make a physical connection to a network took 9 days on average.

In 2011 the use-of-network prices charged to the customers connected to a gas distribution network were regulated. The household customers connected to the distribution networks use natural gas mainly for cooking, preparing hot water and heating. As much as 90% of customers use up to 4,500 Sm^3 of natural gas per year; however, these customers consume only 31% of the total consumption of the customers connected to a distribution network.

4.1.1.2.2 The business operations of the distribution system operators

In 2011, 11 distribution companies had a total net profit of €5 million; the remaining 5 companies had a total net loss amounting to €0.91 million.

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

On 31 December 2011 there were 11 companies for gas distribution owned by one or more local communities and by domestic or foreign legal entities. Four system operators are without a majority owner, as they are owned by several individuals.

Table 28: 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

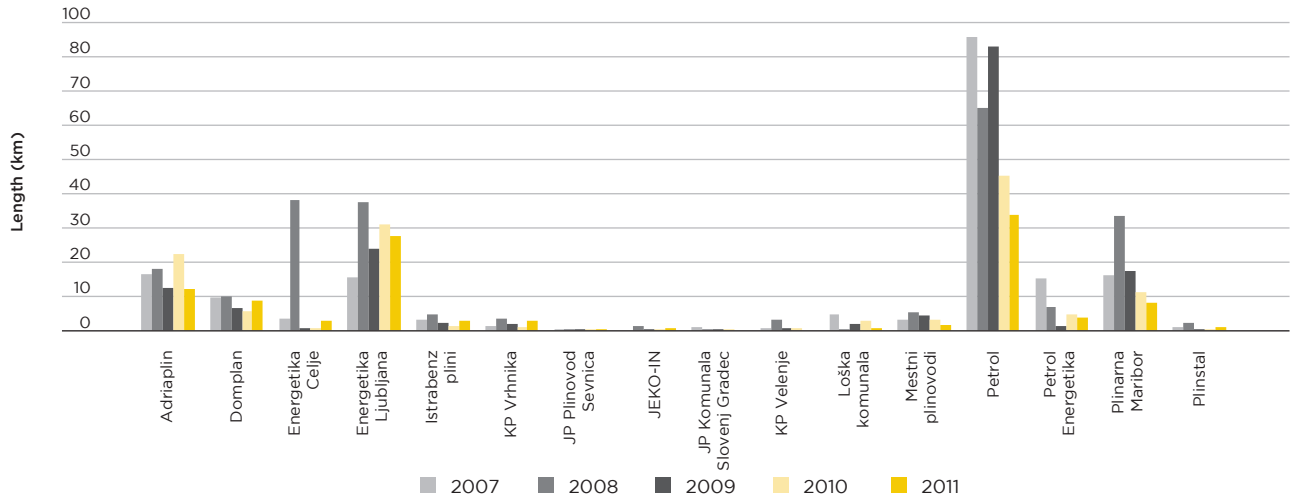
Distribution networks were owned by 6 system operators. The remaining 10 system operators in 2011 were not the owners of the distribution networks. Except in 2 cases, related to parts of the distribution networks, system operators settled the contracts with the owners of the networks properly.

4.1.1.2.4 The investments in the distribution networks

The programmes of investments in the distribution networks are, in most cases, harmonised between the system operators and the local authorities, and most often the schedule of investments is already determined in the concession contract or another act of a local community.

A total of 141 kilometres of the new gas pipelines of the distribution networks were constructed, which was 2% more than in 2011.

Figure 52: Length of new distribution networks in 2007–2011



Source: Energy Agency

4.1.1.3 The network charges for the gas transmission and distribution networks

The price for the use of networks consists of the network charge and the supple-ment intended for the operation of the Energy Agency. The network charge is used for financing the costs of the system operators 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, while the supplement is set by the Government.

4.1.1.3.1 The network charge for the transmission network

The foundations for setting the network charge are provided by the Act Determining the Meth-odology 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 Net-work Charge for the Gas Transmission Network. The methodologies were adopted by the Energy Agency after obtaining approval from the government.

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 method of price capping is used when setting the network charge.

The network charge for the transmission network is, for individual customer groups, unified for the whole territory of Slovenia, as the postage-stamp method is used for charging for the net-work charge. The charge depends on the leased contractual transmission capacity, the trans-ported quantities of natural gas, the type of metering device used, and compliance with other parameters of the methodology for charging the network charge.

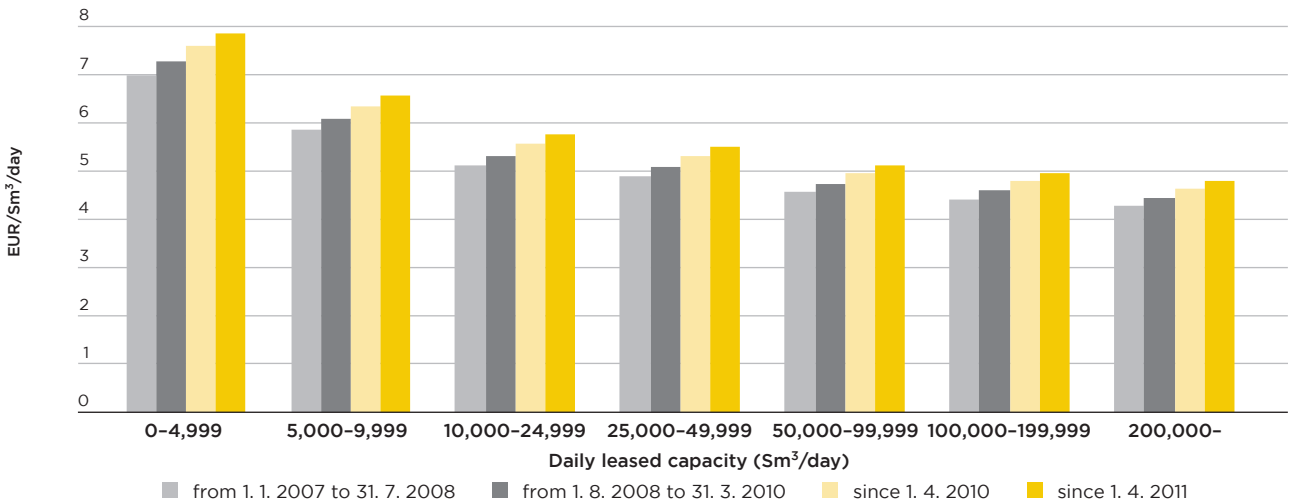
The network charge for a three-year period is set by the gas transmission system operator by the public authority with the Act Setting the Network Charge for the Gas Transmission Network. The system operator publishes and implements this act in the Official Gazette of the Republic in Slovenia after obtaining approval from the Energy Agency.

The network charge is charged by the system operator in a way that the following elements are considered:

- the amount of the transmission of natural gas,
- the amount of a customer's own use of natural gas,
- the amount of measurements performed.

Prices for the gas transmission by customer group from 2006-2010 are shown by the diagram in Figure 53.

Figure 53: Trends of the prices for the gas transmission by customer group for 2007–2011



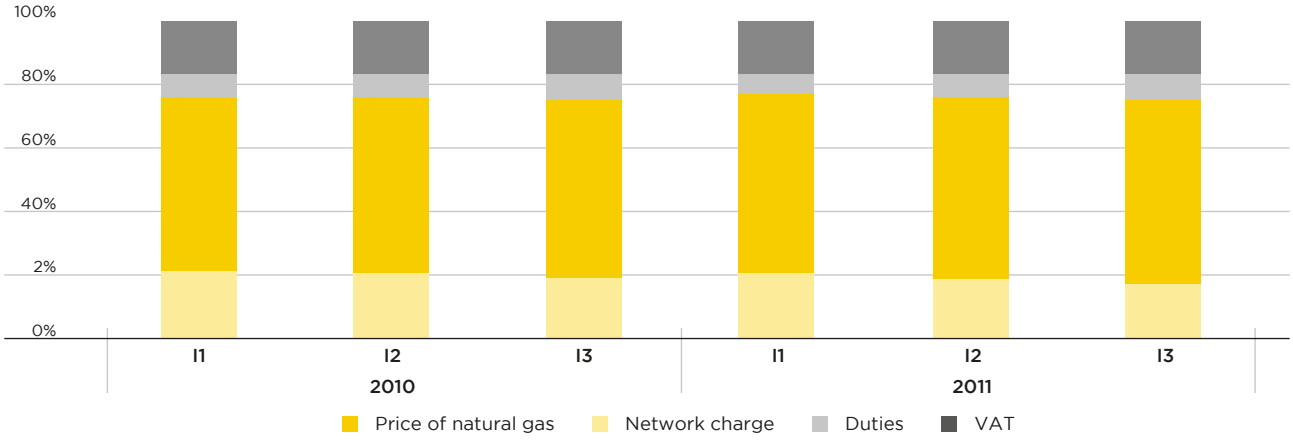
Source: Energy Agency

The prices for the transmission of natural gas across the transmission network were different, depending on the leased daily capacity at the annual level (Sm^3/day/year). On 1 January 2011, after Energy Agency gave approval to these prices, the transmission system operator of natural gas changed the prices for gas transmission, applicable from 1 April 2010. The prices reflect the eligible costs of the system operator.

On the bills for the customers connected to the gas transmission network, the network charge is disclosed separately from the other price items.

The final price of natural gas for industrial costumers 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 accounted from 6 to 8% of the final price of gas. The price of gas as a commodity for industrial customers represented 56 to 58% of the final price, and the network charge 17 to 21% of the final price.

Figure 54: Structure of the final price of natural gas in 2010 and 2011 for industrial customers



Source: Energy Agency

4.1.1.3.2 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.

The price capping method is used when setting the network charge. The network charges for the distribution networks are unified for individual geographical areas. This means that 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. The distribution system operators may join the customer groups and propose a unified price for several customer groups.

Distribution system operator determines the gas prices for a period of one year by the Act Setting the Network Charge for the Gas Distribution Network relating to an individual geographical area; act is published in the Official Gazette of the Republic of Slovenia, after prior consent of the Energy Agency.

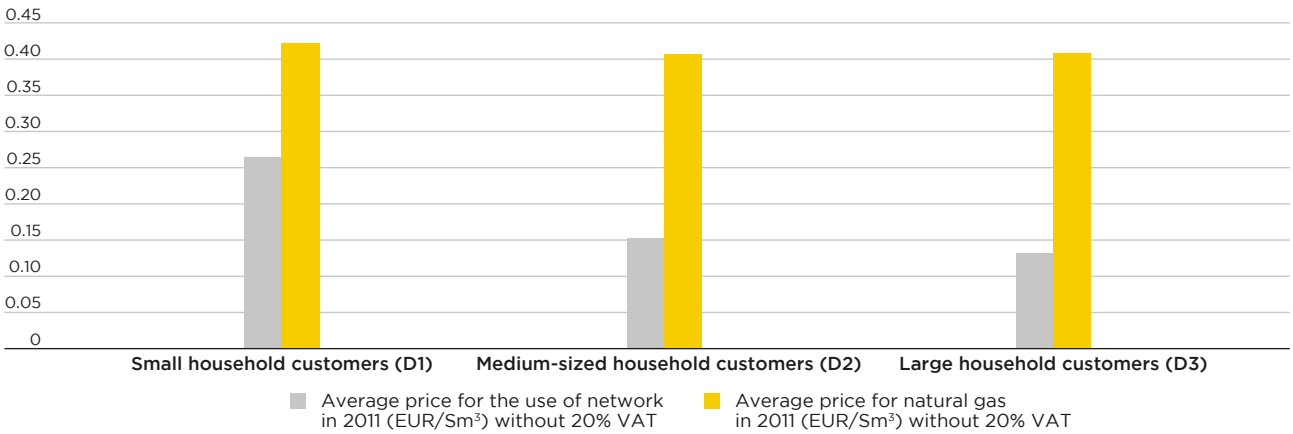
Distribution system operator charges:

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

In 2011 all gas distribution system operators provided for a separate disclosure of the use-of-network price on the bills issued to their customers.

Figure 55 shows different average prices for the use of the network and average prices for natural gas in 2011 for 4 largest suppliers, which are also the system operators of the distribution networks, to the household customers.

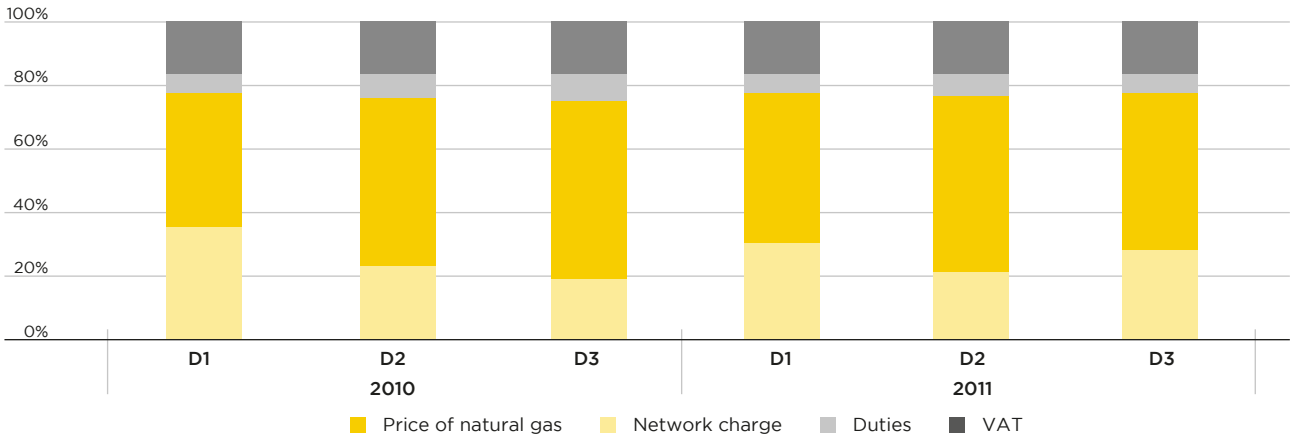
Figure 55: Average prices for the use of the network and average prices of natural gas in 2011 for household customers



Source: Energy Agency

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, supplement for energy efficiency improvement. Taxes were accounting around 5.5% of the final price. For the household customer the price of gas as commodity represents from 47 to 55% of the final price, and the use-of-network price from 28 to 31% of the final price.

Figure 56: Structure of the final price of gas in 2010 and 2011 for household customers



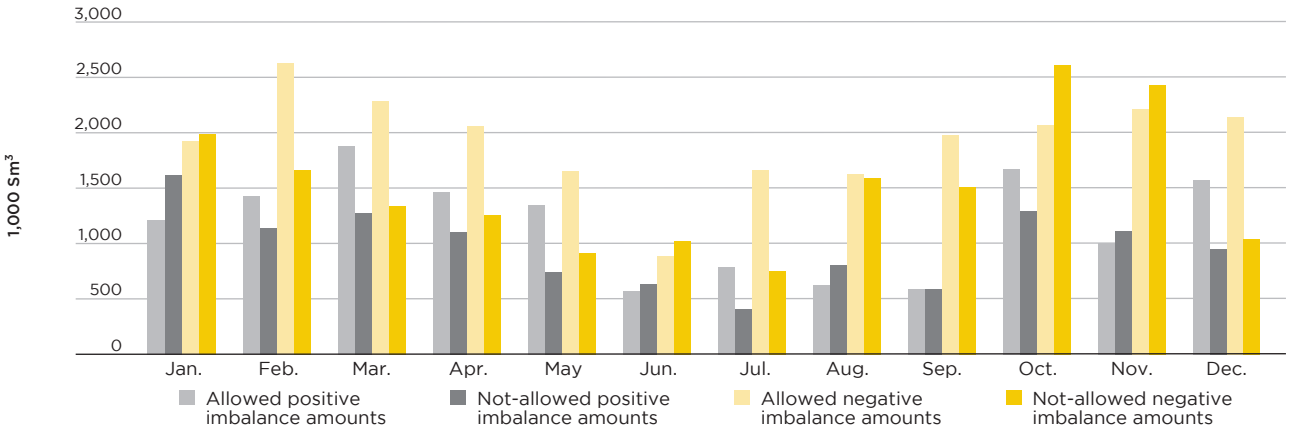
Source: Energy Agency

4.1.1.4 The balancing

In 2011 Geoplin and Adriaplin, two balance responsible parties carried out balancing of the imbalance amounts for the members of their groups. The transmission system operator charged for imbalance amounts and took care for balance of the system by buying and selling natural gas.

For customers the amounts of gas required for balancing imbalance amounts on daily basis amounted to 2.9%, and for balancing the transmission network 4.6% of the Slovenian annual gas consumption in 2011, 21% more than the year before.

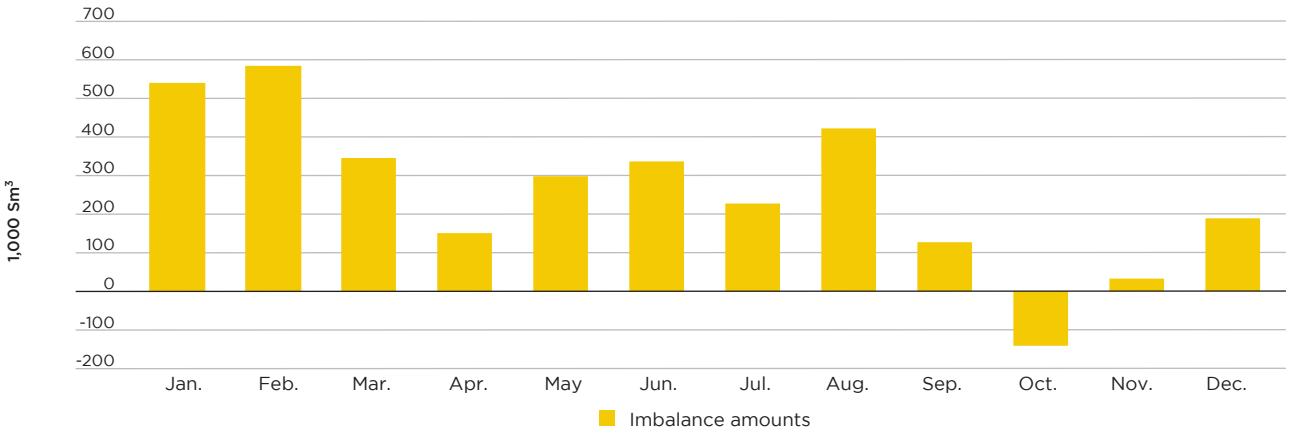
Figure 57: Amounts of natural gas required for balancing imbalance amounts



Source: Energy Agency

On the basis of the system of equations the accumulate difference in amount of 3.4 million Sm^3 was established, representing 0.37% of the transferred quantities of natural gas in Slovenia.

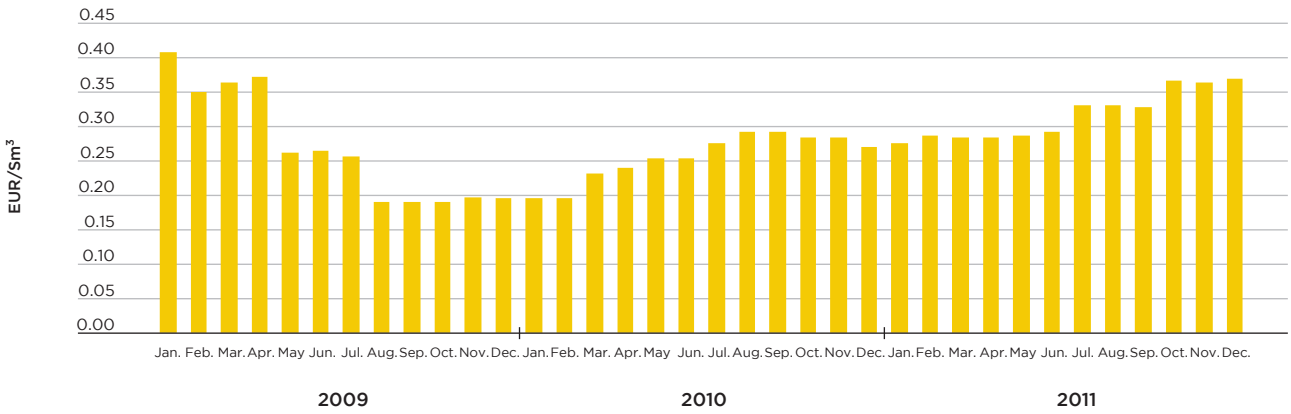
Figure 58: Amounts of natural gas of positive and negative imbalance amounts



Source: Energy Agency

The grounds for settlement of imbalances, the differences and for own use is the basic price CB (Figure 59), which was in 2011 on average 0.3151 EUR/Sm^3, almost 24% more than the year before.

Figure 59: Basic price (CB) movements from 2009 to 2011



Source: Energy Agency

4.1.1.5 The secondary market of transmission capacities

In the secondary market of transmission capacities eligible users can lease transmission capacities from those users of transmission network which do not need their leased capacities and thus offer them for sublease.

The table below shows the trading of spare capacities in the secondary market in 2011.

Table 29: Trading of spare capacities in the secondary market 2011

Number of suppliers of spare capacities	14
Number of bids	24
Total amount of spare capacities in Sm^3/day	628,853
Number of enquirers for spare capacities	10
Number of enquires	18
Total amount of enquired capacities in Sm3/day	602,553
Number of suppliers who sold spare capacities	9
Number of enquirers who leased spare capacities	10
Number of contract for sublease	18
Total amount of subleased capacities in v Sm3/day	602,553
Number of refused sublease	**2**

Sources: Energy Agency, Plinovodi

In comparison with 2010, the number of contracts for sublease nearly doubled, the total amount of subleased capacities was five times higher, indicating a trend of development of secondary market of transmission capacities.

4.1.2 The unbundling of services

In Slovenia the mandatory national public service of the gas transmission-system operation is carried out by one provider, while the optional local public service of the gas distribution-system operation is carried out by 16 providers.

The gas transmission system operator carried out its service, and it is 100-percent owned by a domestic legal entity supplying natural gas to Slovenia. The gas transmission system operator owns the assets required for the provision of this service. In 2011 we did not notice any special effects of legal unbundling on the investments and supply reliability.

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 28 in Section 4.2.1.2.3 shows the ownership structure of the gas distribution system operators. In 2010 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.

On 2 November 2011 the Energy Agency received an application from the transmission system operator to start the certification process of the Independent Transmission Operator (ITO). On the basis of the application received, the Energy Agency began with the prenotification procedure,

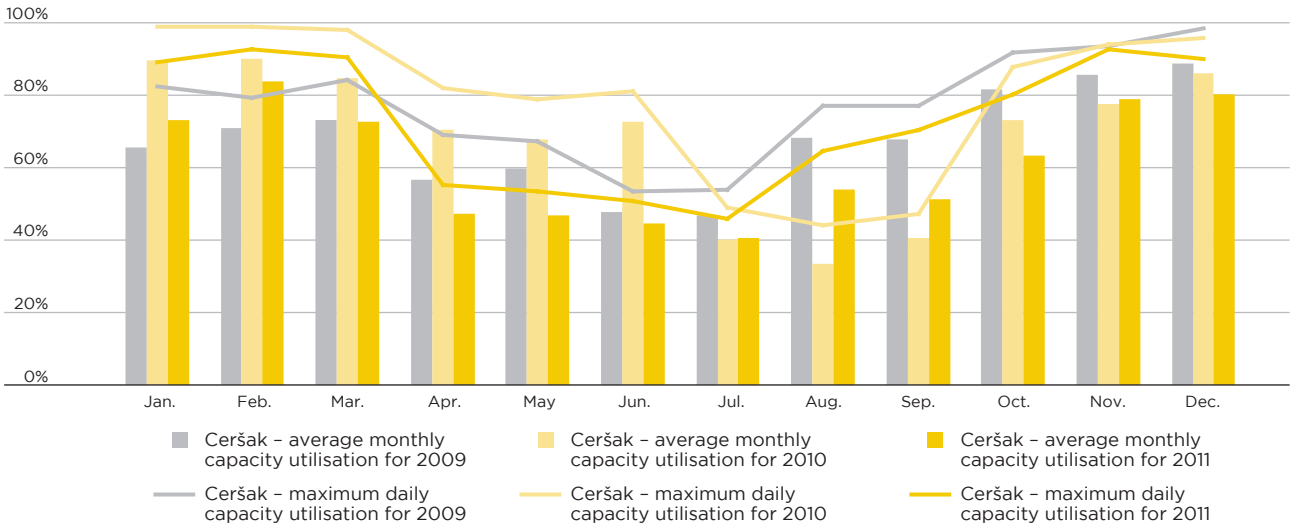
4.1.3 The allocation of cross-border transmission capacities

4.1.3.1 The cross-border transmission capacities of the network

The cross-border transmission capacities are used for the provision of a reliable supply with natural gas in Slovenia and for the transit of natural gas. In 2011 the utilisation of the all 3 metering-regulation station (MRS) decreased in comparison with previous year. In the MRS Ceršak the utilisation decreased by almost 7% compared with the previous year, while in metering-regulation station in Šempeter and Rogatec the extent of the decrease was higher, reaching 13.6% and 9.8%. Decrease in both stations was noticed at the end of heating season 2010/2011, and increase again at the beginning of heating season 2011/2012.

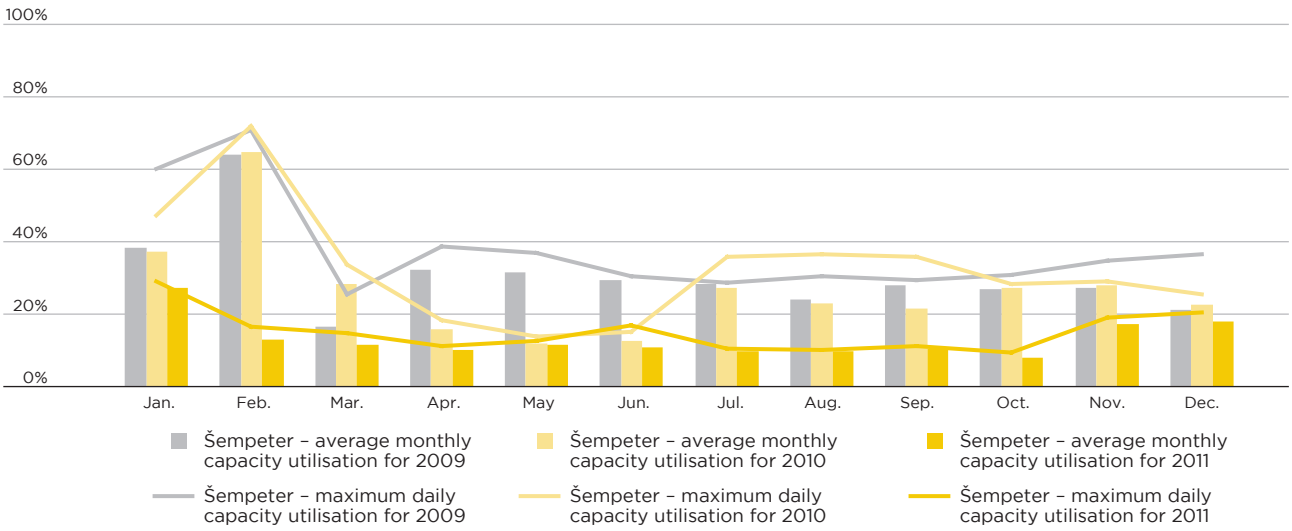
In 2011 the average annual utilisation of the capacity of the most important border-entry metering-regulation station, Ceršak, was 61.5%, the average monthly utilisation of the entry-exit station Šempeter was 13.1%, and Rogatec amounted to 44.1%. Figures 60 to 62 show the highest daily utilisation and the average monthly utilisation of individual border metering-regulation stations.

Figure 60: Maximum daily and average monthly capacity utilisation of the metering-regulation station Ceršak



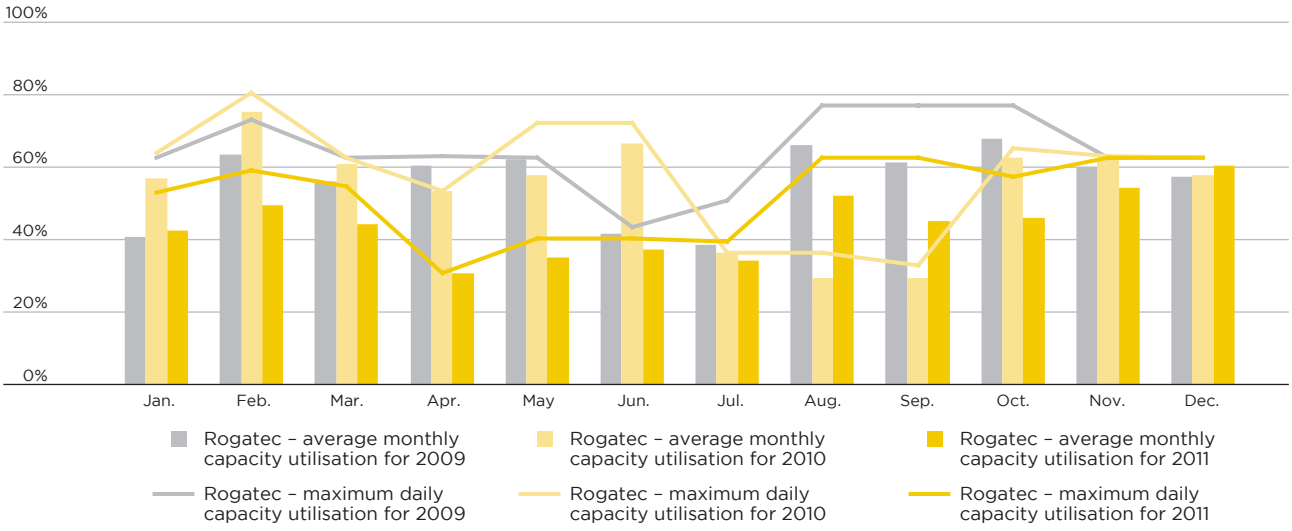
Sources: Plinovodi, Energy Agency

Figure 61: Maximum daily and average monthly capacity utilisation of the metering-regulation station Šempeter



Sources: Plinovodi , Energy Agency

Figure 62: Maximum daily and average monthly capacity utilisation of the metering-regulation station Rogatec



Sources: Plinovodi, Energy Agency

4.1.3.2 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 transmission system operator 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 transmission system operator 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 customers.

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

- the online model that can, on the basis of current conditions in the gas network, forecast the conditions for the following 48 hours;
- 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.

4.1.3.3 The allocation of the transmission capacities of the network

The gas transmission system operator allocates the transmission capacities in line with the regulations regulating the general conditions for the supply and consumption of natural gas from the transmission network. With respect to managing transmission capacities, the system operator also started to use the Rules for the Procedure of Implementing Regulation (EC) No 1775/2005 on the conditions for access to the natural-gas transmission networks.

Transmission capacities were allocated to all the interested users of the transmission network. If the transmission system operator had received requests for the capacities in an amount larger than allowed by the technical network restrictions, it would have used the allocating mechanism based on the pro-rata principle.

In 2011 the transmission system operator had 156 uninterruptible access contracts with the network users. The users of the gas transmission network used the transmission capacities for the supply of natural gas to Slovenia, and for the transit between two transmission networks.

Transmission capacities were allocated in line with contracts for long-term net-work access.

In the primary market of the transmission capacities, 4 contracts for short-term network access were concluded between the system operator and the network users.

4.1.4 The congestion-management mechanisms

Technical characteristics and configuration of the transmission system dictate its technical capacity, or the maximum firm capacity that the TSO can provide for the network users, taking into account the whole system and its operational requirements. If demand for capacity exceeds the technical capacity, we are talking about the contractual congestion. In addition to contractual congestion, physical congestion occurs when the actual supply requires all of the technical network's capacities.

In the transmission network the long-standing problem of contractual congestion (demand for capacity exceeds the technical capacity) still exists, while the physical congestion of the highest utilised direction in 2011 compared to prior years slightly decreased. The transmission network was less used due to economic crisis not only in Slovenia but also in the EU. The most congested part of the Slovenian transmission network was still in the direction of Ceršak – pipelines M1 and M2 – where the supply of natural gas from the east (Russian and Austrian supply sources) is carried out, and in M1 also operates the compressor station Kidričevo.

Long-term leased transmissions capacities in the MRS Ceršak meet currently available technical capacity. The highest daily utilisation of capacity during of the heating season in February was almost 92.6%, and the average monthly utilisation of capacity in February was 83.8% of its technical transmission capacity. Maximum congestion relief of the transmission system occurs during the heating seasons, when the congestion of the most used direction reaches 47.6% of its technical transmission capacity.

High capacity utilisation in the direction Ceršak-Rogatec in winter continues to show the importance of this direction for meeting growing peak consumption of wide domestic consumption and consumption for electricity generation, which is still a bottleneck. The transmission system

operator will, in 2012, with the activation of additional pipeline, which is a part of a new investment programme, eliminated the described bottleneck.

To manage contractual congestion, two mechanisms, in addition to the existing ones, are available in Slovenia. The first mechanism is the primary market for short-term interruptible capacities. In the case of a contractual congestion, this mechanism allows the selling of the leased and unused transmission capacities for short periods. The other mechanism is the secondary market allowing the users of the gas transmission network to trade, among themselves, with small amounts of leased and unused transmission capacities.

4.2 The market-based activities and competition

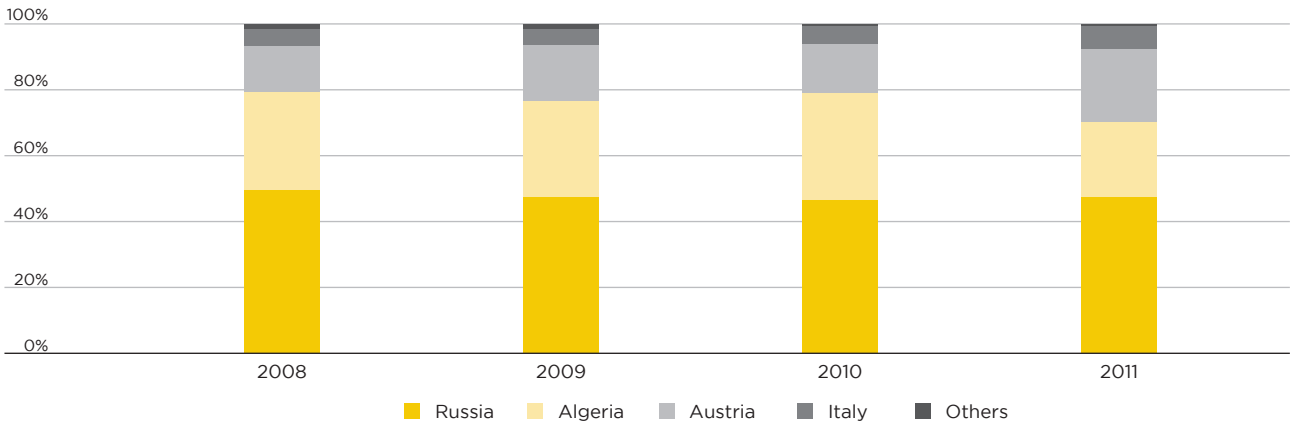
The liberalization of the gas markets in Slovenia and other EU members allows customers to choose their suppliers, who operate in a competitive market, and suppliers to operate on the market under fully competitive condition.

In 2011 there were 20 suppliers selling natural gas to 130,152 end customers. The number of switches decreased, and consequently the proportion of customers who switched supplier, is still below 0.1%.

4.2.1 The sources of natural gas and the wholesale market

Slovenia does not have its own natural gas resources, and it is totally dependent on foreign sources. In 2011 most of it, as much as 48% was supplied from Russia, 23% from Algeria, 22% from Austria, 7% from Italy and rest from other countries. In comparison with previous year, the import from Russia remained unchanged, while import from Algeria declined due to increasing import from Austria.

Figure 63: Sources of natural gas



Source: Companies' data

Demand for natural gas decreased, thus the suppliers for the end customers imported 905 million Sm^3 of natural gas. That was 15% less than the year before. Table 30 shows the amounts of natural gas for the past three years. Geoplin also imported quantities for its own use and for balancing the transmission network; these quantities are not part of the numbers below.

Table 30: Imported gas for domestic consumption between 2009 and 2011 in Sm^3

Supplier	2009	2010	2011
Geoplin	967,668,943	982,384,614	829,828,077
Adriaplin	46,854,189	56,982,045	71,605,418
Petrol	3,371,134	3,959,838	3,702,201
Total	**1,017,894,266**	**1,043,326,497**	**905,135,696**

Sources: Companies' data, Energy Agency

The largest importer, trader and supplier of natural gas in 2011 was still Geoplin, Its share of the total imports decreased by almost 2% according to 2010, and was 92.8%. The share of the other two suppliers, Adriaplin and Petrol was less than 8%. Adriaplin began to operate in the Slovenian market on 1 January 2008. Petrol imported natural gas for its customers from Italy and Croatia through the two distribution networks, which are not connected to the gas transmission network.

After dramatic increase of imports of natural gas on the basis of short-term contracts in 2009 and 2010, when the percentage increased for 11%, slight decrease followed. In 2011 almost 2% less natural gas was imported on the basis of short-term contracts in comparison with the previous year.

The participants of the wholesale market are the traders who supply natural gas to other suppliers. Five suppliers of natural gas operated in the Slovenian wholesale market.

The largest share in the wholesale market had Geoplin, accounting around 72.3%. Table below shows the market shares and the HHIs for the wholesale market, which was 5,926.

Table 31: Market shares and the HHIs relating to the wholesale gas market

Wholesale market	Share
Geoplin	72.27%
Petrol Energetika	26.50%
Enos	0.78%
Geocom	0.18%
Istrabenz plini	0.14%
Adriaplin	0.13%
Total	**100.0%**
HHI of the wholesale market	**5,926**

Sources: Companies' data, Energy Agency

The conditions in the market did not change significantly in comparison with the previous year. Because Geoplin increased its market share for 2%, the HHI increased as well.

Almost 320 million Sm^3 of natural gas was sold in the market, almost 30 million Sm^3 less then year before. On the other hand, the percentage of gas, sold on the basis of short-term contracts, increased. Last year, there was one percent of gas sold on the basis of short-term contracts, and in 2011 almost 4%.

4.2.2 The supply and the retail market

The participants in the Slovenian retail market are the suppliers and end customers of natural gas. Geoplin remained the company with the biggest market share, 62%, but it is worth mentioned that its market share reduced by almost 7% in comparison with previous year. Consequently, the HHI declined throughout the retail market, which shows positive trends in this market.

The retail market in Slovenia consists of the end customers connected to the gas transmission network, and the end customers connected to the gas distribution networks. HHI for the whole retail market amounts to 4,035.

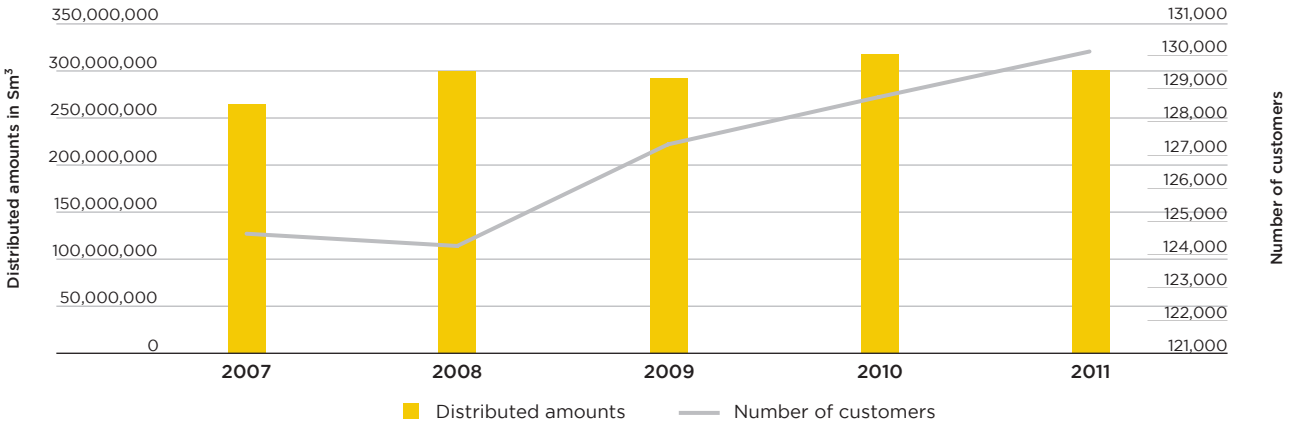
Table 32 shows the entire retail market with market shares.

Table 32: Market shares and the HHIs relating to the entire retail market

Company	Share
Geoplin	62.2%
Energetika Ljubljana	7.82%
Adriaplin	7.27%
Plinarna Maribor	5.61%
Petrol	5.47%
Petrol Energetika	3.23%
Energetika Celje	2.57%
Others	5.82%
Total	**100,00%**
HHI of the retail market	**4,035**

Source: Companies' data, Energy Agency

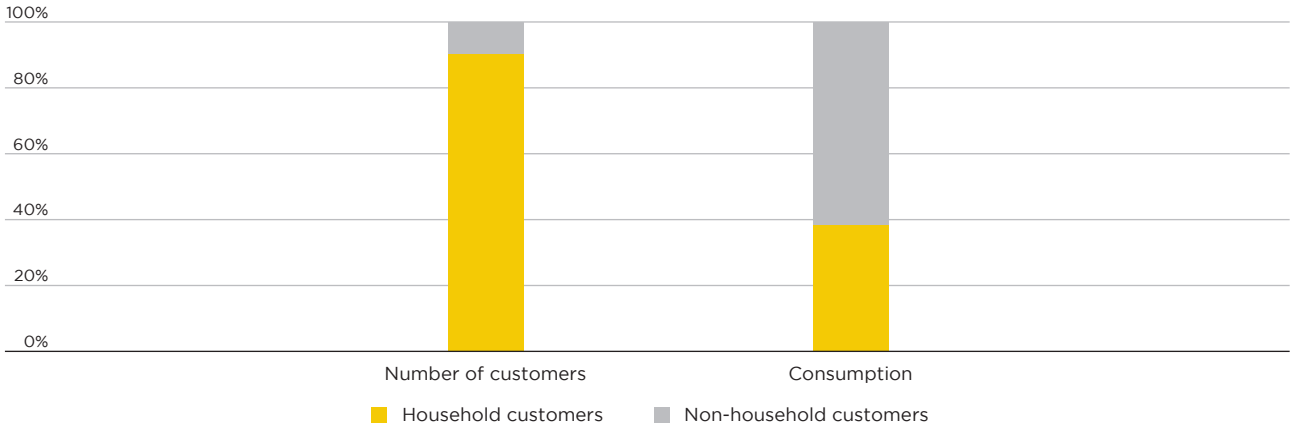
Figure 64: Distributed amounts and the number of customers on the distribution network



Sources: Companies' data

With respect to the total number of customers, the share of household customers remains the same, which is 90%, and has remained stable over the last few years as well as their consumption, which presents 40% of total consumption of the costumers connected to the distribution networks (Figure 65).

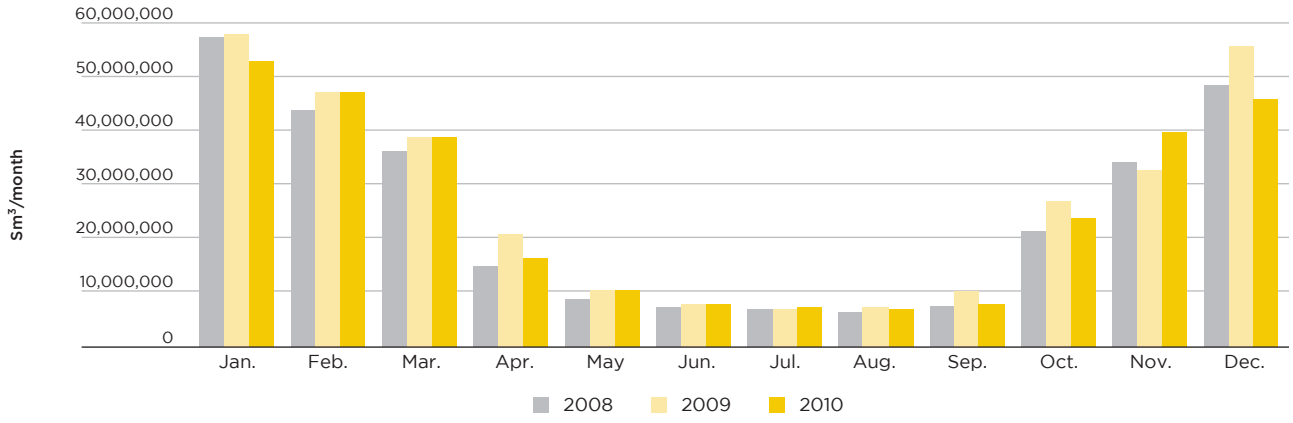
Figure 65: Ratio between the number of customers connected to the distribution network and their consumption



Sources: Companies' data, Energy Agency

Trends of gas consumption by months are shown below.

Figure 66: Gas consumption by months in 2009–2011



Sources: Companies' data, Energy Agency

The activities of the market for natural gas are reflected also by the number of customers that switched supplier. In comparison with 2010, when 188 out of 128,769 customers connected to the gas distribution networks switched supplier, in 2011 there were only 97 switches (a total number of customers was 130,152). These numbers shows that here were fewer activities in the whole natural gas market.

The expected annual consumption of the customers that changed supplier was in 2010 6.8 million Sm^3, and in 2011 much less, namely 5.3 million Sm^3. The share of customers that switched supplier is only 0.07%, and the share of their consumption 1.75%.

4.2.2.1 The prices for natural gas in Slovenia

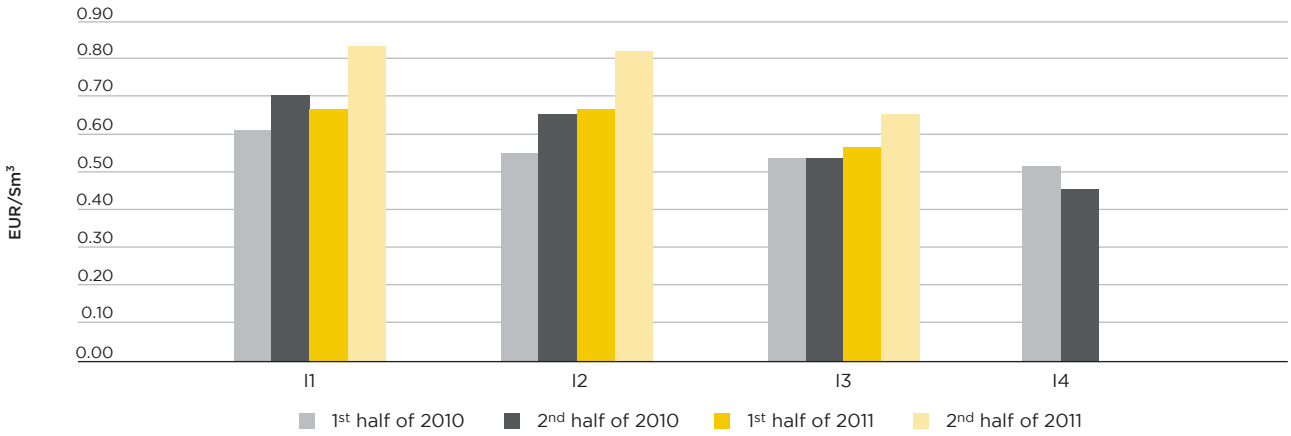
The final price for natural gas for the customers connected to the transmission network consists of the regulated fraction for the use-of-network price, the market-based fraction for natural gas, and taxes.

By selecting their suppliers, the customers can influence one fraction of the final price, i.e., the price for natural gas that the suppliers set on the market-based principle. The remaining fractions of the final price for natural gas are regulated, being set by the Energy Agency (the network charge) and the Government (the supplements to the network charge).

The year 2011 was characterised by continued increase in the gas prices for all standard groups of customers in Slovenia.

Industrial customers of natural gas have been classified in following standard customer groups, having been defined with respect to the interval of an annual consumption.

Figure 67: Final gas prices for industrial customers including VAT and other taxes

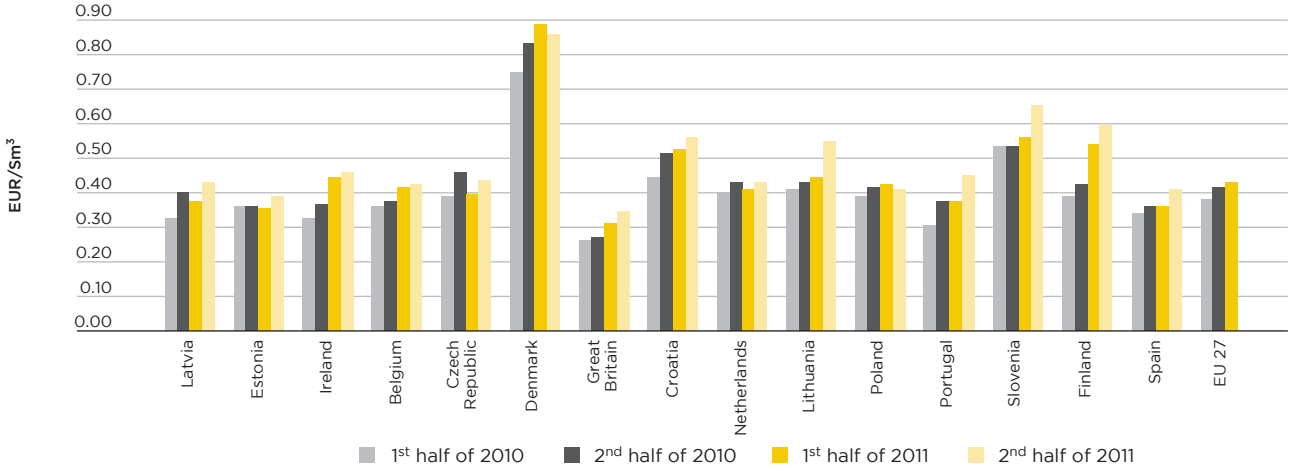


Sources: Statistical Office of the Republic of Slovenia, Energy Agency

Figure 67 shows the trends of the gas prices by groups of the industrial customers of natural gas for the period starting at the beginning of 2010 and finishing at the end of 2011. Comparing with previous year, an increase in the prices for all groups is noted.

In 2011 the prices of natural gas compared to the second half of 2010 did not change the same for all customer groups, since the highest price increase was seen for customers with smaller annual consumption.

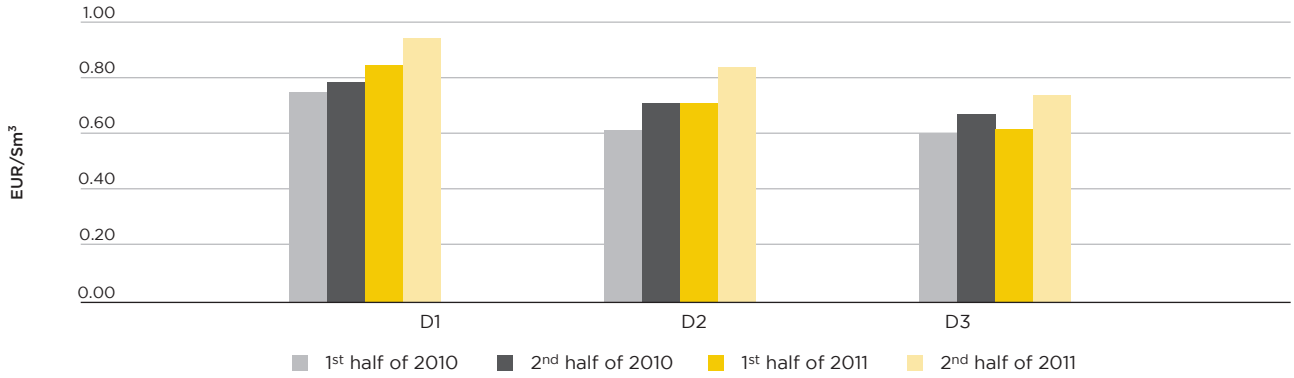
Figure 68: Final gas prices including VAT and other taxes for typical industrial customers I3 in Slovenia and some other EU countries



Sources: Eurostat, Energy Agency

The above figure shows the final gas prices in Slovenia and some other EU countries for industrial customers I3 with an annual consumption between 264,349 and 2,643,489 Sm^3 of gas in the second part of 2010 and in 2011. According to Eurostat at the time of preparation of this report the information for the second part of 2011 was not available. The average gas price in EU countries was 0.42 EUR/Sm^3 of gas, and in Slovenia was higher, 0.65 EUR/Sm^3. The highest average price had Denmark – 0.86 EUR/Sm^3 of gas.

Figure 69: Final gas prices for typical household customers including VAT and other taxes in Slovenia from 2010

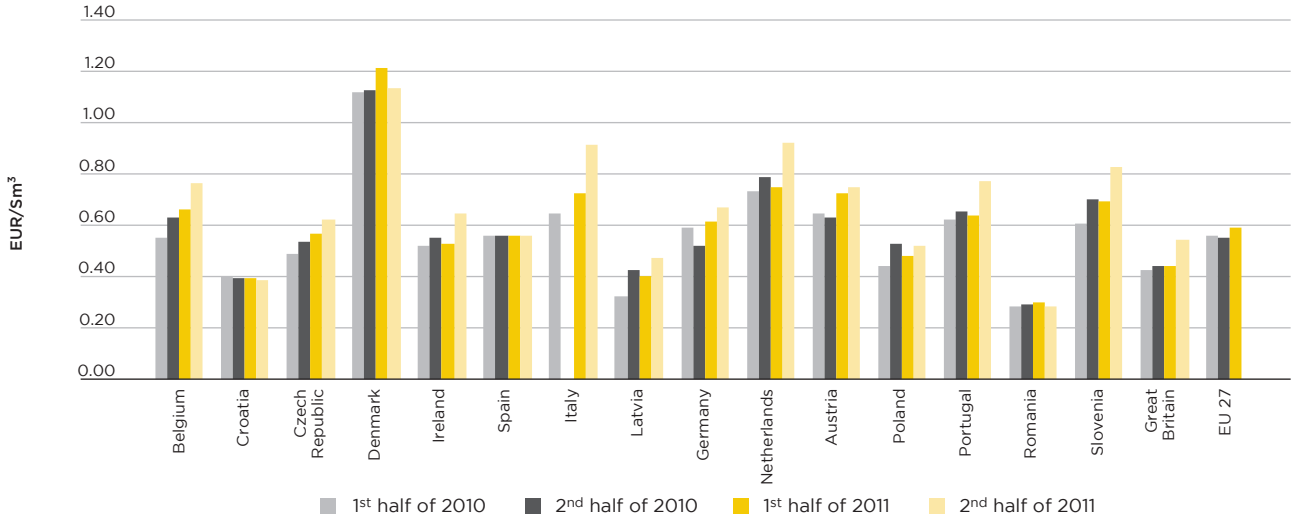


Source: Statistical Office of the Republic of Slovenia SURS, Energy Agency

Standard costumers groups of household customers are: D1 consumption to 529 Sm^3; D2 consumption from 529 Sm^3 to 5,287 Sm^3; D3 consumption more than 5,287 Sm^3.

In the beginning of February 2010 suppliers started to charge supplement for increase efficiency, which amounts to 0.005 euro for each Sm^3 of gas consumed. As seen in Figure 70, the prices were increasing constantly from the first half of 2010 till the end of 2011. The highest price for cubic meter was in the customer group with the lowest consumption. Higher prices for natural gas in 2011 are the consequence of rising prices of oil and oil products in the global market.

Figure 70: Final gas prices including VAT and other taxes for typical household customers D2 in Slovenia and in some other EU countries

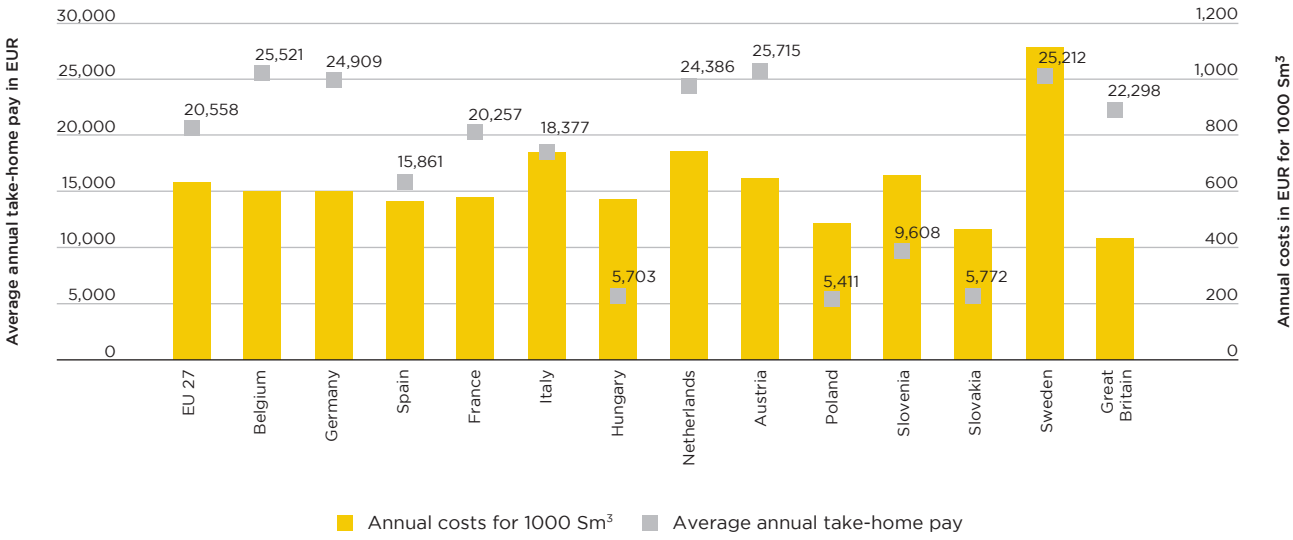


Sources: Eurostat and Energy Agency

Gas prices for typical household customers D2 with an annual consumption between 529 Sm^3 and 5287 Sm^3 were increasing in Slovenia and some EU countries as shown in Figure 70. The average price of gas during this period was 0.59 EUR/Sm^3 of gas, similar to the previous year. The highest price of gas is in Denmark, and the lowest in Romania. Slovenia is among the countries with the highest gas prices.

An interesting comparison of gas prices among countries as the ratio between average annual salary and costs for natural gas for the consumption of 1,000 Sm^3 is shown below.

Figure 71: Average annual costs for natural gas and average annual take-home pay of household customer



Sources: Eurostat, Energy Agency

Annual costs for gas were for the average household customer in Slovenia much higher than in the EU and in some neighbouring countries (e.g. Austria).

4.2.3 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 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.

In 2011 The Competition Protection Office did not adopted any decision, or took action against any of participants in the market for natural gas.

4.2.4 The deciding on disputes and appeals

In 2011 the Energy Agency received one request to decide in the area of natural gas. The requests related to the network charge, which was dismissed.

4.2.5. Ensuring compliance with legislation

In 2011 the Energy Agency monitored the implementation of the rules for the transmission system operator according to the Regulation (EC) 715/2009 on conditions on access to gas transmission networks and repealing Regulation (EC) 1775/2005. For this purpose a questionnaire was prepared according to requirements on ensuring transparency of the operation of the TSO. On the basis of this questionnaire the Energy Agency determined that certain requirements are not yet met, so the TSO was called for fulfil the requirements of the relevant Regulation.

4.3 The reliability of the natural-gas supply

In 2011 the security supply with natural gas to the customers on the transmission and distribution networks was not at risk in any way.

Security of supply was not altered due to the relevant legislation, thus the approach to ensuring security of supply did not change significantly. The existing tools and mechanisms were used in the same manner and to the same extent.

Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC entered into force at the end of 2010. In 2011, according to this Regulation, Member States were obliged to assess the risks affecting the security of gas supply, and send the full report to the European Commission.

As the competent authority, the Ministry of Economics invited the Energy Agency to participate in implementation of this extensive project. The Energy Agency is, in the future, expected to be the responsible authority, called by the Government, for carrying out these tasks.

Risks assessment was carried out quality and in time and was sent to the Commission. Risks assessment includes different scenarios and analysis of risks of technical, socio-political, economic and environmental origin. This assessment will be used in the future as a basis for determining preventive measures and emergency plans, which have to be prepared in 2012.

In the long-terms development plans of the gas transmission system operator new investment are projected. Except for elimination of technical congestions, these investments also contribute to diversified use of gas and, consequently, to greater reliability of gas supply. The constructions are carried out in line with the priorities determined in the development plans that were approved of by the Ministry of Economics.

4.4 The protection of customers

The household customer of natural gas buys energy as individual and uses it for own domestic use. For this reason 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 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.

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 customer's right to switch supplier free of charge, different payment modes, and deciding on the customer's complaints.

Household customers have the right to choose and change supplier of natural gas. The Energy Agency offers on its website an application Informator, 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 customer can choose a supplier. Switching can be done without any costs for a customer. 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 2011, 3,868 users were disconnected, out of which 3,083 were customers; most of them (1261) due to non payment of bills. To

870 customers the distribution was stopped permanently. Despite the non-payment of bills, the system operator in 2011 did not disconnect 896 customers, 56 of them were referring to the rights of not being disconnecting because their lives and health would be endangered.

4.4.1 The protection of vulnerable customers

Protection of vulnerable customers is one of the most important forms of cus-tomer 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 customer, and the persons living with the customer, are not threatened.

In line with the provision of Decree on functioning of the natural gas market a household customer 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.

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 the customer is connected.

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

In Slovenia the customer's right to legal redress is appropriately provided for, as the regulations determine several ways of exercising this right in the energy market.

In line with the EA, a user of gas network has the right to appeal against the decision of a system operator relating to issuing or denying a connection approval. The Energy Agency decides on the appeal. 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, the charged use-of-network price, an alleged breach of the general supply conditions and the system operation, or the status of a specific customer.

In line with the general rules of civil law, the court is responsible for settling the disputes arising from the contractual relationships that are not under the authority of the Energy Agency. In Slovenia any breaches of the general rules relating to consumer protection are addressed and also appropriately sanctioned by the Market Inspectorate.

In 2011, the distribution system operators of natural gas received 5,028 complaints, of which there were 4,107 complaints from customers, which is 10.09% less then the year before. 90%. Most of the complaints were related to invoicing (4,054). A total of 3,699 complaints were unjustified, which was 90.06% of all complaints received. A detailed presentation of complaints by subject is given in Table 33.

Table 33: Complaints of gas customers to DSO in 2011

Total number of all complaints	4,107
Connection procedure	4
Planned interruption of supply	3
Unplanned interruption of supply	2
Network charge	24
Metering	10
Bill	4,054
Others	10
Unjustified complaints	3,699

Source: Energy Agency

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 customer is an agreement on the mode of dispute- settling arising from the contractual relationship.

In line with the Ordinance on Natural-Gas Market Operations, the customers 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 customer's comment and reply to it.

Suppliers of natural gas in 2011 received a total of 5,029 complaints, of which 4,505 were from customers. Most complaints were related to bills, details are given in Table 34.

Of all complaints received 84.68% of them were rejected by suppliers.

Table 34: Complaints of gas customers to suppliers in 2011

Total number of complaints	4,505
Price	80
Contract terms	1
Bill	4,283
Technical reasons	108
Disconnection due to non-payment	14
Others	19
Unjustified complaints	3,815

Source: Energy Agency

4.4.3 The right to compensation

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

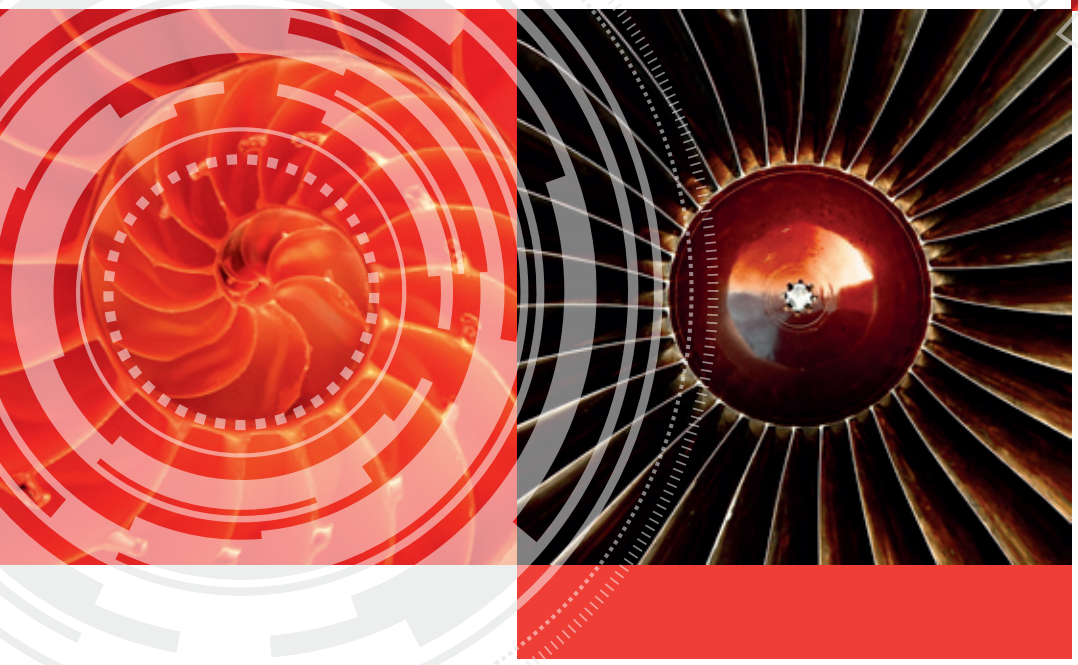
4.4.4 Publication of prices

All the suppliers of natural gas but one - Adriaplin were publishing gas prices on their websites in 2011 without using a special password.

All prices were without any restrictions available through web application Informtor, provided by the Energy Agency on on its website.

The gas prices for household customers 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 Energy Act and methodologies for determining and charging network charge.

5 DISTRICT HEATING



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. The distribution of heat includes the supply of heat or cold from the distribution networks, and the operation of the system operator of the distribution network. Prior to the start of these services, or to distribute heat the providers have to obtain, from the Energy Agency, a licence to produce heat for the district heating or cooling if the total installed thermal power of their production units is above 1 MW.

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 The supply of district heating

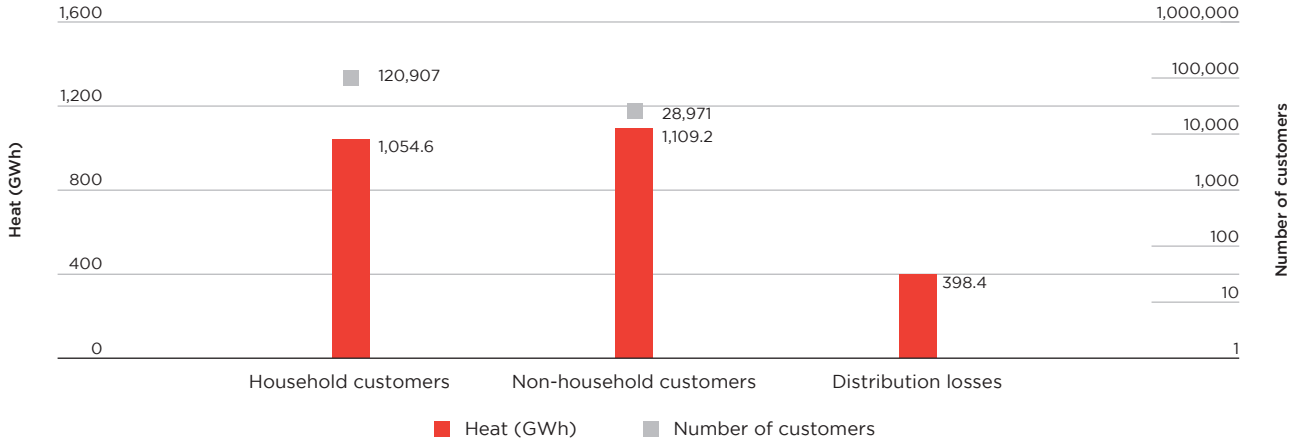
In Slovenia in 2011, 87 of the 102 licence holders, active in 49 municipalities, were involved in heat supply. Of these companies, 58 were involved in both heat distribution for district heating and heat production for district heating of above 1 MW; 15 companies were only involved in the distribution, while the remaining 14 companies only produced heat.

A larger system with a cooling aggregate power of the 965 kW operates in the Velenje City Municipality; while investing in new systems of district cooling is because of the economic recession currently suspended.

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, pro-duced 2,547.5 GWh of heat and 826.3 GWh of electricity, or 690.5 GWh of electricity at the busbars of the cogeneration processes. The largest share of heat –1,054.6 GWh, or 41.4% – was used for the supply to 120,907 household customers, while 1,109.2 GWh or 43.5% of heat was used for the supply to industrial and other non-household customers. Heat losses incurred during the distribution amounted to 15,5% of all the heat delivered to the distribution networks.

Figure 72 shows the heat consumption by type of customers and the customer numbers.

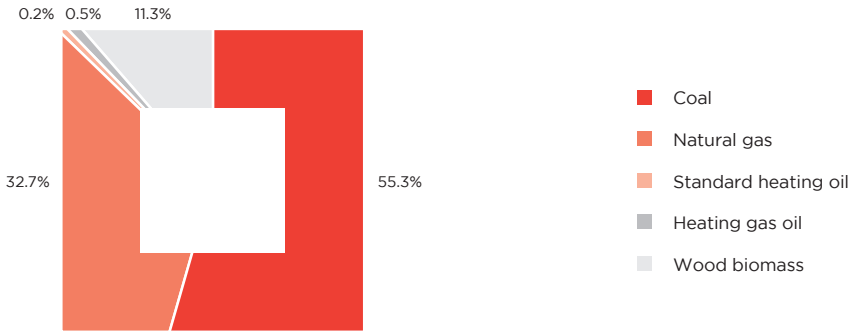
Figure 72: Heat consumption by type of customers and the customer number



Source : Energy Agency

In the structure of used primary energy sources for the heat production, coal had a 55.3 percent share, natural gas had a 32.7 -percent share and heating oil had a 0.7 -percent share. Wood biomass and other primary renewable sources of energy had a 11.3-percent share in the structure of the energy sources.

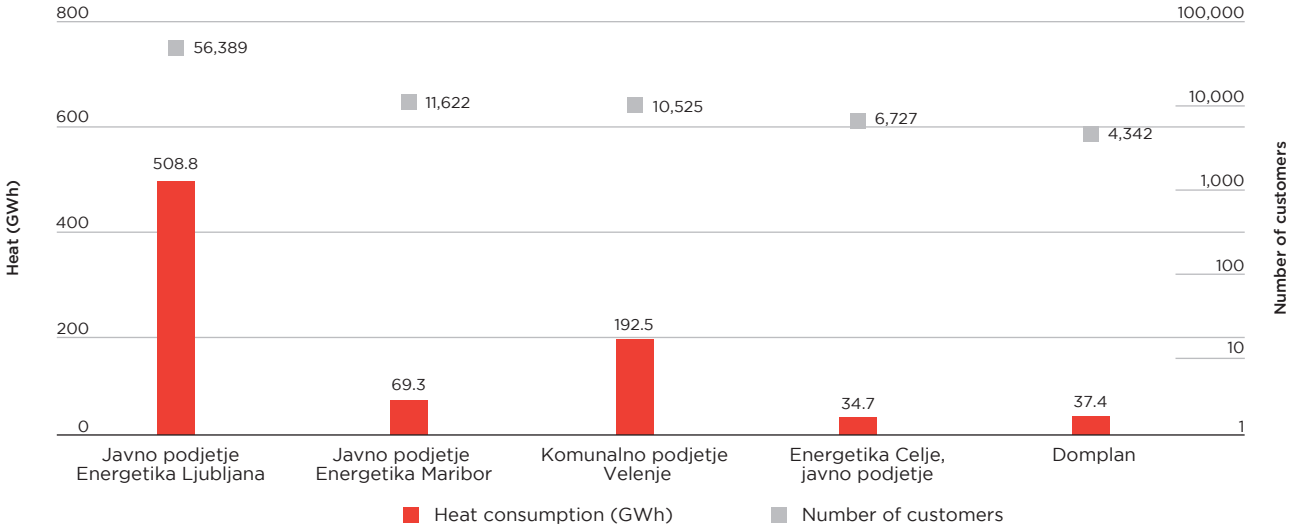
Figure 73: Structure of the primary energy sources for the production of heat for district heating



Source: Energy Agency

The 5 largest heat-distribution companies supplied 77.6% of all the households, distributing 79.9% of the heat produced for district heating. Figure 74 shows the distributed amounts of heat to the household customers and the number of customers, which are supplied by the five largest distribution companies.

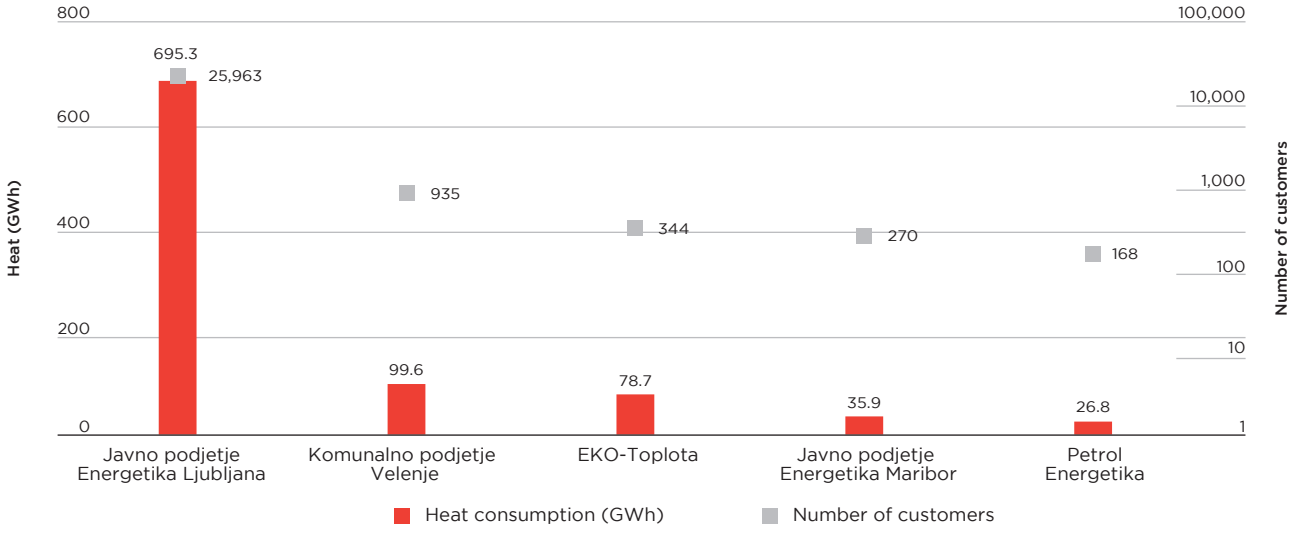
Figure 74: Largest distributors of heat to households in 2011



Source: Energy Agency

The five largest distribution companies supplied heat to 98.7% of all non-household customers, distributing to them as much as 84.4% of the required heat, as shown in Figure 75.

Figure 75: Largest distributors of heat to non-households in 2011

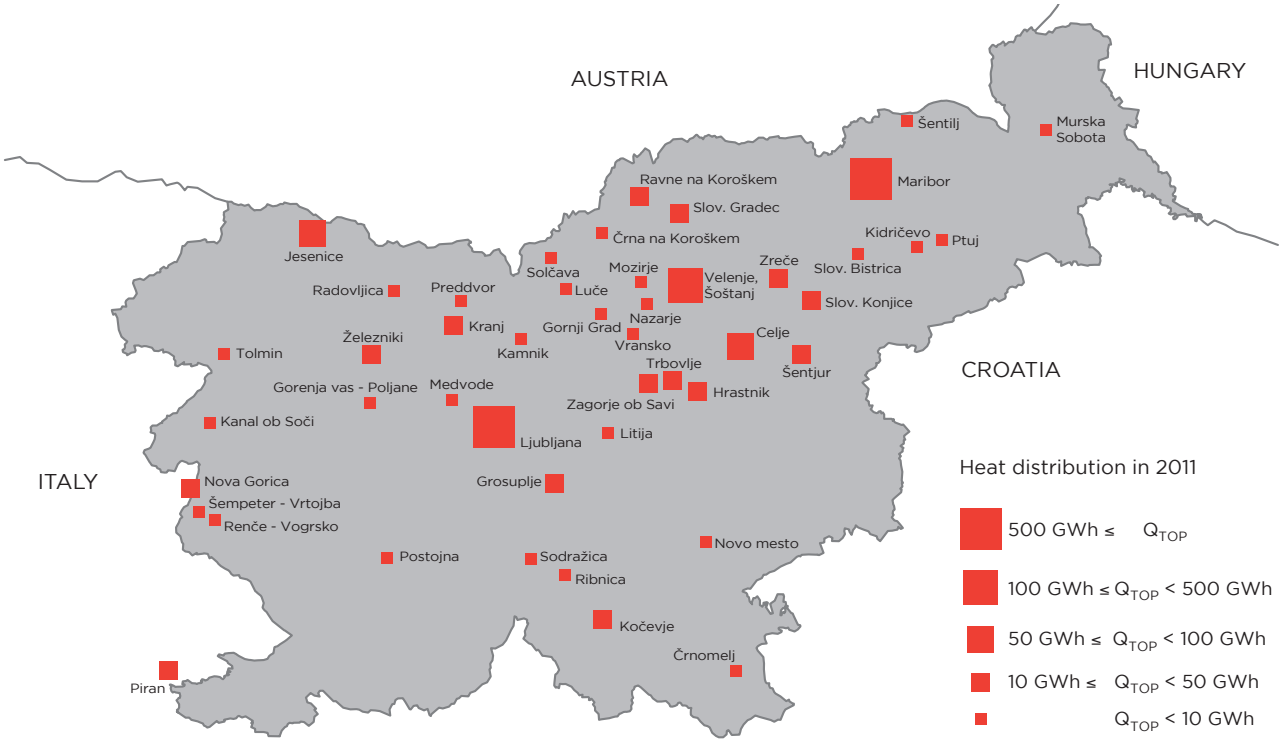


Source: Energy Agency

5.2 The distribution network

In 2011 the service of heat distribution was, in the Republic of Slovenia, carried out by 73 licence holders. The heat distribution networks were set up in 49 of the 210 Slovenian municipalities, their total length being 733.6 kilometres. The system of with a cooling power is carried out only in the Velenje City Municipality, the distribution network is 1.05 kilometres long. The next figure shows their locations and the sizes of the distributed amounts.

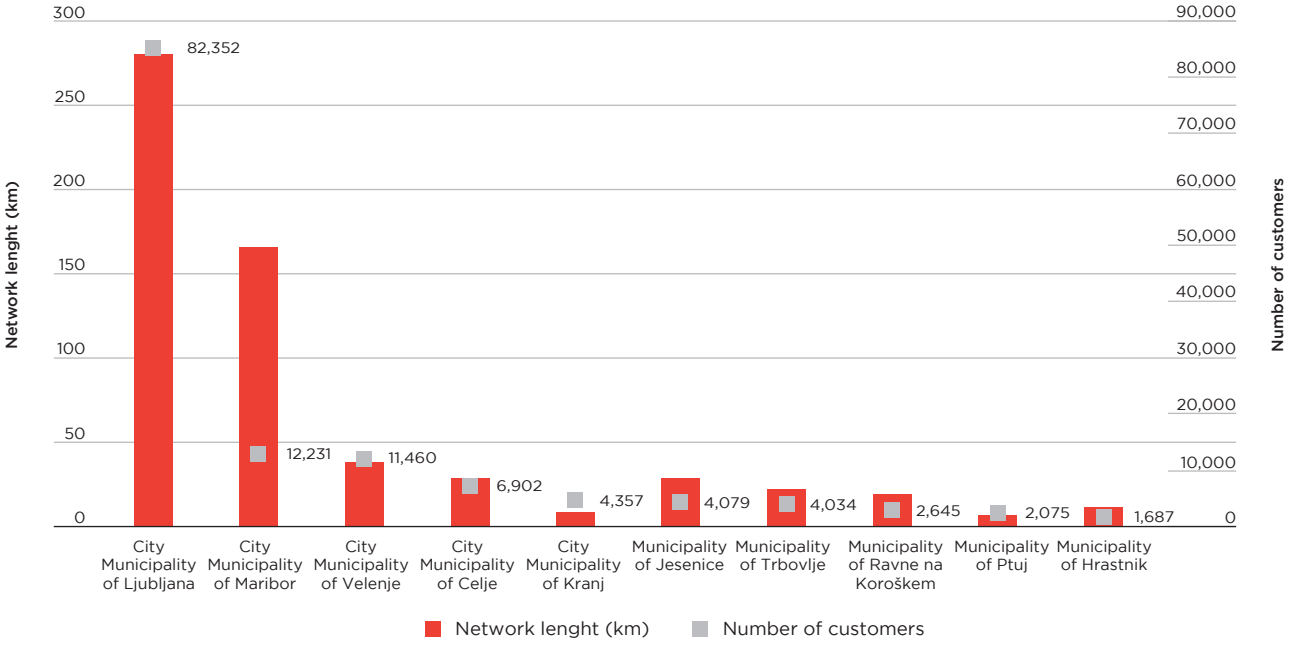
Figure 76: Heat distribution networks in Slovenia in 2011



Source: Energy Agency

With respect to the temperature regime of the operations of individual networks, the networks are the 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 (267.8 kilometres of hot-water and warm-water network) and Velenje, together with Šoštanj, (158.7 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 77: Length of heat distribution networks by municipality, and the numbers of connected users in 2011



Source: Energy Agency

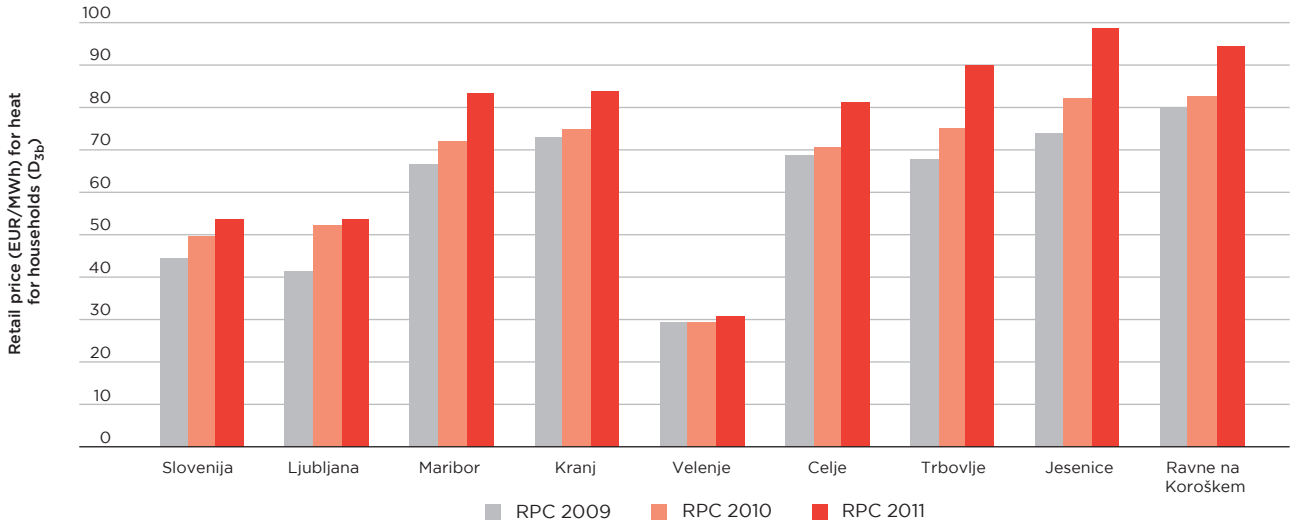
5.3 The prices for heat

The data relating to the average retail prices for heat from the distribution networks have been taken from the current price-lists of selected business entities for the production and supply of heat for standard customer group D3b. The data relate to a selected number of Slovenian municipalities, whose amount of heat supplied to the households in 2011 accounted for 52.1% of the total supply.

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

Figure 78 shows the average retail prices for heat from the distribution systems relating to selected Slovenian municipalities, calculated as a weighted average of the retail prices versus the number of heat customers. It also shows the average Slovenian retail heat price, calculated as a weighted average of the prices for a selected number of towns. The price for heat for household customers compared to 2010 increased on average by 8.3%; the highest price increases, namely 19.5%, affected customers in Jesenice.

Figure 78: Trends in the average retail prices of district heating for household in selected Slovenian towns for 2009–2011



Source: Statistical office of the Republic of Slovenia

5.4 The Energy Agency's activities related to district heating

With respect to heat supply, the Energy Agency performs the following tasks:

- issuing general acts for exercising the public powers relating to:
  - the methodology for setting the general conditions for the supply and consumption of heat from the distribution networks;
  - the methodology for the preparation of the tariff systems for the supply and consumption of heat from the distribution networks;
- giving approval to the system operation instructions for the heat distribution networks;
- deciding on the issuing and revoking of the licences for producing heat for district heating of above 1 MW and for distributing heat for district heating.

5.4. The methodology for determining the general conditions for the supply and consumption of heat from a distribution network

In order to harmonise the methodology for determining the general conditions for the supply and consumption of heat from a distribution network with the Energy Act, the Energy Agency adopted the Act amending the Act on determining the methodology the general conditions for supply and consumption of heat from a distribution network, which was published in the Official Gazette of the Republic of Slovenia No. 42/11, and which applies from 15 June 2011. The most important change set by the methodology is that the local authority consent to the general conditions for the supply and consumption of heat from a distribution network is no longer needed.

According to the Energy Agency, the monitoring of the public service provider in this area is reduced, because the current EA does not provide the authority, responsible to assess the compliance of the general conditions for the supply and consumption of heat from a distribution network with the Energy Agency's methodology. The Energy Agency presented this problem to the competent Ministry.

5.4.2 System operation instructions for the heat distribution network and the legal arrangements of the status of the public service provider

District heating is as a public service organized in 42 Slovenian municipalities. Municipalities, which reported to the Energy Agency that in their area district heating is provided as a public service, and where providers have not yet issued system operation instructions for the heat distribution network (hereinafter referred to as system operation instructions), where asked to submit the legal basis for providing public services of district heating. System operators with legal status were asked to submit the system operation instruction for approval.

In 2011 the Energy Agency issued 7 approvals to the system operation instructions. Due to inadequate legal arrangements of the public service for district heating it was not possible to continue with the procedure of issuing approvals to the system operation instructions for the geographical areas of Ptuj, Kidričevo and Kamnik. The Energy Agency asked the competent Ministry to explain its findings regarding legal arrangements of public service provider.

In the process of assessment the legal status of public service providers, this is a condition for issuing approval to the system operation instructions, the Energy Agency determined some legal imperfections; the competent Ministry was notified about them.

5.4.3 Records of appeals

On the basis of the eight paragraph of Article 71 of the EA, the Energy Agency keeps the records of appeals against the decisions on issuing or refusing an approval to connect to the network for the supply of heat or an energy gas, which are made by the mayors. The number of these appeals is submitted to the Energy Agency once a year.

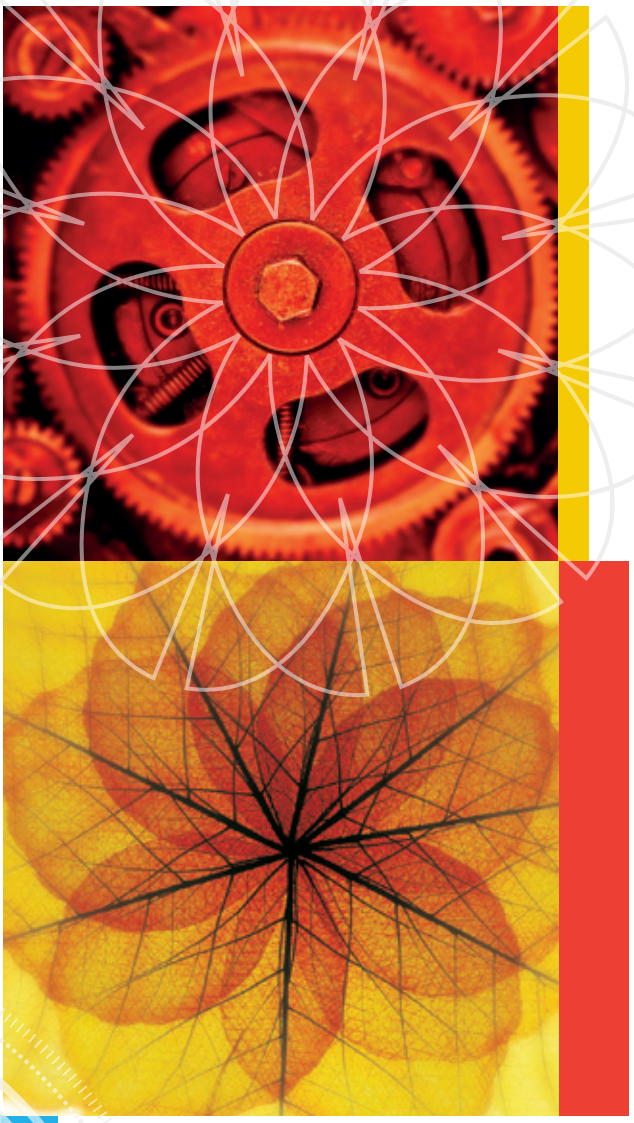
On the basis of the notifications from different municipalities, the Energy Agency established that, in 2011, there were no such appeals.

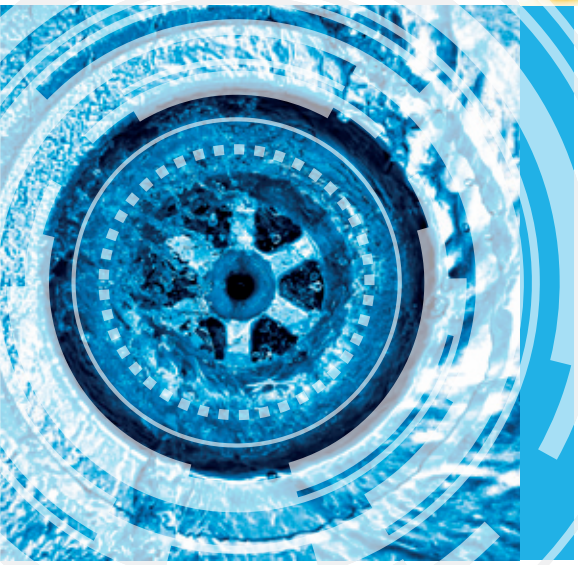
5.4.4. Suppliers' report

On the basis of the third paragraph of Article 33 of the EA, the suppliers, if they carry out the market activity of the end customers, are obliged to submit to the Energy Agency once a year the report on the total annual amount of supplied energy; the report has to be submitted up to 15 February for the previous year.

5.4.5 Deciding on disputes and appeals

In 2011 the Energy Agency received 2 requests to decide. Both requests were related to the alleged breaches of the general conditions for the supply and consumption. One request was rejected by the decision, for the second request the decision was issued, but the appeal was later sent to the Ministry of Economics.





6 APPENDIX

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List of abbreviations and acronyms

ACER	The European Agency for the Cooperation of Energy Regulators
CBTCS	cross-border transmission capacities
CEER	Council of European Energy Regulators
CGS	combined gas and steam
CHP	combined heat and power
CSLOeX	hourly index
DSO	distribution system operator
DTS	distribution-transformer station
DES	domestic energy sources
EA	Energy Act, the Official Gazette of the RS, 27/07 (EZ-UPB2), 70/08 (EZ-C)
EEX	European Energy Exchange AG, Leipzig
EFT	Električni finančni tim, d.o.o.
Eles	Eles – Elektro Slovenija, d.o.o.
Energy Agency	Energy Agency of the Republic of Slovenia
ERGEG	European Regulators Group for Electricity and Gas
ETSO	European Transmission System Operators
GDP	gross domestic product
GPP	gas power plant
GoO	guarantee of the origin
HHI	Herfindahl-Hirshmann index relating to market concentration
HPP	hydroelectric power plant
HSE	Holding Slovenske elektrarne, d.o.o.
HV	high voltage
Krško NPP	Krško Nuclear Power Plant, d.o.o.
LV	low voltage
MRS	metering-regulation station
MV	medium voltage
NPP	nuclear power plant
P+ and P-	main energy imbalance prices
PSPP	pumped-storage power plant
RECS	Renewable Energy Certificate System
RES	renewable energy sources
RS	Republic of Slovenia
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SLOeX	organised electricity market index
SODO	SODO Electricity Distribution System Operator, d.o.o.
TPP	thermoelectric power plant
TSO	transmission system operator

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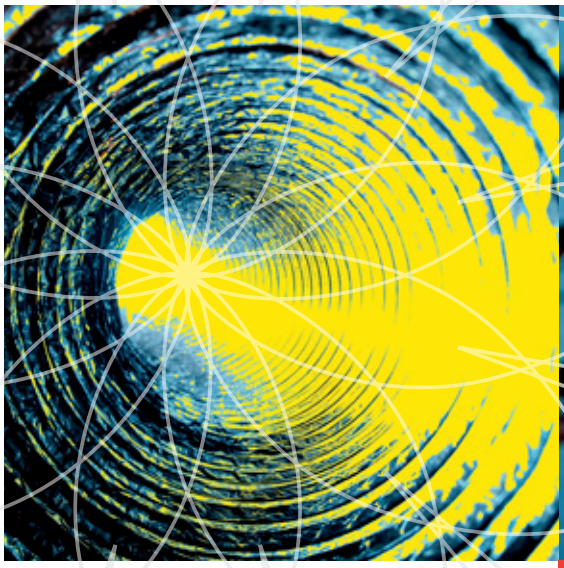

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