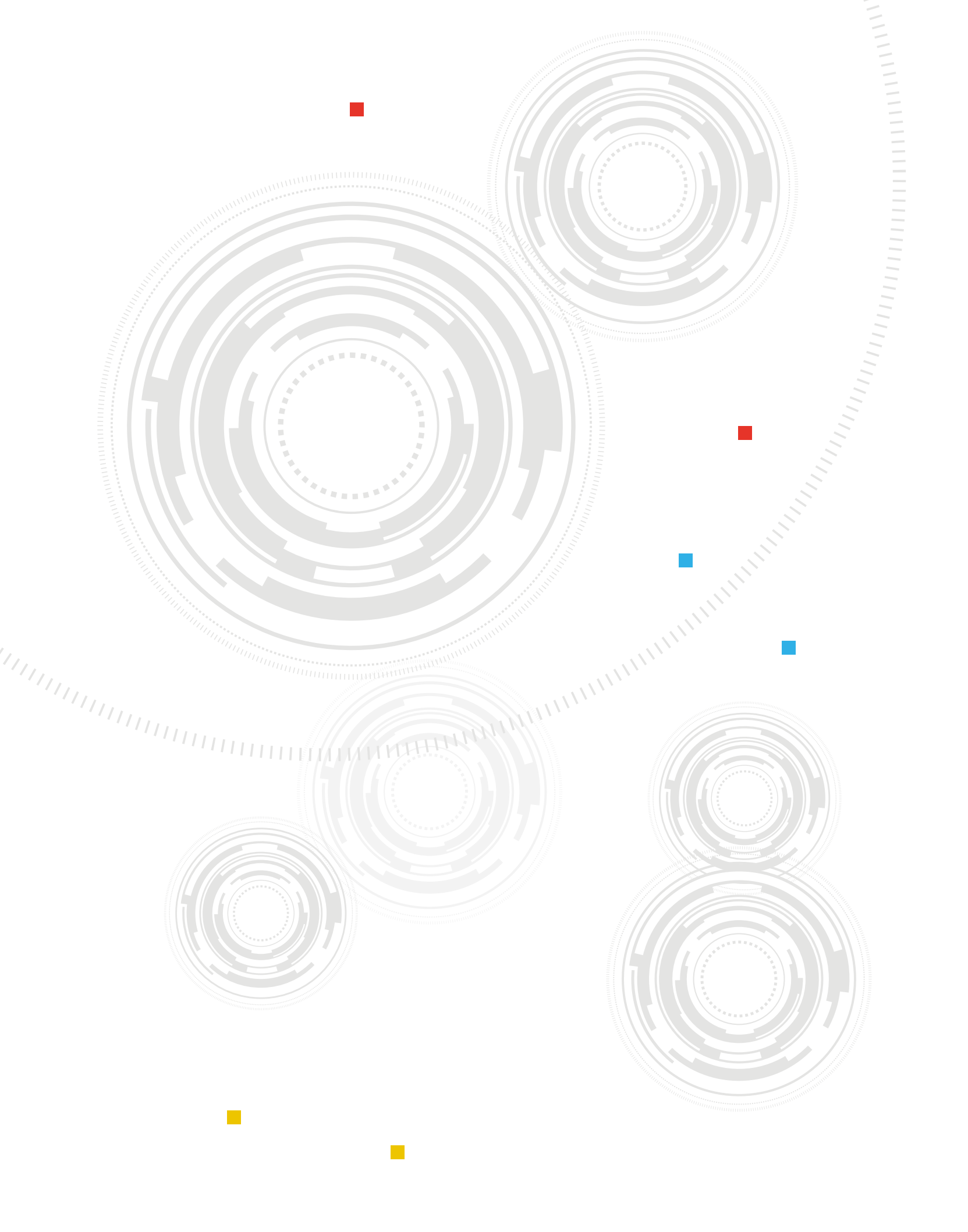




# Report on the Energy Sector in Slovenia for 2010

The Council of the Energy Agency of the Republic of Slovenia adopted this report at its 21<sup>st</sup> regular session, on 22 June 2011.  
The Government of the Republic of Slovenia gave its approval to this report at its 146<sup>th</sup> regular session, on 28 July 2011.



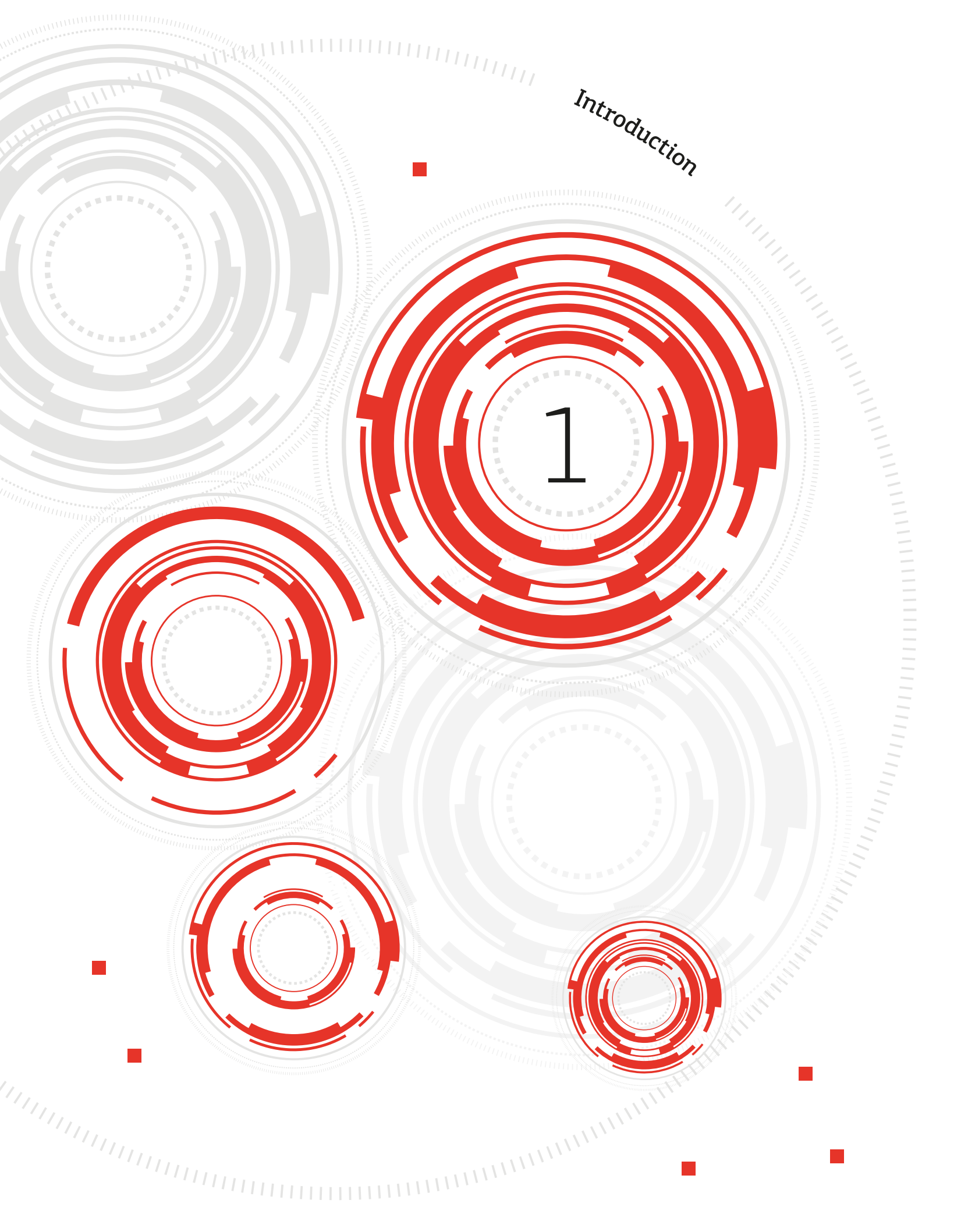
6	1	<b>INTRODUCTION</b>
8	2	<b>SUMMARY</b>
10	3	<b>DEVELOPMENT OF THE ENERGY MARKETS AND THE MAIN ACTIVITIES OF THE REGULATOR</b>
11	3.1	The basic details regarding the markets for electricity and natural gas in Slovenia
12	3.2	The regulator's most important activities and its organisational structure
12	3.3	The development of the markets of electricity and natural gas
13	3.3.1	The development in the market for electricity
13	3.3.2	The development in the market for natural gas
13	3.4	The main areas that involved the regulator
14	3.4.1	The regulatory framework for electricity network
14	3.4.2	The quality of electricity supply
14	3.4.3	Access to cross-border transmission capacities
15	3.4.4	The renewable energy sources and the cogeneration of heat and power
15	3.4.5	The adoption of general acts for exercising public powers in the area of natural gas
15	3.4.5.1	The acts and rules relevant to the gas transmission network
15	3.4.5.2	The network charge for the gas transmission network
16	3.4.5.3	Network charges for the gas distribution networks
16	3.4.5.4	General conditions for the supply and consumption of natural gas from distribution a distribution network
16	3.4.5.5	System operation instructions for a gas distribution network
16	3.4.6	Deciding on the licences to carry out energy activities
17	3.4.7	Deciding on disputes and appeals
17	3.4.8	The control over the retail markets for electricity and natural gas
17	3.4.9	The area of district heating
20	4	<b>ELECTRICITY</b>
21	4.1	General information
24	4.2	The regulation
24	4.2.1	The regulation of transmission and distribution activities
25	4.2.1.1	The business operation of the transmission system operator
25	4.2.1.2	The business operation of the distribution system operator
26	4.2.1.3	The business operation of the owners of the electricity distribution infrastructure
27	4.2.1.4	The investments in the electricity networks
29	4.2.1.5	The long-term development of the electricity network
30	4.2.1.6	The business operations of the market operator
31	4.2.2	The unbundling of services
31	4.2.3	The network charges for the transmission and distribution networks
31	4.2.3.1	The mode of setting the network charges for the transmission and distribution networks
31	4.2.3.1.1	The charging for the network charge
31	4.2.3.1.2	The setting of the network charge
32	4.2.3.2	The supply quality
32	4.2.3.2.1	The commercial quality
32	4.2.3.2.2	The supply continuity

33	4.2.3.2.3	The voltage quality
33	4.2.3.2.4	The supply quality at the distribution level
37	4.2.3.2.5	The voltage quality of the transmission network
38	4.2.3.3	The prices for the use of electricity networks
40	4.2.4	<b>The allocation of cross-border transmission capacities and the congestion-management mechanisms</b>
41	4.3	<b>The market-based activities and competition</b>
41	4.3.1	<b>The production and the wholesale market</b>
41	4.3.1.1	The production of electricity
44	4.3.1.2	The business operations of production companies
45	4.3.1.3	The electricity from renewable sources and cogeneration of electricity and useful heat
47	4.3.1.4	The emission coupons
49	4.3.1.5	The degree of competitiveness of the production companies
51	4.3.1.6	The provision of ancillary services
52	4.3.1.7	Trading on the organised market
53	4.3.1.7.1	The prices and the extent of the trade at the electricity exchange
53	4.3.1.8	The degree of electricity-market integration with the neighbouring countries
55	4.3.2	<b>The supply and the retail market</b>
55	4.3.2.1	The suppliers in the retail market
59	4.3.2.2	The degree of competitiveness in the retail market
61	4.3.2.3	The prices for electricity
61	4.3.2.3.1	The prices of electricity for industrial customers
63	4.3.2.3.2	The prices of electricity for household customers
64	4.3.2.3.3	Web application – Comparison of suppliers
66	4.3.2.4	The balancing
68	4.3.3	<b>The measures taken to prevent any abuse of a dominant position and to ensure competition</b>
68	4.3.4	<b>The decisions on disputes and appeals</b>
70	5	<b>NATURAL GAS</b>
71	5.1	<b>General information</b>
72	5.2	<b>The regulation and the regulated services</b>
72	5.2.1	<b>The regulation of the transmission and distribution activities</b>
73	5.2.1.1	The transmission of natural gas
73	5.2.1.1.1	The gas transmission network
74	5.2.1.1.2	The business operation of the transmission system operator
74	5.2.1.1.3	The ownership of the transmission system operator
74	5.2.1.1.4	The investments in the transmission network
75	5.2.1.2	The distribution of natural gas
77	5.2.1.2.1	The customers connected to the distribution network
78	5.2.1.2.2	The business operations of the distribution system operators
78	5.2.1.2.3	The ownership structure of the distribution system operators and the network ownership
78	5.2.1.2.4	The investments in the distribution networks
79	5.2.1.3	The network charges for the gas transmission and distribution networks
79	5.2.1.3.1	The network charge for the gas transmission network
80	5.2.1.3.2	The network charge for the gas distribution networks

81	5.2.1.4	The balancing
82	5.2.1.5	The secondary market of transmission capacities
83	5.2.2	<b>The unbundling of services</b>
83	5.2.3	<b>The allocation of cross-border transmission capacities</b>
83	5.2.3.1	The cross-border transmission capacities of the network
85	5.2.3.2	The methods of setting the maximum technical capacity
85	5.2.3.3	The allocation of the transmission capacities of the network
86	5.2.4	<b>The congestion-management mechanisms</b>
86	5.3	<b>The market-based activities and competition</b>
87	5.3.1	<b>The sources of natural gas and the wholesale market</b>
88	5.3.2	<b>The supply and the retail market</b>
89	5.3.2.1	The customers connected to the transmission network
89	5.3.2.2	The customers connected to the distribution networks
90	5.3.2.3	The prices for natural gas in Slovenia
94	5.3.3	<b>The measures taken to prevent any abuse of dominant position and to ensure competition</b>
94	5.3.3.1	The findings and measures of the ministry responsible for competition
94	5.3.3.2	The findings and measures of the ministry responsible for energy
94	5.3.4	<b>The deciding on disputes and appeals</b>
96	6	<b>SECURITY OF SUPPLY</b>
97	6.1	<b>The reliability of the electricity supply</b>
97	6.1.1	<b>The sufficiency of the production</b>
99	6.1.2	<b>The planned investments in the production facilities</b>
101	6.1.3	<b>The security of the network operation</b>
101	6.2	<b>The realibility of the natural-gas supply</b>
102	7	<b>PROVISION OF PUBLIC SERVICES AND THE STATUS OF CUSTOMERS</b>
103	7.1	<b>The provision of public services</b>
103	7.2	<b>The protection of customers</b>
103	7.2.1	<b>The protection of vulnerable customers</b>
104	7.2.2	<b>The right to appeal, or the right to legal redress, and the setting of disputes</b>
104	7.2.3	<b>The right to compensation</b>
105	7.2.4	<b>The publication of the prices</b>
105	7.3	<b>The safeguarding of transparency</b>
106	8	<b>DISTRICT HEATING</b>
107	8.1	<b>The supply of district heating</b>
109	8.2	<b>The distribution networks</b>
110	8.3	<b>The prices for heat</b>
113		<b>List of figures</b>
116		<b>List of tables</b>
117		<b>List of abbreviations and acronyms</b>

Introduction

1



According to economic indicators and comments, an active, and despite the still difficult economic situation, a successful year is behind the Slovenian energy sector.

Quality and secure supply of electricity and natural gas was provided to customers all the time; thanks to all who works in these systems. This also applies to the Energy Agency, which successfully regulated electricity and natural gas market for a decade. There was a lot of work to do, new acts related to electricity and the transmission network were adopted. Extensive work was done in the area of renewable sources and high-efficiency cogeneration. The Energy Agency issues production declarations and decisions on granting support, guarantees of origin and the RECS certificates, as well as sets and monitors the obligation to display production sources.

Preparations on implementing the Third Energy Package of EU directives and regulations, which imposes even greater amount of tasks and competencies upon regulators, were held throughout year. The Energy Agency also participated in drafting the new Energy Act and National Energy Programme.

Agency for the Cooperation of the Energy Regulators (ACER) started with its work, and the opening of its premises coincided with the entry into force of the Third Energy Package on the internal energy market of the European Union.

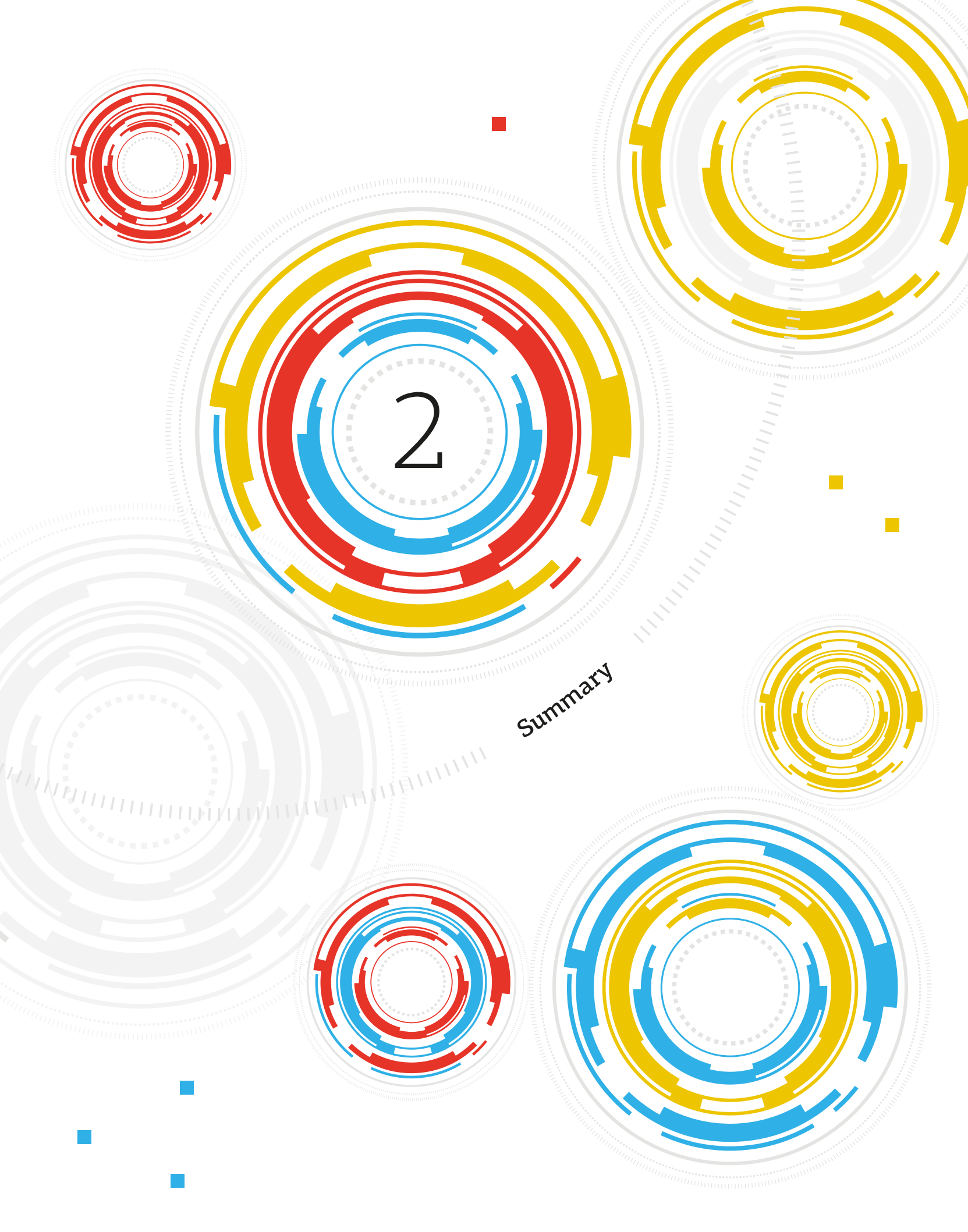
Just a few highlights of a year behind us are mentioned here. I hope you will find the report useful, and I wish you a pleasant reading. And your comments are also welcome.

Irena Praček, univ. grad. econ.,  
Director



2

Summary





The Energy Agency – the Slovenian energy regulator - prepared just like every year since its inception- the Report on the Energy Sector in Slovenia. The report contains the text covering all the issues 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.

The structure of the report remained the same.

The initial section provides basic information on markets for electricity and natural gas and the main activities of the regulator.

Two sections follow that describe in detail the operating of the electricity and natural gas market. The production and consumption of electricity increased in comparison with the previous year, as well as the number of switches of the supplier of electricity. Customers consumed 3 percent more natural gas than the year before, but still gas is mainly used in industry. The year 2010 was marked by continued growth of gas prices for all standard customer groups in Slovenia.

Section 6 is about the security of electricity and gas supply. In 2010 Slovenia produced slightly less electricity than it needed but nevertheless the supply of electricity was never interrupted because of lack of resources.

The supply of natural gas was reliable the whole year; the Regulation (EU) 994/2010 of the European Parliament and Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, which came into force in December, introduces new rules on the provisions of a reliable supply of natural gas.

Last but not one section provides an overview of customer rights protection, the provision of public services, and safeguarding of transparency in markets for electricity and natural gas.

The final section is a description of the area of district heating and regulator's activities relating to this area. The largest share of the total thermal energy produced was intended to supply household customers, price increased on average by 11.7 percent.



3

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

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

### Slovenia

Population (1. 1. 2011)	2,050,189
Area	20,273 km <sup>2</sup>
Number of electricity customers (31. 12. 2010)	920,911
Number of natural –gas customers (31. 12. 2010)	128,769
Gross domestic product (GDP)	36,061 million euros
Increase in GDP	1.2%
Inflation	1.9%
GDP per person	17,602 euros

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

### Electricity

<b>Installed capacity</b>	<b>3,363 MW</b>
Hydroelectric power plants	1,114 MW
Thermoelectric power plants	1,276 MW
Nuclear power plant	696 MW
Small producers	277 MW
<b>Production of electricity</b>	<b>15,260 GWh</b>
Hydroelectric power plants	4,248 GWh
Thermoelectric power plants	4,795 GWh
Nuclear power plant	5,371 GWh
Small producers	846 GWh
<b>Length of the transmission network</b>	<b>2,614 km</b>
– 400 kV	508 km
– 220 kV	328 km
– 110 kV	1,766 km
– cables	12 km
<b>Length of the distribution networks</b>	<b>63,862 km</b>
– 110 kV	814 km
– 35, 20 in 10 kV	17,545 km
– 0.4 kV	45,503 km
<b>Consumption of electricity</b>	<b>12,159 GWh</b>
PSPP Avče	245 kWh
Business customers	8,695 GWh
Household customers	3,219 GWh
<b>Annual consumption per person</b>	<b>5,811 kWh</b>
<b>Average household consumption per month</b>	<b>328 kWh</b>

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.

Source: Companies' data

## Natural gas

<b>Length of the transmission network</b>	<b>1,018 km</b>
– more than 16 bar	809 km
– less than bar	209 km
<b>Length of the distribution networks (up to 16 bar)</b>	<b>4,163 km</b>
<b>Consumption of natural gas</b>	<b>1,050 million of Sm<sup>3</sup></b>
Customers on the distribution networks	320 million of Sm <sup>3</sup>
Industrial customers	730 million of Sm <sup>3</sup>
<b>Annual consumption per person</b>	<b>512 of Sm<sup>3</sup></b>

Source: Companies' data

### 3.2 The regulator's most important activities and its organisational structure

The Energy Agency of the Republic of Slovenia (hereinafter referred to as the Energy Agency) is the regulator of energy-related activities, in line with the provisions of the energy-related legislation. By setting the network charges for electricity and gas networks, the regulator sets the objectives with respect to the operational efficiency of the regulated services, and the incentives for achieving these objectives. The regulator controls the non-discriminatory network access, and the operation of the market, where it also identifies possible cases of abuse and reports on them. In addition, the regulator decides on disputes and appeals, issues the licences for energy-related activities that require licences, and gives approval to, or opinions on, the acts of the system operators.

With respect to the production of electricity from the renewable sources (hereinafter referred to as RESs) and in the cogeneration facilities (hereinafter referred to as CHP), the Energy Agency issued declarations for production facilities and decision on granting support. It issues guarantees of the origin and tradable RECS certificates (Renewable Energy Certificate System) for the electricity produced from RESs. It also determines and supervises the mandatory disclosure of the production-source structure.

With respect to the supply of district heating, the Energy Agency determines the methodology for the preparation of the general acts of the heat suppliers.

The Energy Agency annually reports to the Government of the Republic of Slovenia (hereinafter referred to as the government) on its operations and on the conditions in the energy sector, as well as on the development of the competition in the energy markets. It also submits a report to the European Commission.

### 3.3 The development of the markets of electricity and natural gas

Consumption of electricity and natural gas was in 2010 higher; we consumed 8.2 percent more electricity and 3 percent more natural gas. Especially household costumers consumed more natural gas.

The final price of electricity for typical industrial costumer in Slovenia was at the end of the year very much the same as in 2009; the final price for household customer increased despite lower price of energy and stable use-of-network price because of the contributions intended to provide support to production from domestic sources, from RESs and CHP, and to implement programs to increase electricity end-use efficiency.

The basic price of natural gas, which follows the prices of oil and oil products, was increasing again in 2010. Movements of prices in 2010 were influenced by expectations of an end of financial crisis and the revitalization of economy. Particularly, the price of natural gas increased, for household customers by almost 20 percent.

### 3.3.1 The development in the market for electricity

There were no significant changes in the wholesale market in comparison with the previous year; position of the group HSE remained dominant, together with Gen energija maintained an almost 90-percent market share.

The retail market was more active, some new suppliers emerged, the number of the supplier switches increased again. GEN-I increased its market share, the number of switches was 17,782. None of the companies had dominant position on the market.

Due to economic situation and difficulties in placing facilities into physical place companies did not manage to realize all projects, but nevertheless, electricity sector completed or adopted several large energy projects. The story of the project TEŠ 6 was a common thread of the Slovenian energy sector, but we will have to wait to the end. Work continued on completing a chain of hydro power plants in the lower part of the river Sava and work on the 400 kV connection Beričevo-Krško began; and in March the trial operation of the hydroelectric power plant Avče started.

### 3.3.2 The development in the market for natural gas

The company Geoplin, d. o. o., which was also in 2010 the largest importer, trader and supplier of natural gas in Slovenia, ended the year successfully, with similar results as last year, when it sold slightly more than a billion cubic meter of gas. In comparison with the year before, the structure of long-term and short-term contracts for import of natural gas changed significantly. In 2009 only one percent of natural gas was imported on the basis of short-term contracts; in 2010 as much as 12 percent of gas was imported on the basis of such contracts. In the Slovenian wholesale market 5 suppliers were active.

The retail market is changing too; in 2010 a new supplier - Energetika Maribor - entered the market, but the share of switches was still below 0.2 percent.

Among the most important activities that will increase transmission capacities were the start of the construction of the pipeline Ceršak-Kidričevo and obtaining an operating permit for the compressor station Ajdovščina.

Most gas projects that will in the future affect transmission and hence trading of additional quantities – the construction of LNG terminal on the island Krk and pipelines Nabucco and South Stream are behind schedule.

## 3.4 The main areas that involved the regulator

The Energy Agency, the Slovenian energy regulator, provides the transparency of the market operations and regulates the public services in such a way that these services are carried out with high quality and at reasonable prices. The Energy Agency comprehensively monitors the operations of the energy market and its competitiveness, taking into account the national energy policy and harmonising the interests of all the market participants.

In addition, the Energy Agency's role includes the implementation of mechanisms for promoting electricity production from renewable sources and high-efficiency cogeneration.

The Energy Agency also cooperates with the EU institutions and with the other EU regulators, particularly within the European Regulators Group for Electricity and Gas (EREG), an advisory body to the European Commission. The role of EREG will be taken over by the Agency for Cooperation of Energy Regulators (ACER), which started to work in 2010, since 3 March its headquarters have been in Ljubljana.

Together with the other EU regulators, the Energy Agency is involved in the expansion of the energy market to the countries of South-East Europe. The energy market of the EU is being gradually developed in the internal market, and, to overcome the physical restrictions at the borders, the energy regulators from the EU countries encourage the market operations at the regional levels. In this process the Slovenian energy market is part of three electricity regions and one gas region. The Energy Agency has, in cooperation with regulators in the regions, an important

role, particularly in the harmonization of rules, and in monitoring the allocation of cross-border transmission capacities (CBTCs).

The year 2010 was marked by adoption of act related to the electricity network charge, and act related to the transmission network charge.

As we have already mentioned in the introduction, a wide range of work tasks related to the area of renewable energy sources and high-efficiency was carried out. Decisions on granting support includes issuing declarations for the production facilities, issuing decisions on granting support and issuing guarantees of origin.

### 3.4.1 The regulatory framework for electricity network

On the basis of the amendments to the Energy Act in March 2010, in which new methods of monitoring by the regulatory framework determined eligible costs and assessment of deviations (surplus and deficit) from the regulatory framework for each year and the regulatory period are established, the Energy Agency continued to substantially upgrade the methodology. Based on the comments from the public consultation process and on the basis of economic analysis, the Energy Agency prepared amended methodology for the regulatory period 2011-2012. In July 2010 the Council of the Energy Agency adopted the Act Determining the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for Electricity Networks, as well as the methodologies za charging the network charge for the period 2011-2011, which was published in the Official Gazette of the Republic of Slovenia, No. 59/2010. In accordance with the provision of the new methodology, the Energy Agency issued administrative decisions in October for both system operators, which established the network charge for the new period and tariffs that system operators charged to the network users.

### 3.4.2 The quality of electricity supply

Through regular analyses of the data obtained, the Energy Agency carried out monitoring the supply continuity (SAIDI, SAIFI) in the distribution companies. At the same time the update of activities related to the methodology of regulation in the area of minimum standards of quality was carried out.

In the context of implementing the process of monitoring the quality of electricity supply and after receiving feedback on the Act concerning the Submission of Data about Quality of Electricity Supply the Energy Agency defined more specifically the parameters on commercial quality.

An analysis was made of the suitability of some new indicators of supply continuity and indicators of availability for the needs of system operator to regulate the quality of supply.

Together with system operators activities were carried on to redesign e-services for submission of data about the quality, with which the Energy Agency wants to finally standardize data submission for all three levels of the supply quality, reduce the number of reports and speed up their issues, and thus reduce costs in regulated companies.

### 3.4.3 Access to cross-border transmission capacities

To implement the requirements of the EU Regulation 1228/2001/EC, the Energy Agency cooperated with other national regulators in the region in order to facilitate even more transparent conditions for allocation of cross-border transmission capacities (CBTCs) in 2010. In all three regions in which Slovenia is involved new rules for setting and allocating of free CBTCs have been harmonized and adopted.

In the region Central-Eastern Europe (CEE) the system operators will allocate CBTCs in a common way, carried out by the Auction House CAO (Central Auction House), Freising, Germany. In the region Central-South Europe (CSE) after 1 April 2011 all CBTCs auction will be taken over by the Auction House CASC CWE, which is located in Luxembourg.

Additional activities that marked the regulation of access to CBTCs for a day ahead, were related to the preparation of rules for market coupling on the Slovenian -Italian border through implicit auc-

tions instead of the current explicit. Since June 2009 intergovernmental working group has been operating, chaired by the representatives of Italian regulator and the Energy Agency. In July 2010 the master agreement which arranges major relations between the participants that will participate in market coupling, was completed. On the basis of agreements between the participants, the Council of the Energy Agency gave in October 2011 its consent to the master agreement.

In the middle of the year the Energy Agency prepared an annual report on the congestions revenues and their use, which transmission system operator earns in auctions. The report is made for European Commission, which monitors the implementation of the provision of the Regulation 1128/2003/EC.

### **3.4.4 The renewable energy sources and the cogeneration of heat and power**

In 2010 the Energy Agency issued 410 declarations for a production facility. Most of the facilities for which declarations were obtained were included in the support scheme; decisions on granting support were issued as well. According to the number of issued declarations, 285 facilities were newly built, out of that 276 were solar power plants.

The Energy Agency prepared a document called Announcing the Situation of the Production Facilities Using Renewable Energy Sources or High-Efficiency Cogeneration in the Electricity Market. The document is prepared in accordance with the Ordinance Regarding the Preparations for Announcing the Situation of the Production Facilities Using Renewable Energy Sources or High-Efficiency Cogeneration in the Electricity Market (the Official Gazette of the Republic of Slovenia, No. 83/09), which determines the method for calculating the reference price of electricity and energy sources – natural gas, wood biomass, corn silage and coal.

For the purpose of proving the origin of electricity, the Energy Agency was issuing guarantees of the origin of electricity in line with the valid legislation. A total for almost 3135 GWh of guarantees of origin was issued.

The Energy Agency is involved in the European Energy Certification System (EECS), in the Renewable Energy Certification System and the Renewable Energy Certification System - Guarantees of the Origin. In 2010 the Energy Agency issued for a total amount of 135,652 RECS certificates.

### **3.4.5 The adoption of general acts for exercising public powers in the area of natural gas**

#### **3.4.5.1 The acts and rules relevant to the gas transmission network**

In 2010, in the Official Gazette of the Republic of Slovenia, No. 59/10, two new acts for the gas transmission network were published:

- the Act Determining the Methodology for Setting Network Charge and Criteria Establishing Eligible Costs for the Gas Transmission Network
- the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network

These methodologies changed the duration of the regulatory period from one to three years, and determination of the prices for transmission of natural gas from one transmission system to another system.

The Energy Agency prepared the guidelines for charging for the gas imbalances. The documents were sent to the system operator and taken into consideration in preparing the Rules for Charging for the Gas Imbalances.

In 2010 the activities for developing common views on future role of the regulator in evaluating the system operator's development plans. For this purpose, the Energy Agency prepared a proposal for the mandatory contents of the three-year development plans and necessary evaluation activities.

### 3.4.5.2 The network charge for the gas transmission network

In March 2010 the Energy Agency received, from the transmission system operator, a request for issuing approval to the proposed network charged for the gas transmission network, to which the Council of the Energy Agency issued its approval. New prices came into force on 1 April 2010.

In 2010 the transmission system operator submitted 11 requests for a change to the basic price for natural gas from the transmission network. The Council of the Energy Agency gave approval to 8 requests.

In the line with the Article 31 of the Act Determining the Methodology for Setting Network Charge and Criteria Establishing Eligible Costs for the Gas Transmission Network the Energy Agency prepared online forms for submitting the requests for the network charge and for criteria establishing eligible costs and other elements of the network charge for the regulatory period 2011-2013. In October 2010 the transmission system operator submitted the request for issuing approval to the network charge and for criteria establishing eligible costs and other elements of the network charge for the regulatory period 2011-2013, but by the end of 2010 the approval had not been issued.

### 3.4.5.3 Network charges for the gas distribution networks

The Energy Agency issuing approvals to the proposed network charges for the gas distribution networks. In 2010, the Energy Agency received 16 requests from 11 system operators of distribution network for 57 local communities. For 32 local communities 10 approvals were issued in 2010.

### 3.4.5.4 General conditions for the supply and consumption of natural gas from distribution a distribution network

To shorten the procedures the Energy Agency offered system operators the preliminary harmonisation of the general conditions for the supply and consumption.

The Energy Agency invited 3 system operators who preliminary harmonised their proposals in the previous period, to submit their information report on the status of obtaining consents of local communities. The report showed that in this area the system operators performed their activities in accordance with their capabilities. In 2010 the Energy Agency issued approval to the amendments to the general conditions for the supply and consumption for 5 system operators. It also issued approval to the amendments of the act amending general conditions for the supply and consumption.

### 3.4.5.5 System operation instructions for a gas distribution network

In 2010 the Energy Agency issued 3 approvals to the system operation instructions for a distribution network.

## 3.4.6 Deciding on the licences to carry out energy activities

The Energy Act (EA) and the Ordinance Relating to the Requirements and the Procedure for Issuing and Revoking a Licence to Carry Out an Energy Activity determine the requirements for obtaining a licence to carry out an energy activity. These licences are granted by the Energy Agency on the basis of received licence applications. The Energy Agency decides on the issuing and revoking of a licence in the administrative procedure on the basis of the EA and the ordinance.

In line with the provisions of the ordinance, a licence is granted for 5 years, and after its expiry a licence holder has the right to obtain a new licence. In 2010 the Energy Agency issued 82 decisions relating to licence granting, 15 decisions on rejecting an application, one procedure was stopped before reaching its completion, and in addition, 8 decisions on modifying the name, or the address, of a licence holder were issued.



### 3.4.7 Deciding on disputes and appeals

In line with Article 88 of the EA, the Energy Agency decides, in the first instance in the administrative procedure, on disputes between the network users, or the interested parties, and the system operators, or the market operator, with respect to individual issues relating to:

- third-party access;
- charging for the use-of-network prices;
- supposed breaches of the general supply conditions and system operation instructions;
- established imbalances and amounts needed to cover the costs of balancing, as well as the breaches of general acts regulating imbalances and their balancing;
- the status of a specific customer.

The Energy Agency also decides, in the second instance in the administrative procedure, on appeals against the decisions of the system operator regarding the issued or refused connection approvals.

In comparison with 2009, the total number of disputes in 2010 increased. The Energy Agency received 48 requests for decision making; 46 requests were related to electricity, and 2 to natural gas. The Energy Agency issued decisions relating to 43 requests; against 3 decisions an appeal was submitted. The Energy Agency decided on 8 disputes from the previous period, against one an appeal was submitted. In all the cases the Energy Agency observed the statutory time limits relating to decision making, and, as an independent body, it made decisions in line with the legislative and executive regulations, and on the basis of the established facts.

### 3.4.8 The control over the retail markets for electricity and natural gas

With the web application called the "Comparison of suppliers" it is possible to compare the prices of electricity. You can also calculate the individual components of the price of electricity (energy price, network charge, the excise duty, the value-added tax) and retail price indexes. Analyses can be conducted on a monthly or yearly basis. This web application transparently presents the retail prices of electricity; customers can also have opportunity to check their bills.

For household customers of natural gas the Energy Agency prepared an overview of all suppliers and their prices for natural gas; the report is available on the Energy Agency's website. Tables show available data on the final prices for natural gas of individual supplier and also prices for different groups of customers (consumed amount).

The Energy Agency answered to many questions from the customers and other interested parties about the functioning of the electricity and gas markets.

### 3.4.9 The area of district heating

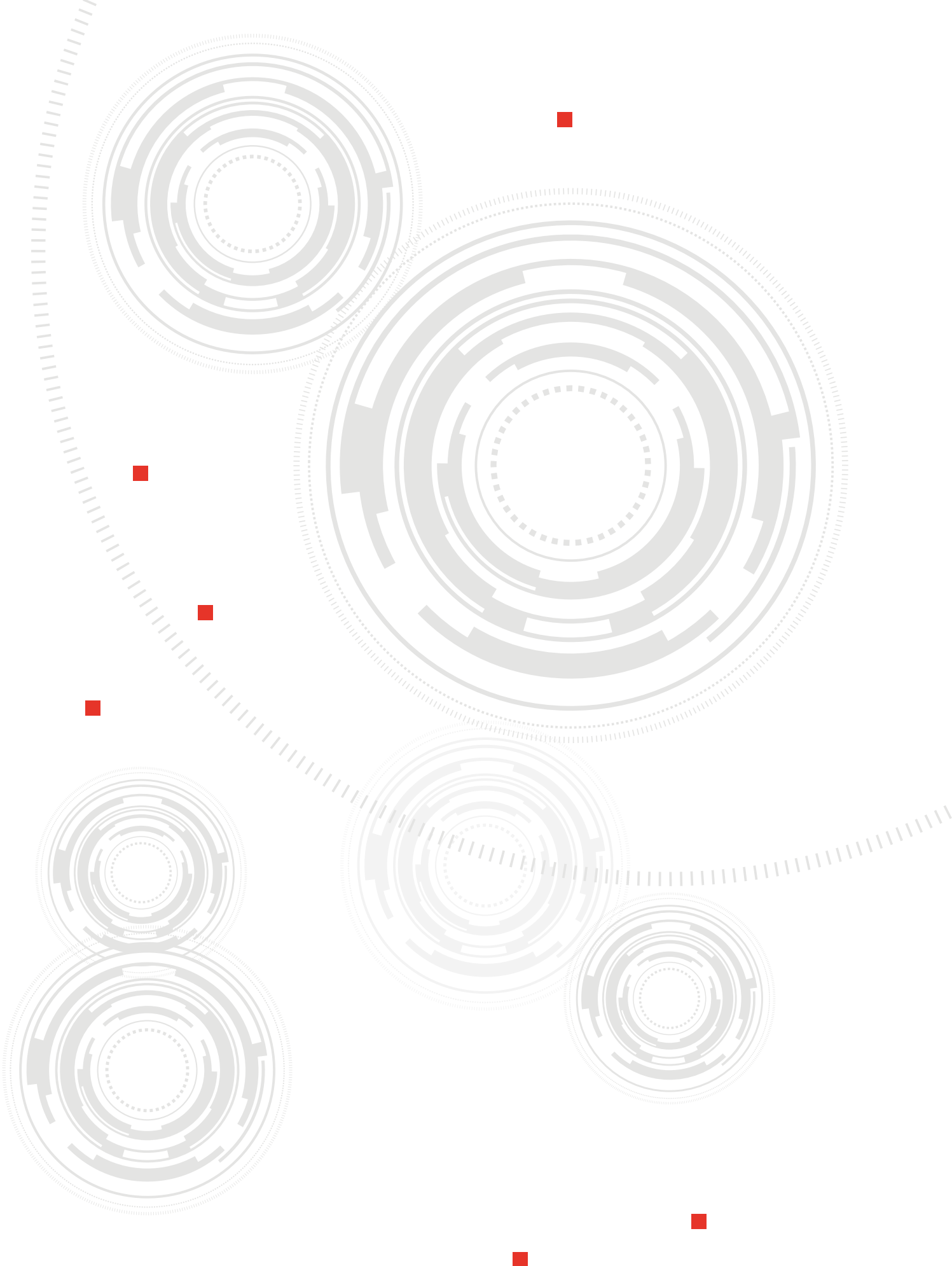
The Energy Agency in the area of district heating issues general acts for exercising public services on the methodology for determining the general conditions for the supply and consumption from the distribution network, the methodologies for the preparation of the tariffs for the supply and consumption from the distribution network, and it issues approvals to the system operation instructions regarding a distribution network for the heat supply.

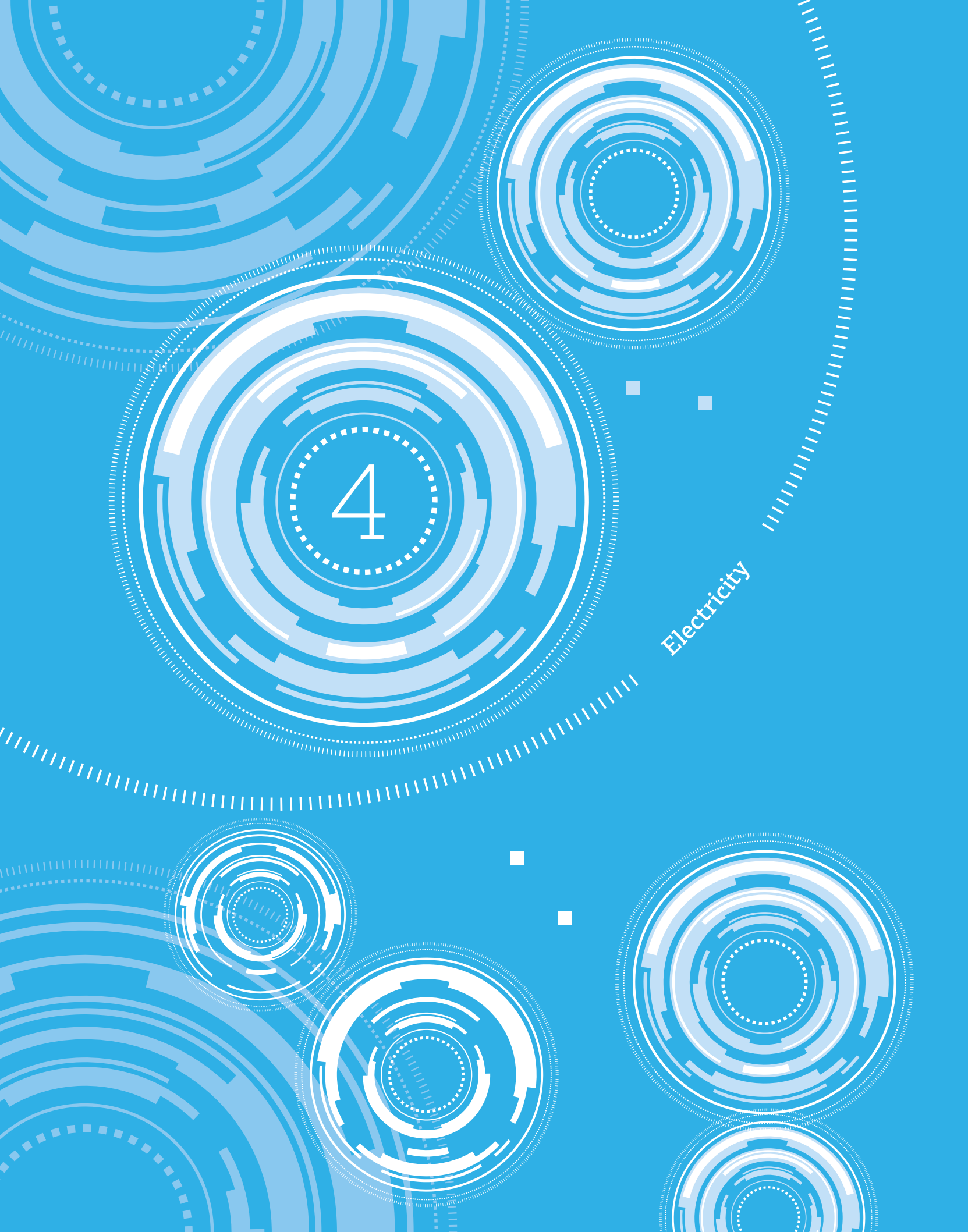
In 2010 the Energy Agency prepared a draft version of the Act amending the Act Establishing the Methodology for Determining the General Conditions for the Supply and Consumption from the Distribution Network, and submitted it to the public consultation. When preparing the draft, the Energy Agency warned the Ministry of Economy that in its opinion by deleting the consent of local authorities to the general conditions, as defined in 2010 in adopted amendment of the Energy Act, the control over the performers of heat distribution is reduced.

In 2010 the Energy Agency issued 3 approvals to the system operation instructions for a district-heating distribution network. It also prepared properly updated or modified generic document of system operation instructions and published it on its website to help distribution companies; amendments were prepared in the line with a novel of the Energy Agency which changed the terminology in the area of district heating.

The Energy Agency keeps the record of complaints against decisions to grant or refuse consent to a connection to the district-heating distribution network or other gas. Municipalities have to inform the Energy Agency about the number of these complaints. Only one municipality sent a notice, all the others sent information after the formal appeal. On the basis of the received information the Energy Agency established that there were no complaints against the decisions, which are decided upon the mayor of the municipality.

By February 15, the Energy Agency did not receive any report on the total amount of supplied heat for the previous year; the suppliers that perform district heating or supply with any other gas from the distribution network as individual market activity are required to submit such report to the Energy Agency.





4

Electricity

## 4.1 General information

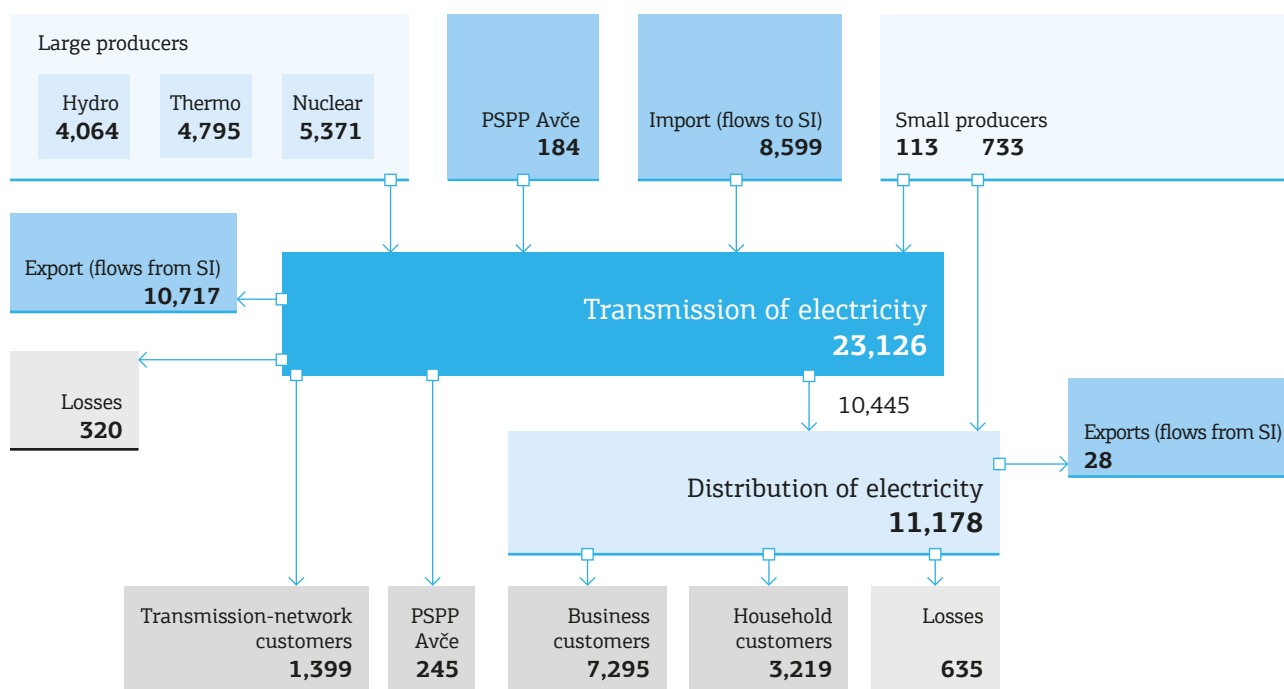
In 2010 the electricity consumption in Slovenia amounted to 12,158 GWh of electricity (excluding the losses in the network). In comparison with 2009, the consumption increased by 919 GWh, or 8.2%. The customers connected to the transmission networks used 1399 GWh of electricity, or 26,7% more than the previous year. The consumption of the customers connected to the distribution network increased by 3.7%, and amounted to 10,515 GWh. The consumption was higher, namely 245 GWh, because of the hydroelectric pumped-storage power plant Avče (hereinafter referred to as PSPP Avče) which pumped water for accumulation. PSPP Avče started trial operation in March 2010. The electricity losses in the transmission and distribution networks amounted to 955 GWh, or 7.2% of transmitted electricity, including transit, export and import of electricity.

In 2010 a total of 15,260 GWh of electricity was generated in Slovenia, which was 53 GWh more than in 2009. The hydroelectric power plants generated 4248 GWh of electricity, which was 29 GWh less than in the previous year. The thermoelectric power plants generated 4907 GWh of electricity, or 121 GWh more than in 2009. The Krško Nuclear Power Plant generated 5371 GWh of electricity, which was 82 GWh less than in the previous year. Production of electricity of the small producers (with production units less than 10 MW) compared with production in 2009 increased for 69 GWh and was 846 GWh. In 2010 the domestic demand was completely covered from the production sources in the Republic of Slovenia, including losses in the network, and taking into account the 50-percent share of installed capacity of the Krško Nuclear Power Plant, which belongs to Slovenia. The surpluses of electricity were exported. Through the transmission and the distribution networks 10,745 GWh of electricity was exported, and imported 8599 GWh of electricity in 2010. Above mentioned amounts are taken from the balance sheets of the transmission and distribution networks operators.

The intensive investments in new production facilities on RES and for CHP reflect in changed structure of electricity production. In 2010 it amounted to 34% of the whole production. The power plants using fossil fuels contributed about 31% of total production and Krško Nuclear Power Plant 35%.

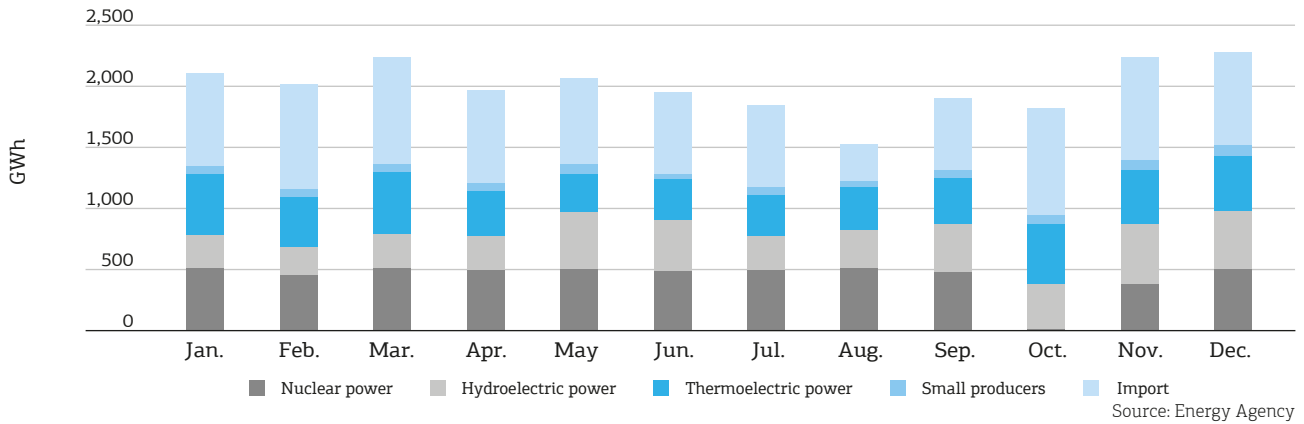
The highest hourly load was noted in December. It amounted to 1940 MW.

**Figure 1: Balance of electricity production and consumption in 2010 in GWh**



Source: Energy Agency

**Figure 2: Structure of monthly electricity production**



**Table 1: Electricity production and import in 2009 and 2010 - in GWh**

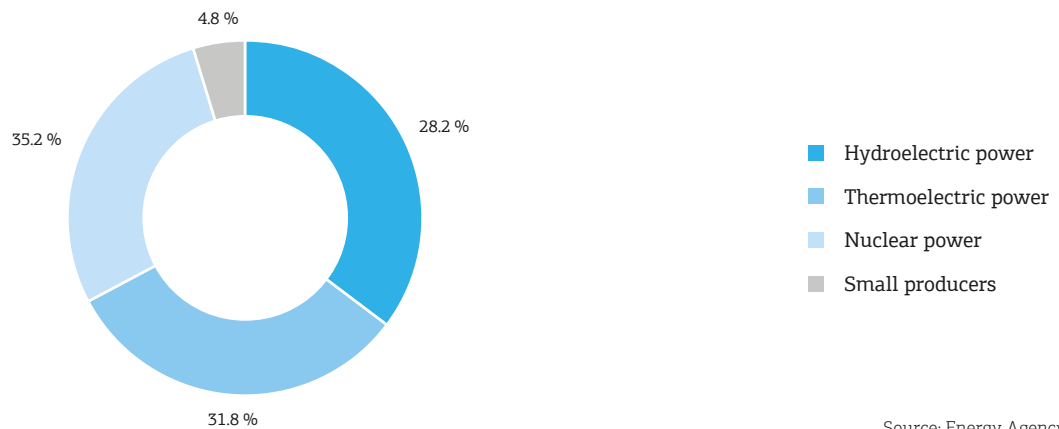
	2009	2010	Index 10/09
Hydroelectric power plants	4,227	4,305	101.8
Thermoelectric power plants	4,700	4,851	103.2
Nuclear power plant	5,453	5,371	98.5
Small producers*	777	790	101.7
<b>Total production in the RS</b>	<b>15,207</b>	<b>15,317</b>	<b>101.1</b>
Imports	7,780	8,599	110.5
<b>Skupaj</b>	<b>22,987</b>	<b>23,916</b>	<b>104.3</b>

\*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 2010**

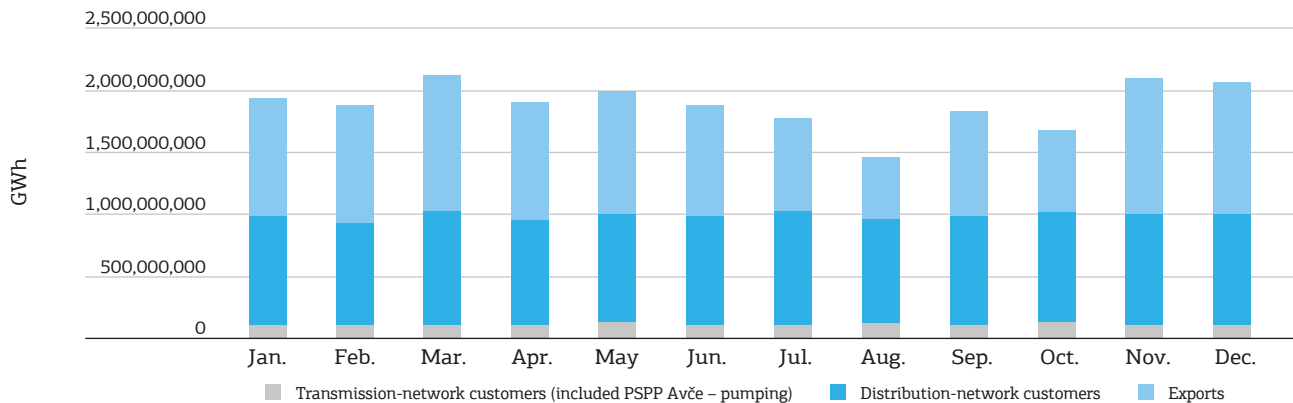


**Table 2: Electricity consumption and export for 2009 and 2010 – v GWh**

	2009	2010	Index 10/09
Business customers on the transmission network	1,104	1,399	126.7
Business customers on the distribution network	6,974	7,295	104.6
Household customers	3,161	3,219	101.8
Consumption of the PSPP Avče	-	245	-
Network losses	843	955	113.3
<b>Total consumption</b>	<b>12,082</b>	<b>13,113</b>	<b>108.5</b>
Exports	10,865	10,745	98.5
<b>Total</b>	<b>23,807</b>	<b>23,858</b>	<b>100.2</b>

Source: Energy Agency

**Figure 4: Fluctuations in electricity consumption in 2010**



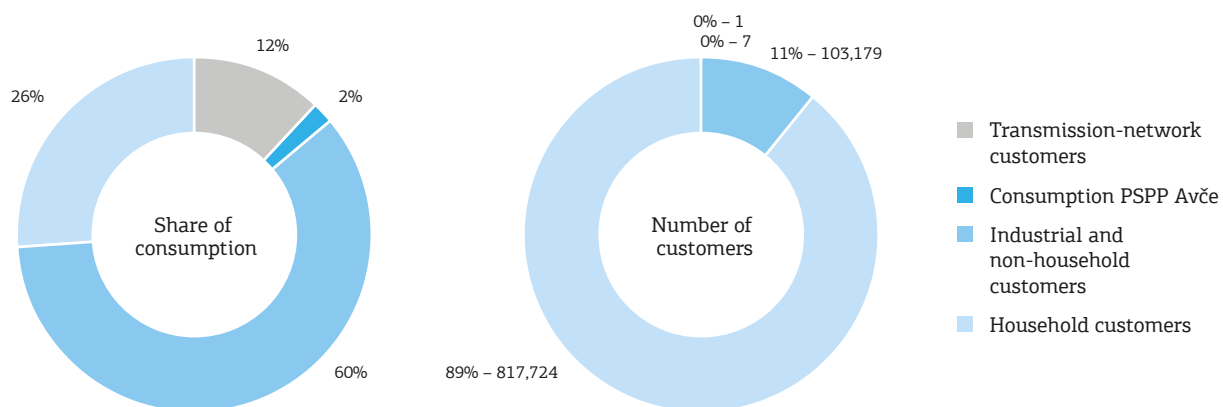
Source: Energy Agency

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

	Number	Consumption in GWh
Transmission-network users	7	1,399
Consumption PSPP Avče	1	245
Business customers on the distribution network	103,179	7,295
Household customers	817,724	3,219
<b>All customers</b>	<b>920,911</b>	<b>12,158</b>

Source: Energy Agency, System operators

**Figure 5: Shares of electricity consumption by consumption type**



Source: Energy Agency, System operators

At the end of 2010 a total of 920,911 electricity customers were connected to the electricity network in Slovenia. In comparison with 2009, in the structure the share of consumption of transmission-network customers increased, from 10 to 12%. The share of consumption of distribution-network customers decreased a little due to start of operating the PSPP Avče.

## 4.2 The regulation

### 4.2.1 The regulation of transmission and distribution activities

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 operation as its single service, with its main office at Hajdrihova 2, Ljubljana ([www.eles.si](http://www.eles.si)) – hereinafter referred to as Eles.

SODO, d. o. o., provides the public service of the distribution system operator as its sole activity, with its main office at Minařikovi ulica 5, Maribor, ([www.sodo.si](http://www.sodo.si)) - hereinafter referred to as SODO.

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

The electricity transmission network is the high-voltage network running from the producers, or from the neighbouring transmission networks, to the distribution network, or to the network users. The Slovenian electricity transmission network is connected with Austria, Italy and Croatia, while there is no interconnection between Slovenia and Hungary. In 2010 the total length of the overhead power lines was 2614 kilometres. The owner of the electricity transmission network is Eles.

The electricity distribution network runs from the transmission network to the end customers. SODO, the distribution system operator, leases the distribution network with a length of 62,960 kilometres. The customers own 867 kilometres of the distribution network. In 2010 SODO became an owner of 36 kilometres of distribution network.



SODO leases:

- 16,332 kilometres of distribution network of Elektro Celje, company for electricity distribution, d. d., Vrunčeva 2a, 3000 Celje, [www.elektro-celje.si](http://www.elektro-celje.si),
- 5,417 kilometres of distribution network of Elektro Gorenjska, company for electricity distribution, d. d., Ulica Mirka Vadnova 3a, 4000 Kranj, [www.elektro-gorenjska.si](http://www.elektro-gorenjska.si),
- 16,257 kilometres of distribution network of Elektro Ljubljana, company for electricity distribution, d. d., Slovenska cesta 58, 1000 Ljubljana, [www.elektro-ljubljana.si](http://www.elektro-ljubljana.si),
- 16,309 kilometres of distribution network of Elektra Maribor, company for electricity distribution, d. d., Vetrinjska ulica 2, 2000 Maribor, [www.elektro-maribor.si](http://www.elektro-maribor.si) and
- 8,645 kilometres of distribution network of Elektra Primorska, company for electricity distribution, d. d., Erjavčeva 22, 5000 Nova Gorica, [www.elektro-primorska.si](http://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.

In 2010 SODO had a leasing contract with TDR Metalurgija, d. d., Tovarniška cesta 51, Ruše, the company that was declared bankrupt, for the electricity infrastructure and equipment.

#### **4.2.1.1 The business operation of the transmission system operator**

In the revision process for 2010, Eles had to change the financial statement for the year 2009, so that the net profit increased to 2.60 million euros. Correction was needed because the subsequent recognition of finance income from dividends. Thus, Eles finished the financial year 2009 with 16.26 million net profit. The financial year 2010 Eles finished with 5.27 million euros net profit, which was 10.99 million less than in 2009.

In 2010 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.

The revenues from the network charge for the transmission network amounted to 58.93 million euros, which was 1.83% less than expected by the Energy Agency in the regulatory framework for 2010. The expected revenues from the ancillary services were 39.73 million euros, and the actual revenues were 40.27 million euros. The actual revenues from the auctions for allocating congested cross-border transmission capacities, together with the revenues from the ITC mechanism, amounted to 34.38 million euros, which was 16% less than in 2009. In 2010, Eles, in accordance with Article 46.a of the Energy Act, decreased, or separate, in its financial statement, part of the revenues from the auctions for the allocations of the CBTCs, and because of that the net profit was lower than in 2009. Separated part of the revenues from the auctions will be in the future spent in accordance with the Article 46.a of the EA and the Regulation 1228/2003 on conditions for access to the network for crossborder exchanges in electricity.

At the end of 2010 Eles had 533 employees, which was a 4.48-percent decrease in the number of staff in comparison with 2009.

#### **4.2.1.2 The business operation of the distribution system operator**

SODO, d. o. o., ended the financial year 2010 with a net profit of 2.19 million euros (according to unaudited financial results), which was 1.33 million euros more than in 2009.

In 2010 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 making a connection, and from other services. The revenues from the average cost for making a connection are intended for financing investments in electricity infrastructure, and are annually recognized as revenue in the amount determined by the fixed depreciation rate.

In the regulatory frame for 2010 the Energy Agency expected 208.52 million euros revenues from the network charge for the distribution network. Due to higher consumption, the revenues amounted to 225.33 million euros, which was 8% more than expected. The revenue from the network charge for the specialised ancillary service was 2.42 million euros.

At the end of 2010 the company had 23 employees, 2 more than in 2009.

#### 4.2.1.3 The business operation of the owners of the electricity distribution infrastructure

In 2010 the owners of the electricity distribution infrastructure generated revenues from selling electricity and services in the market, leasing out the distribution network, providing the services for the distribution system operator and from other services.

**Table 4: Net profit by activity**

In mio EUR

Activities		Elektro Celje	Elektro Gorenjska	Elektro Ljubljana	Elektro Maribor	Elektro Primorska	Total companies
Leasing and services	2009	-4.82	-1.06	-3.79	0.12	-2.12	-11.67
	2010	4.01	1.38	-2.41	2.84	0.99	6.81
	Difference 10/09	8.83	2.44	1.38	2.72	3.11	18.48

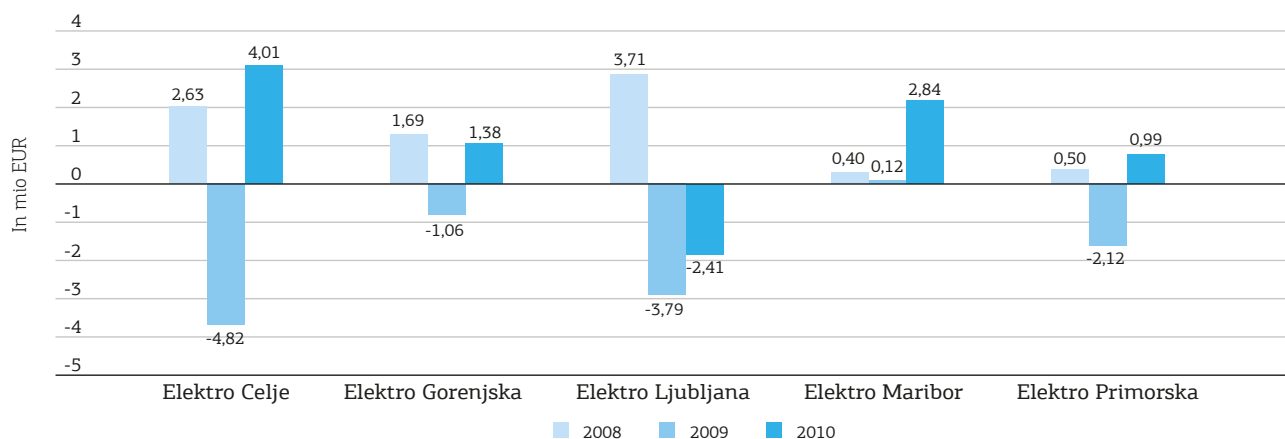
Source: Companies' data (unaudited financial result for 2010)

In 2010 the owners of the distribution infrastructure generated 19.41 million euros of net profit. With leasing of the distribution infrastructure and provision of services for the system operator (rent and services) they generated 6.81 million euros of net profit.

In 2010 all the owners of the distribution infrastructure except Elektro Ljubljana, d. o. o., had a positive net profit relating to the leasing out the distribution network and providing the services. This is partly a result of the revenues from the leasing the distribution network and revenues from services carried out for SODO, and are related to 2009. The above mentioned revenues result from calculations of the deviations from the regulatory framework for 2009. The amount of deviations was agreed in the annex of the contract for 2010.

At the end of 2010 the owners of the distribution infrastructure employed a total of 3311 employees, which was a 2.93-percent decrease with respect to the number of staff in 2009. Leasing and the services had 2458 employees, which was 1.68-percent increase comparison to the previous year.

**Figure 6: Profit from leasing and service activities for SODO**



Source: Companies' data, Energy Agency

#### 4.2.1.4 The investments in the electricity networks

The EA obliges the system operators of the transmission and the distribution network to maintain and develop the network system, provide long-term network capacities and to ensure the security of electricity supply. The legislation expects the system operators to continually, considerably and effectively invest in the development and restructuring of the electricity network.

The owners of the distribution infrastructure allocated for the construction of new and the upgrading of the existing distribution infrastructure, and for other necessary business investments in 2010, a total of 99.5 million euros, which was 23.2% percent less than in 2009, and 44.4% or 79,5 million euros less than it was planned in the development plans for the transmission network for 2009–2018. The investments realization in 2010 did not exceed the Energy Agency's expectations included in the regulatory framework 2006-2008 which was extended and in use also in 2010.

The transmission system operator invested 76.4 million euros in the assets, which was 55.6% more than in the previous year. For 2010 Eles planned investments in a total amount of 86.8 million euros, which was 10.4 million, or 12% more than the value of realized investments in 2010. The investment realisation in 2010 was, in comparison to the regulatory framework 2006-2008, which was extended to 2009, exceeded by 71.3%.

The total value of the investments carried out by the companies involved in the electricity distribution and transmission was 175.9 million euros, which was 1.5% less than in 2009.

**Table 5: Amounts of realised investments in 2009 and 2010**

In mio EUR

	2009	2010			Index		
	Realization	Regulatory framework	Development plan (2009–2018)	Realization	Realization 10/09	Real./Regul. framework	Real./Development plan
Elektro Celje	26.2	20.2	35.1	22.2	84.7	109.8	63.2
Elektro Primorska	18.4	17.8	19.1	13.7	74.5	77.0	71.9
Elektro Gorenjska	16.7	13.5	26.8	13.8	82.6	102.2	51.5
Elektro Ljubljana	46.8	30.4	66.6	22.6	48.3	74.3	33.9
Elektro Maribor	21.3	22.5	30.4	27.1	127.2	120.4	89.1
SODO	0.1		1.0	0.1			9.8
<b>Total distribution</b>	<b>129.5</b>	<b>104.4</b>	<b>179.0</b>	<b>99.5</b>	<b>76.8</b>	<b>95.3</b>	<b>55.6</b>
Elektro Slovenija	49.1	44.6	86.8	76.4	155.6	171.3	88.0
<b>Total</b>	<b>178.6</b>	<b>149.0</b>	<b>265.8</b>	<b>175.9</b>	<b>98.5</b>	<b>118.0</b>	<b>66.2</b>

Source: Companies, Energy Agency

The owners of the distribution infrastructure without SODO allocated 99.4 million euros for the investments in their infrastructure, of which 56.2 million euros, or 56%, were intended for the new electricity facilities, 31.5 million euros, or 32%, were intended for modernisation and upgrading the existing facilities. For the other necessary business investments, they allocated 11.7 million euros, or 12%, of all the allocated funds.

The largest part of the investments was spent for the medium-voltage network, following by high-voltage network, secondary systems and low-voltage network.

Eles invested 76.4 million euros in the electricity transmission infrastructure, of which 54.7 million euros, or 71%, of all the invested funds were spent for the new electricity facilities, and 18 million euros, or 24%, of the funds were spent for modernisation and upgrading the existing facilities. For the other necessary business investments it allocated 3.6 million euros, or 5%, of all the invested funds.

The system operator's difficulties in integrating the electricity facilities for electricity transmission infrastructure in the environment continued, also in 2010. This was also the main reason for the system operators failing to carry out the investments to the extent expected for 2010 in the Development Plan for the Transmission Network for 2009-2018. Eles allocated 86% of the funds for investments in high-voltage network and DTSs, the remaining funds were allocated for secondary and telecommunication systems, control centres and other investments. Among important planned investments we have to mention 2x400 kV Beričevo-Krško transmission line, which is in the process of concluding an easement with landowners, and 2x400 kV Cirkovce-Pince high voltage transmission line, for which the analysis that will serve as a basis for national spatial plan began.

In 2010 the investment on the transmission network in the Divača phase-shifting transformer ended. Phase-shifting transformer enables effective managing of cross-border transmission of electricity across Slovenian power system from East Europe and Austria to Italy. The installation of this transformer can be considered as of the major investments in the Slovenian transmission network over the past 20 years, the total value of the investment amounted to 53.8 million euros.

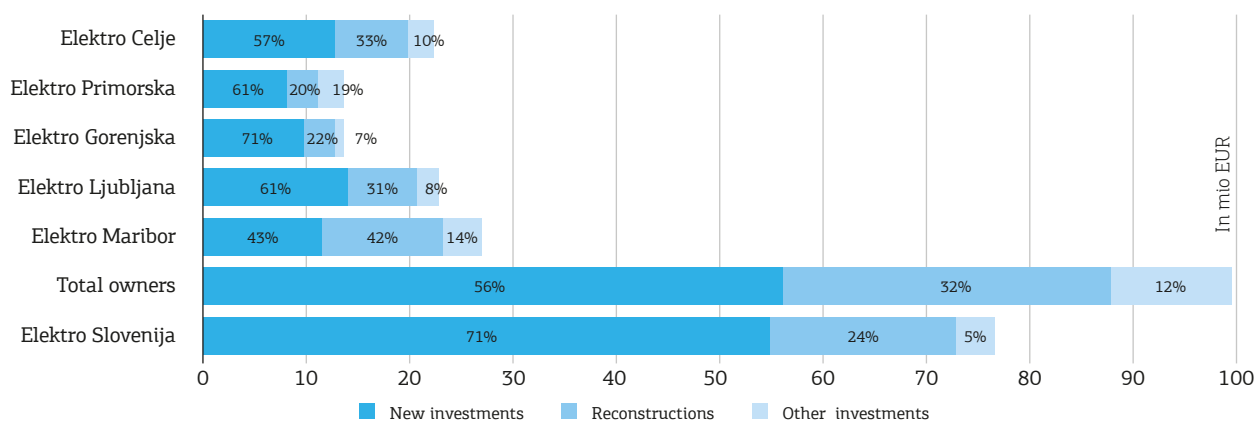
**Table 6: New investments in, and reconstructions of the electricity infrastructure**

In mio EUR

	New investments	Reconstructions	Other investments	Total
Elektro Celje	12.6	7.4	2.3	22.2
Elektro Primorska	8.3	2.7	2.7	13.7
Elektro Gorenjska	9.8	3.0	0.9	13.8
Elektro Ljubljana	13.8	6.9	1.9	22.6
Elektro Maribor	11.7	11.5	3.9	27.1
<b>Total owners</b>	<b>56.2</b>	<b>31.5</b>	<b>11.7</b>	<b>99.4</b>
Elektro Slovenija	54.7	18.0	3.6	76.4
<b>Total</b>	<b>111.0</b>	<b>49.5</b>	<b>15.3</b>	<b>175.8</b>

Source: Companies' data

**Figure 7: Amounts of the investments in, and reconstructions of the electricity infrastructure**

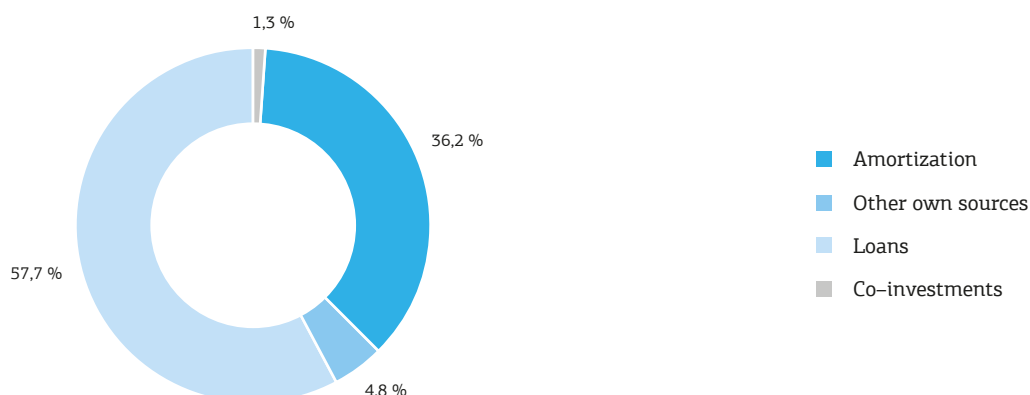


Source: Companies' data

The owners of the electricity infrastructure financed most of the investments in 2010 taking out bank loans amounting to 57.3 million euros, or 57.7% of all the investments, and by using amortisation costs of 36.1 million euros, or 36.2% of all the investments. They obtained the rest of the funds by using other sources of their own amounting to a total of 4.8% of all the investments, and with the co-investments of the network users, which amounted to 1.3%.

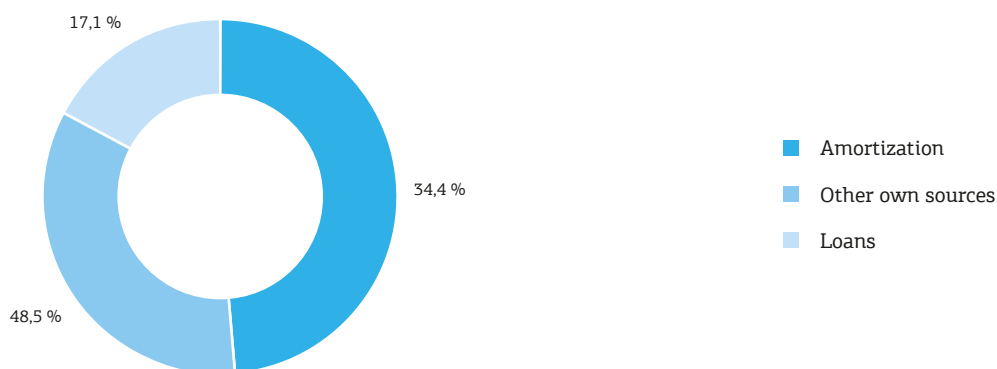
Eles financed 48.5% of the investments by using other sources in the amount of 37.1 million euros, amortization costs to a total amount of 26.3 million euros, or 34.4%, and 17.1% by taking out bank loans amounting to 13.1 million euros.

**Figure 8: Investments sources of the owners of the electricity distribution infrastructure**



Source: Companies' data

**Figure 9: Investments sources of the transmission system operator**



Source: Eles

#### 4.2.1.5 The long-term development of the electricity network

The transmission and distribution system operators have to biennially prepare ten-year development plans for the electricity networks that are evaluated and approved of by the ministry responsible for energy. The latest upgrading of the development plans for the transmission and distribution networks was made for 2009–2018. 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 this way the plans determine the expected physical and financial extent of the investments in new facilities and in upgrading the existing electricity facilities on the transmission and distribution networks.

In the development plans for 2009–2018, the expected investments in the electricity infrastructure for the transmission and distribution amount to 2,401 million euros, of which 767 million euros are allocated for the transmission network, and 1,634 million euros are allocated for the distribution network.

Investments in electricity distribution infrastructure will reach its peak in 2011, and thereafter gradually decline. The volume of investments in transmission network is expected to decline after 2011, and reach its peak again in 2014.

It should be mentioned that the implementation of the development plan for the period 2009-2018 is largely affected by the economic crisis, as the volume of new investments in industrial and construction sector fell significantly. Investments are hindered mainly because of the difficulties associated with the placing of the line facilities in the environment (especially high-voltage lines).

In coming years, SODO will invest in advanced metering infrastructure, for which some pilot projects were carried out. 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 network has to adapt to the increased connection of new disperse generation from renewables and cogeneration to LV and ML network. The existing network was not planned for such operation. 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 carried out to identify those parts of the network which are most suitable for the connection.

In the period up to 2018 major investments planned are 2x400 kV Beričevo-Krško transmission line, transmission line Divača-Kleče-Beričevo-Podlog-Cirkovce – switch from 220 kV to 400 kV, and 2x110 kV Beričevo-Trbovlje transmission line. International lines with Italy are also planned, namely 2x400 kV Okroglo-Videm, and with Hungary - 2x400 kV Cirkovce-Pince transmission lines. For all these investments, especially for the 400-kV lines, is typical that the period of construction extends 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 for Brestanica and Moste, and reconstructions of existing DTSs are also planned.

#### 4.2.1.6 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, 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 determine 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 2010 the company generated (unaudited financial results) 3.63 million euros of revenues, which were, in comparison with 2009, higher by 15.4%. The expenditure amounted to 2.74 million euros and was, in comparison with the previous year, lower by 8.7%. The net profit was 0.66 million euros. The market operator generated 0.42 million euros of the net profit, and the net profit of the Centre of Support was 0.22 million euros. At the end of the year the company had 29 employees.

## 4.2.2 The unbundling of services

Legal entities that carry out more than one energy-related activity in the area of supply with electricity, and in addition to an activity in the area of supply with electricity, also another activity (either another energy-related activity or market-based activity) have to provide for, in accordance with Energy Act, 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.

The owners of the electricity-distribution infrastructure prepared separate accounts for the activity which is carried out for SODO (leasing and services), energy-related activities (sale of electricity to eligible customers) and other market-based activities. Separate accounts for the activities carried out for SODO were prepared on the basis of the relevant contracts.

## 4.2.3 The network charges for the transmission and distribution networks

### 4.2.3.1 The mode of setting the network charges for the transmission and distribution networks

The Energy Agency sets the network charges for the use of electricity networks, separately for the transmission network, the distribution networks, and for the ancillary services. At the end of 2009 the Energy Agency amended the 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.

By amending the act the Energy Agency extended the validity of the tariffs for transmission and distribution networks, which were applied on 31 December 2009, and determined balanced revenue from the network charge for 2010.

The Energy Agency established the balanced revenue from the network charge for 2010 by increasing the balanced revenue from the network charge for transmission and distribution network for 2008 with the difference in the costs of electricity losses in the network. Costs of network losses for 2010 were calculated on the basis of planned amount of electricity consumption in 2010 and recognized price for electricity losses in the network, which was set at 49 EUR/MWh.

#### 4.2.3.1.1 The charging for the network charge

To determine the charging for the network charge, the Energy Agency uses a nontransaction 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 Energy Agency takes the gross approach with respect to calculating the network charges for the transmission and distribution networks.

#### 4.2.3.1.2 The setting of the network charge

The methodology for setting the network charge is based on the price-cap method, taking into account the assumption that the revenue should be sufficient to cover the eligible costs for a smooth provision of the tasks of a system operator. The limit for a justified increase in the prices is expressed by the ratio of the increased prices to the eligible revenue.

The eligible costs of system operator are covered by the network charge and with other revenues arising from the provision of a regulated activity.

The Energy Agency determine the eligible revenues separately for the network charge for the transmission network, the network charge for the distribution network, and the network charge for ancillary services.

When setting the network charges from the above paragraph, the Energy Agency takes into account also other incomes related to the regulated activities. Other incomes are the revenues from charging for the average costs for making a connection, the compensations received from insurance companies relating to damages, the revenues from the telecommunications services, the revenues relating to the remuneration for the use of cross-border transmission capacities of the interconnection lines, and other revenues.

#### 4.2.3.2 The supply quality

Due to reducing the costs of monopoly services such as the transmission and distribution of electricity, the quality of the electricity supply can also become 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.

In 2010 the vast majority of activities was aimed at updating the Act Concerning the Submission of Data about the Quality of the Electricity Supply. By this act, the uniform rules for submitting the data and requirements for monitoring the commercial quality, the supply continuity and voltage quality on monthly and yearly basis were given. In the field of data submission, the Energy Agency began an overhaul of the web application for reporting.

In 2010 the Energy Agency continued to introduce regulation based on the quality of the electricity supply. The Energy Agency carried out its regulation in the simplest way – by making the following data publicly available:

- quality indicators for individual services (commercial quality),
- indexes of the system's average interruption duration and interruption frequency,
- the number of complaints relating to the voltage quality.

The system operator has to prepare annual reports on all three types of quality and submit them to the Energy Agency.

On the basis of the data provided, the Energy Agency analysed the quality of supply and, in line with its responsibilities, took measures.

##### 4.2.3.2.1 The commercial quality

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

On the basis of the data provided by the owners of the distribution networks the Energy Agency can conclude that the level of commercial quality is mostly only assessed, and rarely measured. The companies that have certificate of quality management system ISO 9000/9001, do not monitor these parameters of commercial quality in accordance with the above mentioned act, but they systematically monitor some other internal parameters.

##### 4.2.3.2.2 The supply continuity

In 2010 the following standard indicators were used for the control of the supply continuity:

- SAIDI (the System Average Interruption Duration Index)
- SAIFI (the System Average Interruption Frequency Index)

It is clear from the International Electro-technical Commission's definition that the above indicators refer to interruptions longer than three minutes. These long-term interruptions are con-



trolled on the MV-network and are divided into the forecasted and unforecasted interruptions. The latter are further divided, with respect to their causes, into internal, external and force-majeure interruptions. The companies calculated the SAIDI and SAIFI indicators for different observation levels, such as the MV-output of a DTS/DS, different MV-output types (urban, rural, and mixed) and the company level. On the basis of the collected data the Energy Agency calculated both indicators at the national level.

#### 4.2.3.2.3 The voltage quality

In 2008 the technical standard SIST EN 50160:2001 (Voltage Characteristics of Public Distribution Networks), which sets minimum standards for the voltage quality, was adopted. In 2010 the standard was updated, so the latest version of the standard is EN 50160:2010. The document sets minimum standards for the voltage quality. The voltage tolerance band at the supply terminals was already changed from 230 V + 6% to 230 V + 10%; the standard criteria were mitigated in the previous version.

In line with the legislation, companies 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.

#### 4.2.3.2.4 The supply quality at the distribution level

##### The supply continuity

In 2010 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. The SAIDI indicators for unforecasted interruptions caused internally from 2008-2010, sent by the owners, are shown in table below.

**Table 7: SAIDI by year- 2008 in 2010 unforecasted interruption caused internally**

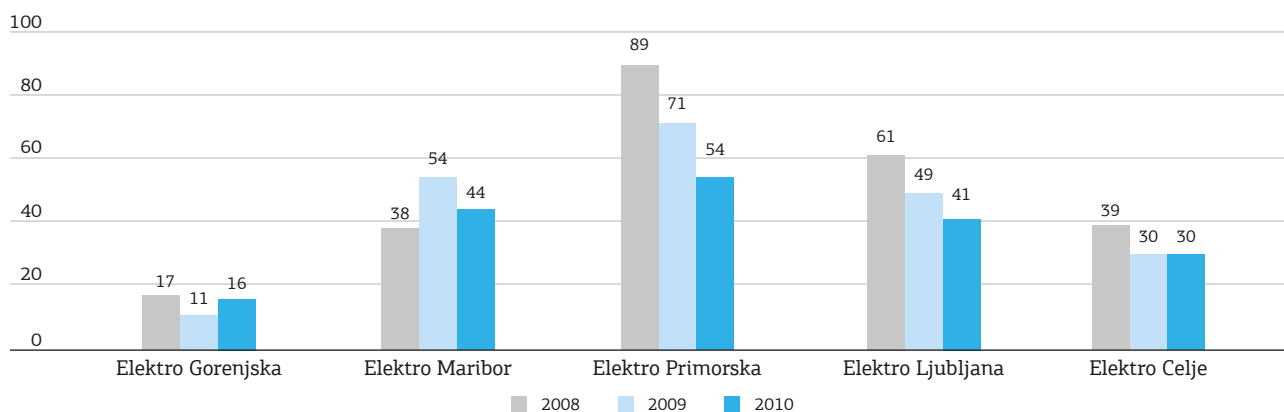
Company	SAIDI - interruptions caused internally		
	2008	2009	2010
Elektro Gorenjska	17	11	16
Elektro Maribor	38	54	44
Elektro Primorska	89	71	54
Elektro Ljubljana	61	49	41
Elektro Celje	39	30	30

Source: Energy Agency

Figure 10 shows the SAIDI between 2008 and 2010 for unforecasted long-term interruptions (caused internally). We can see downward trend of SAIDI, which means that the supply quality is higher in a sense of shorter interruptions.

On the basis of the SAIDI and SAIFI for 2010 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 8. Table 9 also shows the SAIDI and SAIFI indicators that relates to all interruptions which namely affect a customer. At calculating these indicators, as, in addition to internal interruptions, the external interruptions and force-majeure interruptions are included; the forecasted interruptions are taken shown separately.

**Figure 10: SAIDI for period 2008 - 2010 unforecasted interruption caused internally**



Source: Companies' data

**Table 8: SAIDI and SAIFI at the national level for period 2008–2010 (unforecasted)**

Indicators / causes	Unforecasted interruptions					
	2008		2009		2010	
	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
SAIDI – national level [min/cust.]	51	116	46	133	39	81

Source: Companies' data

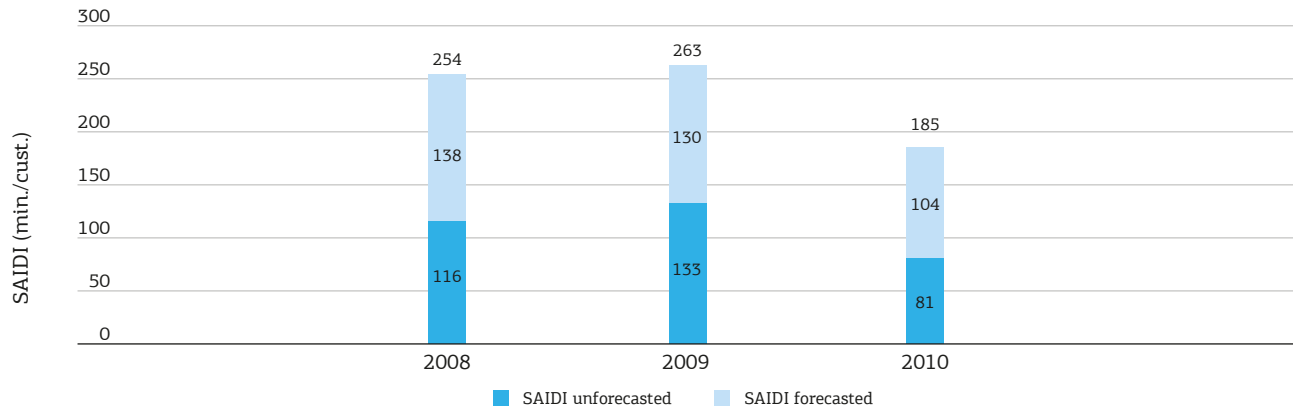
**Table 9: Indicators SAIDI in SAIFI at national level from 2008–2010 (forecasted interruptions and all interruptions)**

Indicators	Forecasted interruptions			All interruptions		
	2008	2009	2010	2008	2009	2010
SAIFI - national level [interr./cust.]	1.09	1.05	0.85	3.80	3.44	2.65
SAIDI - national level [min/cust.]	138	130	104	254	264	185

Source: Companies' data

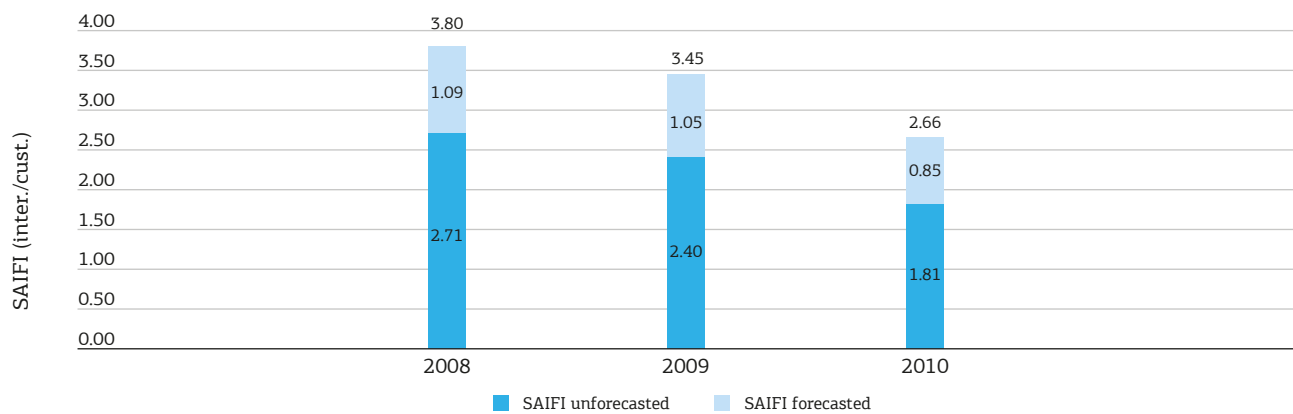
SAIDI and SAIFI for unforecasted and forecasted long-term interruptions on the national level for the period 2008-2010 are shown in figures 11 and 12.

**Figure 11: Indicator SAIDI for unforecasted and forecasted interruptions for the period 2008–2010 at the national level**



Source: Companies' data

**Figure 12: Indicator SAIFI for unforecasted and forecasted interruptions for the period 2008–2010 at the national level**

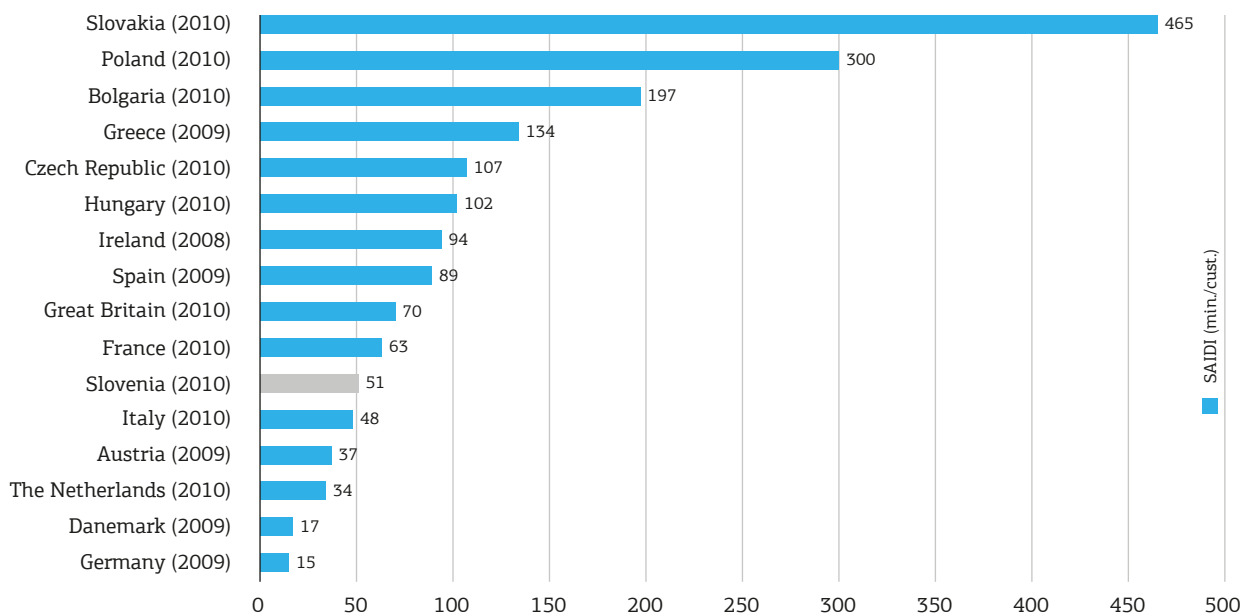


Source: Companies' data

The observed three-year period 2008–2010 shows that the indicator SAIFI lowered significantly, and after a slight increase in 2009, the value of indicator SAIDI improved in 2010. Thus, at the end of 2010, an average Slovenian customer was interrupted 2.5 times, to a total of just over 3 hours.

Figure 13 shows the available data relating to the supply continuity in some EU countries for 2008, 2009 and 2010. A comparison between the levels of supply continuity in Slovenia for 2010 and the other (SAIDI indicators) with other EU members puts Slovenia in the middle European continuity group.

**Figure 13: Average duration of unforecasted interruptions of electricity supply per customers in some European countries (without force-majeure interruptions)**



Source: CEER – 5<sup>th</sup> Benchmarking report

### The commercial quality

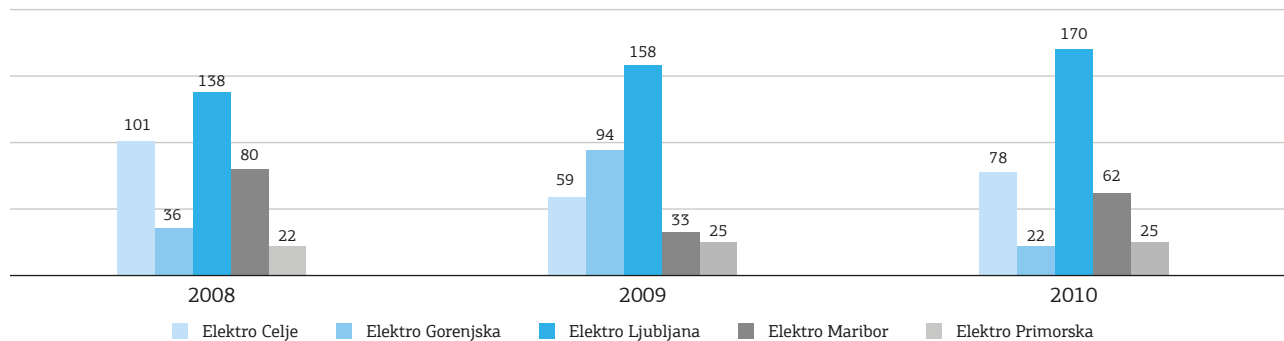
In 2010 distribution monitored the commercial-quality parameters differently, so that the comparison of data is due to differences difficult. In general they monitored some of the parameters of the commercial quality, but they were aware of services whose quality is specified with response times in other legislation. The Energy Agency treats them as guaranteed commercial quality standards.

### The voltage quality

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 (Figure 14); the trend does not reflect the increase or decrease.

**Figure 14: Number of all complaints relating to voltage quality for 2008–2010 by company**



Source: Companies' data

The three-year period 2008-2010 reflects a slight decline of the share of justifiable complaints relating the supply quality. The number of complaints (all and justifiable) is given in Table 10.

**Table 10: Number and shares of complaints relating the supply quality for 2008–2010**

Company	2008			2009			2010		
	All complaints	Number of justifiable complaints	Share of justifiable complaints	All complaints	Number of justifiable complaints	Share of justifiable complaints	All complaints	Share of justifiable complaints	Share of justifiable complaints
Elektro Celje	101	61	60.4%	59	49	83.1%	78	59	75.6%
Elektro Gorenjska	36	22	61.1%	94	77	81.9%	22	9	40.9%
Elektro Ljubljana	138	86	62.3%	158	98	62.0%	170	110	64.7%
Elektro Maribor	80	72	90.0%	33	20	60.6%	62	47	75.8%
Elektro Primorska.	22	19	86.4%	25	16	64.0%	25	17	68.0%
<b>Total</b>	<b>377</b>	<b>260</b>	<b>69.0%</b>	<b>369</b>	<b>260</b>	<b>70.5%</b>	<b>357</b>	<b>242</b>	<b>67.8%</b>

Source: Companies' data

#### 4.2.3.2.5 The voltage quality of the transmission network

Eles is obliged to carry out all the tasks necessary for safeguarding the service quality of the transmission system operator. The commercial quality, which defines the relationships between the producers, connected to the transmission network, and distribution companies and large customers, determine general business relations between them and the system operator. In 2010 the Energy Agency did not monitor the commercial quality. 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. The control of the voltage quality on the transmission network is carried out with a continual monitoring of the voltage quality at the connection points between the transmission and distribution networks, the producers and large customers. 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.

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 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. This fluctuation is transferred to the distribution network and it is detected, by the human eye, as the flickering of the light bulbs. The most extensive flicker is caused by the Jesenice Steelworks. In 2010 flicker was perceived throughout the Gorenjska Region and in some Ljubljana nodes. A minor flicker was detected in Koroška Region because of arc furnaces in the Ravne Ironworks. The Štore Ironworks is in the area of the short-circuit power (DTS Podlog), and for this reason this flicker exceeds the limit value at fewer node points.

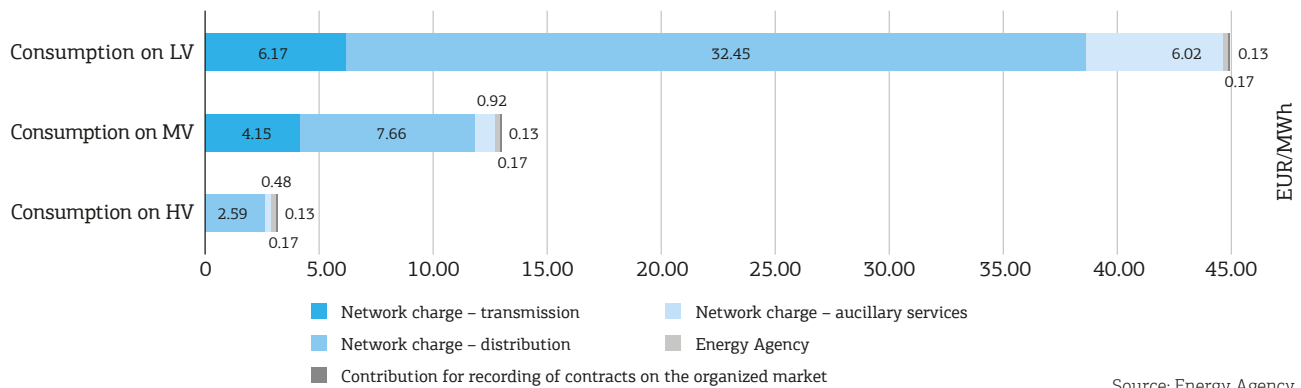
Some minor flickers take place in the areas where arc furnaces do not operate and are caused by regular maintenance work on the networks, storms or other weather phenomena.

### 4.2.3.3 The prices for the use of electricity networks

Electricity customers pay the price for the use of the networks to the system operator with respect to their classification in the customer groups, and with respect to their electricity consumption. The price for the use of an electricity network consists of the network charge for the transmission and distribution networks, the network charge for ancillary services, and the supplements used for covering the costs of the Energy Agency's operation, and recording the concluded contracts for electricity supply at Borzen (excluding the costs for the operation of the Centre of Support at Borzen).

The Energy Agency sets the network charge that is used to cover the eligible costs for the operations of the electricity networks, and the investments in the transmission and distribution infrastructure, as well as the price for the ancillary services. The government sets the supplements.

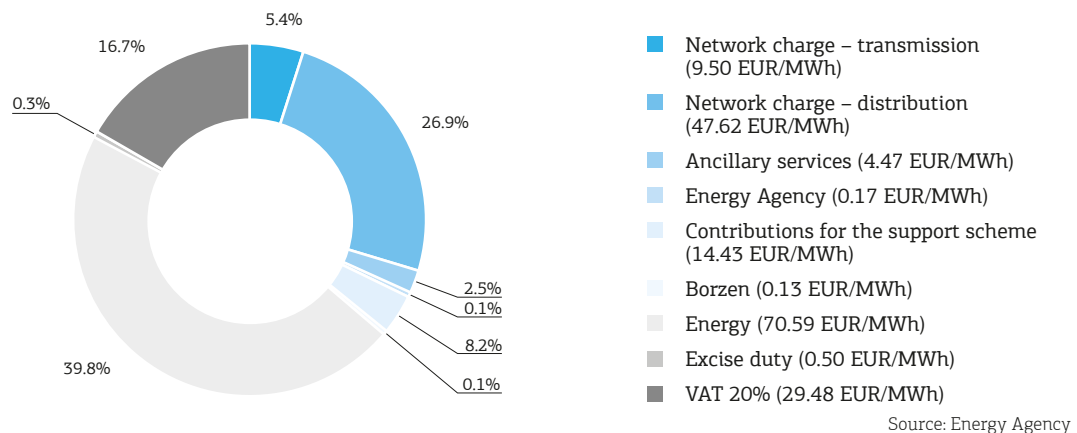
**Figure 15: Average values of the elements included in the use-of-network price by voltage level**



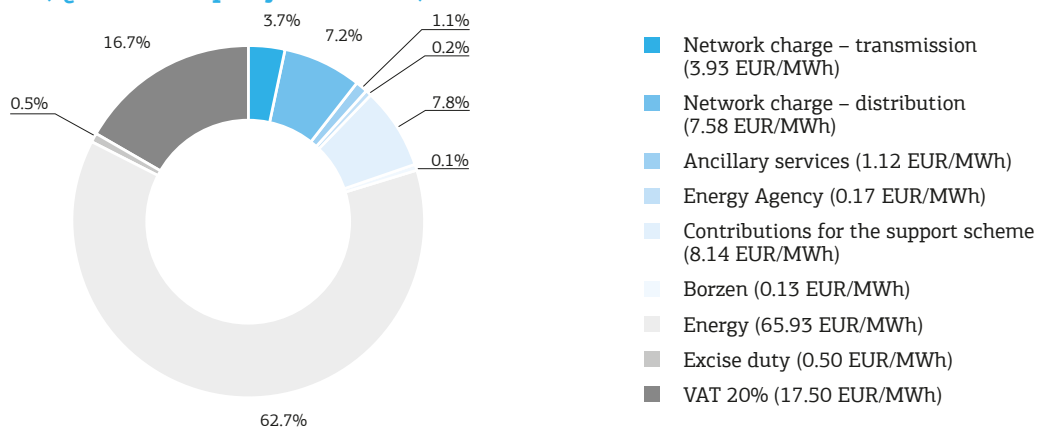
Customers were paying different prices for the use of networks according to their classification in the customer group (voltage level, consumption profile). The average price for the use of the networks in Slovenia, taking into account all the customers by customer group, was 27.4 EUR/MWh. The customers connected to the low-voltage network were, on average, paying 45 EUR/MWh for the use of the network, the industrial customers connected to the medium-voltage network were paying 13 EUR/MWh, and the customers connected to the high-voltage network were paying 3.4 EUR/MWh on average.

Figures 16, 17 and 18 show the ratios of the price elements and the shares of the elements included in the use-of-network prices for typical industrial customers.

**Figure 16: Shares of the elements included in the final electricity price for a typical industrial customer (I<sub>b</sub> – 50 kW, 50 MWh)**

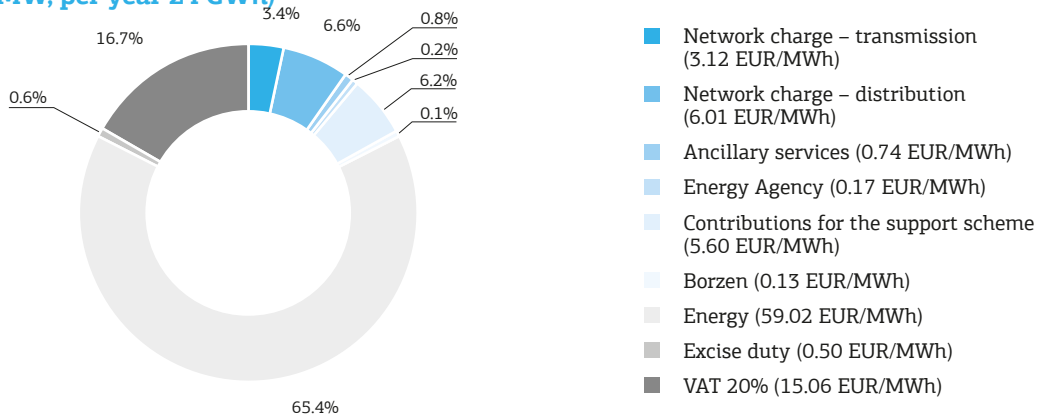


**Figure 17: Shares of the elements included in the final electricity price for a typical industrial customer ( $I_e$  – 500 kW per year 2 GWh)**



Source: Energy Agency

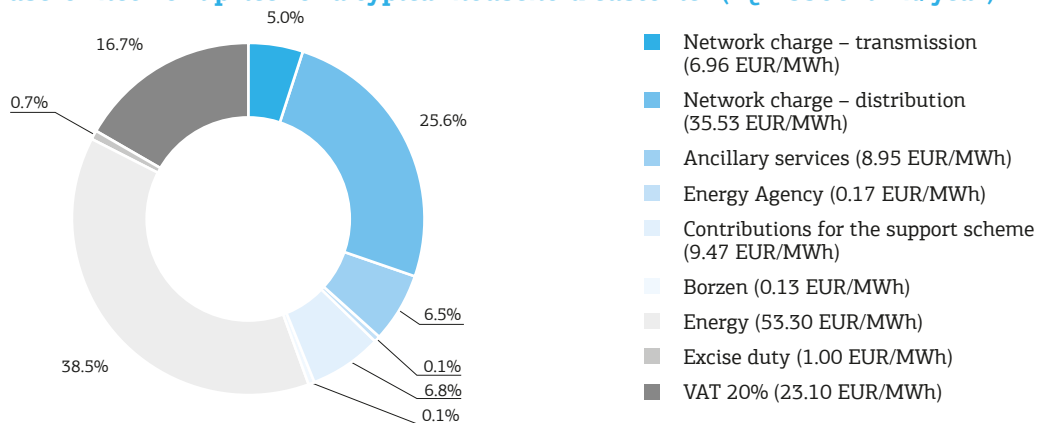
**Figure 18: Shares of the elements included in the final electricity price for a typical industrial customer ( $I_g$  – 4 MW, per year 24 GWh)**



Source: Energy Agency

The use-of-network price in 2010 did not change in comparison with 2009. For a typical industrial customer  $I_b$  was 61.89 EUR/MWh, for a typical customer  $I_e$  12.93 EUR/MWh, and for a typical customer  $I_g$  10.17 EUR/MWh. In the structure of the electricity price for industrial customers, the price for energy was the prevailing fraction.

**Figure 19: Shares of the elements included in the final electricity price, and shares of the elements in the use-of-network price for a typical household customer ( $D_c$  – 3500 kWh/year)**



Source: Energy Agency

In 2010 the use-of-network price for  $D_c$  was 51.74 EUR/MWh.

#### 4.2.4 The allocation of cross-border transmission capacities and the congestion-management mechanisms

The allocation and the use of the cross-border transmission capacities (hereinafter referred to as CBTCs) in the EU are regulated by the Regulation 1228/2003 on the Conditions for Access to the Network for Cross-Border Exchanges in Electricity (hereinafter referred to as Regulation 1228/2003). An integral part of Regulation 1228/2003 is the Congestion Management Guidelines (hereinafter referred to as guidelines). The system operators (hereinafter referred to as the TSOs) in individual countries are responsible for the operations in this area. The Regulation 1228/2003 stipulates the basic principles relating to congestion management, including the allocation of the rights to use the CBTCs, and the implementation of the operational measures required for congestion management. Among other things, Regulation 1228/2003 requires the mandatory use of the market-based method for allocating the rights to use the CBTCs, so the explicit and implicit auctions are currently used in Europe.

Throughout 2010 the TSO held auctions for the capacities at the Slovenia-Italy border, in the direction to Italy, at the Slovenia-Austria border, in the direction to Austria, and at the Slovenia-Croatia border, in both directions. The Italian TSO called Terna held auctions at the Slovenia-Italy border, in the direction to Slovenia, and the Austrian TSO called APG held auctions at the Slovenia-Austria border, also in the direction to Slovenia. In this way, Slovenia introduced the basic coordinated auctions at the borders with the two Member States. At the border with Croatia, the previous method was used, according to which each of the bordering countries at an individual border held auctions for both transmission directions to the extent of 50% of the total available CBTCs. The TSOs then independently allocated half of its total capacity.

At the Slovenia-Italy border Eles held annual, monthly and daily auctions. The Italian TSO held the same auctions for the opposite direction.

The Table 11 shows the allocated CBTCs, with the revenues and the price of allocated MWh.

**Table 11: Review of the allocated CBTCs and the revenues from the auctions by borders**

Border	Allocated (MWh)	Revenue (EUR)	Price for allocated CBTCs (EUR/MWh)
SI-IT	2,875,655	45,786,912	15.92
IT-SI	443,257	14,044	0.03
SI-AT	11,812,269	787,978	0.07
AT-SI	5,267,844	1,323,917	0.25
SI-HR	4,907,349	108,756	0.02
HR-SI	3,590,057	3,771,050	1.05

Source: Eles

It is clear from the table that, in 2010, 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 2010 the transmission direction Austria—Italy generated the largest revenue, mainly because of different prices of electricity on the wholesale markets of Slovenia and Italy. Compared with 2009, the capacity value from Slovenia to Italy increased from 12.55 EUR/MWh to 15.92 EUR/MWh. At the same time the capacity value from Austria to Slovenia decreased from 3.92 EUR/MWh in 2009 to just 0.25 EUR/MWh. New facilities in the Austrian transmission network are the reason for a significant increase of



the available CBTCs from Slovenia to Austria, which decreased the price difference between Austrian and Slovenian wholesale market. Consequently, higher price difference occurred between the Italian and Slovenian market, and the price for CBTCs in directions was higher. Slightly higher price had CBTCs in the direction from Croatia to Slovenia. With respect to the revenues listed in the table, it has to be pointed out that all the revenues generated at the borders with Austria and Italy are divided into halves, so that the Slovenian TSO is entitled to a half of the revenues, while the other half belongs to the Austrian or Italian TSO. On the other hand, the revenues from allocating the CBTCs at the Croatian border belong, for both directions and in their entirety, to the Slovenian TSO.

Since 2006 Slovenia has been involved in the regional initiative known as the European Regulators Group for Electricity and Gas (ERGEG). Because of its geographical position, Slovenia is included in three regional markets for electricity – Central-Eastern Europe, Central-South Europe and 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 the Regulation 1228/2003. The details on the developments in the regions are given in section 4.3.1.8 – The degree of electricity-market integration with the neighbouring countries.

## 4.3 The market-based activities and competition

### 4.3.1 The production and the wholesale market

Since the beginning of the market opening, all the companies for electricity production have, freely and independently of the system operators, traded in Slovenia, and the common European electricity market. As a rule, the production companies operate in the wholesale market, where, in addition to them, traders and electricity suppliers are active as well. Foreign electricity traders also operate in the Slovenian wholesale market, while domestic traders and electricity producers are accessing foreign markets through the Slovenian market.

#### 4.3.1.1 The production of electricity

In 2010 the following companies operating large facilities with a capacity of over 10 MW were active in the electricity-production market:

- 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),
- Hidroelektrarne na spodnji Savi, d.o.o. (HESS),
- Termoelektrarna Brestanica, d. o. o. (TEB),
- Nuklearna elektrarna Krško, d. o. o. (NEK) in
- 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.

Companies DEM, SENG, TEŠ, TET and HESS were operating within the group known as Holding Slovenske elektrarne, d. o. o., (the HSE). The HSE including the above production capacities represented the first energy pillar in the wholesale market. Within the balance group of GEN energija, d. o. o., forming the second energy pillar in the wholesale market, the SEL, TEB and NEK.

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. In recent years the number of

small solar power plants has increased significantly, mainly because of the drop in the prices for photovoltaic modules, the relatively favourable purchasing prices, and the operational support for the electricity generated by small solar power plants. The number of companies and agents who provide designing and construction of small solar power plants increased. Except for solar power plants, the number of production facilities that produce electricity from other renewable sources (biomass, biogas, wood biomass, landfill gas, etc.) also increased.

**Table 12: Installed capacities of the production facilities active in the Slovenian market**

Producer	Installed capacity [MW]	Share- all producers in Slovenia (%)	Share on the transmission network (%)
<b>HSE</b>	<b>1,846</b>	<b>61.2%</b>	<b>66.8%</b>
HPP	995		
TPP	851		
<b>GEN energija</b>	<b>778</b>	<b>25.8%</b>	<b>28.2%</b>
HPP	119		
TPP	312		
NPP*	348		
<b>TE-TOL</b>	<b>113</b>	<b>3.7%</b>	<b>4.1%</b>
<b>Other small producers (on the transmission network)</b>	<b>25.6</b>	<b>0.8%</b>	<b>0.9%</b>
Small HPP	10.4		
Cogeneration units	15.2		
<b>Other small producers (on the distribution network)</b>	<b>251.77</b>	<b>8.4%</b>	<b>-</b>
Small HPP	99.41		
Solar power plants	49.47		
Wind-powered plants	0.02		
Production facilities using biomass	5.20		
Geothermal power plants	0.00		
Production facilities using landfill gas	7.06		
Production facilities using gas from purification plants	0.20		
Production facilities using biogas	17.26		
CHP facilities using wood biomass	9.15		
CHP facilities using fossil fuels	30.92		
Other	33.08		
<b>Total in Slovenia</b>	<b>3,015</b>	<b>100%</b>	<b>-</b>
<b>- on the transmission network</b>	<b>2,763</b>	<b>-</b>	<b>100%</b>

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

Source: Companies' data

In line with 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 2010 Slovenian power plants produced a total of 15,449 GWh of electricity, but the actual Slovenian production was smaller, amounting to 12,759 GWh.

Presented data show the whole electricity production, including part of the energy that was not delivered to the public electricity network (own consumption).

In 2010 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 about 60% of all the electricity. These are followed by the nuclear power plant, producing about one fifth of all the electricity. In comparison with 2009, we can see a slight decrease in the production share of the other small power plants connected to the transmission network, while smaller units connected to the distribution network slightly increased their market share of slightly less than half a percentage point.

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

Type of production	Production (GWh)	Share	Production – 50% Krško NPP (GWh)	Share
Nuclear power plant	5,380	34.8%	2,690	21.1%
Thermoelectric power plants	4,886	31.6%	4,886	38.3%
Hydroelectric power plants	4,243	27.5%	4,243	33.3%
Other power plants on the transmission network	112	0.7%	112	0.9%
Power plants on the transmission network	827	5.4%	827	6.5%
<b>Total</b>	<b>15,449</b>	<b>100.0%</b>	<b>12,759</b>	<b>100.0%</b>

Source: Companies' data

In 2010 a good 55 MW of the new production capacities were connected to the Slovenian electricity network, especially solar power plants. In March 2010 block 1 in TEŠ stopped to operate. A gradual increase of production facilities using renewables and cogeneration units can be noticed.

**Table 14: Connections of the new facilities and disconnections of the old productions facilities**

Type of production	Installed net capacity in 2010 of the new power plants (MW)	Installed net capacity in 2010 of the disconnected power plants (MW)
Thermoelectric power plants using coal	0.00	25.00
Hydroelectric power plants	2.88	0.00
Solar power plants	40.65	1.03
Production facilities using biomass	1.10	0.00
Production facilities using biogas	3.28	6.27
CHP facilities using fossil fuels	2.98	0.02
Other	4.76	0.00
<b>Total</b>	<b>55.65</b>	<b>32.32</b>

Source: Companies' data

### 4.3.1.2 The business operations of production companies

According to the unaudited financial statements, the companies for electricity production finished 2010 with a net profit of 26.63 million euros, which was 57.9% less than in 2009. In 2010 the best financial results were achieved by the Dravske elektrarne Maribor, contributing 48.7 percent of the total generated amount.

**Table 15: Net profits of the companies for electricity production**

In mio EUR

	Net profit		Index 10/09
	2009	2010	
Dravske elektrarne Maribor	28.19	12.98	46.0
Savske elektrarne Ljubljana	2.01	0.63	31.3
Soške elektrarne Nova Gorica	4.78	9.70	202.9
Hidroelektrarne na spodnji Savi	1.26	0.16	12.7
Termoelektrarna Brestanica	2.55	1.65	64.7
Termoelektrarna Šoštanj	0.05	4.20	8,400.0
Termoelektrarna Trbovlje	0.72	-0.45	-62.5
Termoelektrarna Toplarna Ljubljana	6.42	-2.24	-34.9
Nuklearna elektrarna Krško	0.00	0.00	
<b>Total</b>	<b>45.98</b>	<b>26.63</b>	<b>57.9</b>

Source: Companies' data

At the end of 2010 the companies for electricity production had 2234 employees, of which the hydroelectric power plants employed 550, the thermoelectric power plants employed 1093, and the Krško Nuclear Power Plant employed 591 staff members. In comparison with 2009 the number of employees in the thermoelectric power plants decreased by 63 employees, or 5.4%, the number of employees in the Krško Nuclear Power Plant decreased by 33 employees, or 5.3%, and the number of employees in the hydroelectric power plants increased by 13, or 2.4%.

**Table 16: Number of employees in the companies for electricity production**

	2009	2010	Index 10/09
Dravske elektrarne Maribor	288	282	97.9
Savske elektrarne Ljubljana	119	116	97.5
Soške elektrarne Nova Gorica	130	126	96.9
Hidroelektrarne na spodnji Savi	0	26	
Termoelektrarna Brestanica	140	112	80.0
Termoelektrarna Šoštanj	498	488	98.0
Termoelektrarna Trbovlje	220	209	95.0
Termoelektrarna Toplarna Ljubljana	298	284	95.3
Nuklearna elektrarna Krško	624	591	94.7
<b>Total</b>	<b>2,317</b>	<b>2,234</b>	<b>96.4</b>

Source: Companies' data

The state is, directly or indirectly (through the ownership of the HSE and GEN energija), the majority owner of all the companies for electricity production, except for the Krško Nuclear Power Plant, where it holds a 50-percent share. HSE and GEN energija are 100-percent owned by the state.

**Table 17: Ownership structure of the companies for electricity production**

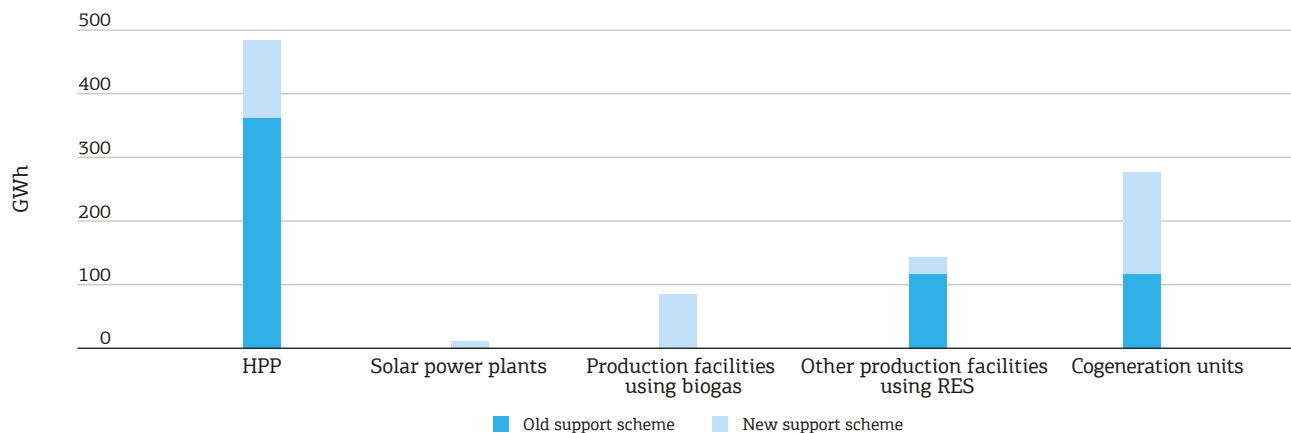
	Republic of Slovenia	Holding slovenske elektrarne	GEN energija	Javno podjetje Energetika Ljubljana	Other shareholders	Dravske elektrarne	Croatian electricity industry
Dravske elektrarne Maribor		100.0%					
Savske elektrarne Ljubljana			86.2%		13.8%		
Soške elektrarne Nova Gorica		100.0%					
Hidroelektrarne 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	57.4%			42.6%			
Nuklearna elektrarna Krško			50.0%				50.0%

Source: Companies' data

#### 4.3.1.3 The electricity from renewable sources and cogeneration of electricity and useful heat

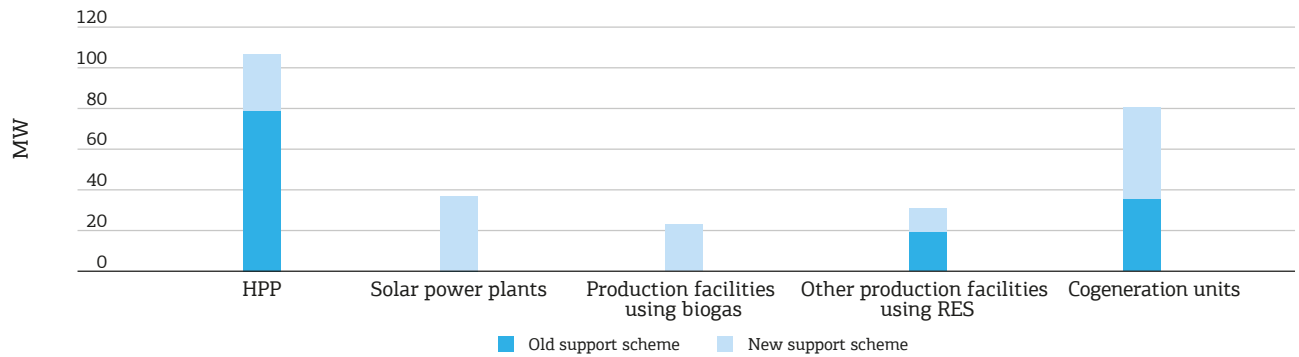
The year 2010 was the first year in which the new support scheme was carried out the whole year. New support scheme was provided by amending the Energy Act in 2008 and after the publication of relating executive regulations it was implemented in November 2009. The old support scheme which included producers whose production units do not meet the conditions to enter the new support scheme, and were included on the basis of the status of qualified supplier, was used parallel. The production facilities included in the support system produced a total of over 995 GWh of electricity, of the total net capacity 280 MWh.

**Figure 20: Production of units included in the support system at the end of 2010**



Source: Energy Agency

**Figure 21: Net capacity of production facilities included in the support scheme at the end of 2010**

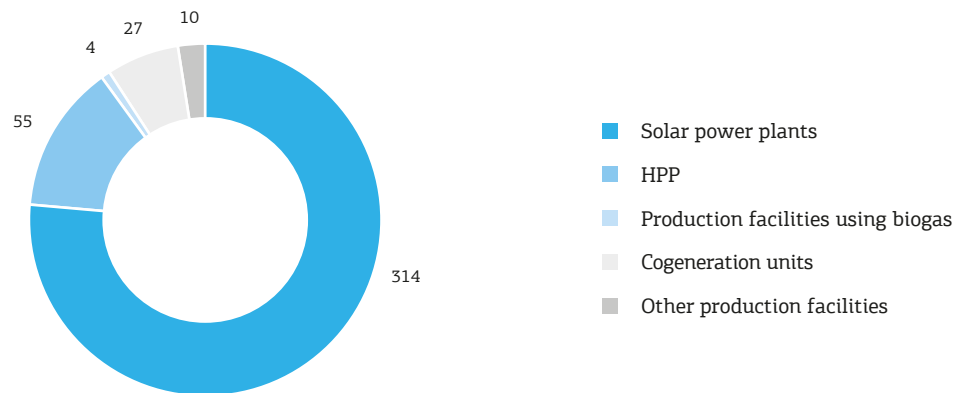


Source: Energy Agency

**The production declarations and decisions on granting support**

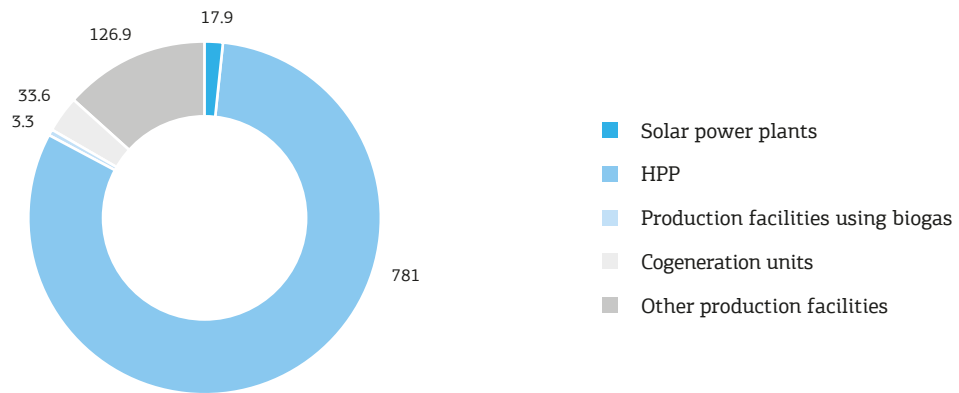
In 2010 the Energy Agency issued 410 declarations for a production facility using RES or co-generation facilities. Most of the declarations were issued for solar power plants because of the large number of individual investors, who as a result of the introduction of new support scheme, decided to build their own plants. With respect to power, most declarations were issued for HPP, since the majority of declarations were issued for medium and small HPP.

**Figure 22: Number of the issued declarations for production facilities in 2010**



Source: Energy Agency

**Figure 23: Net capacity in MW for production facilities with issued declaration in 2010**

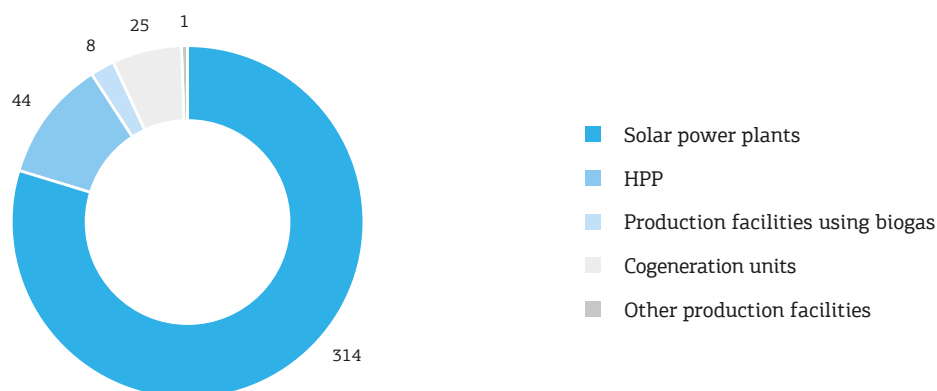


Source: Energy Agency

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

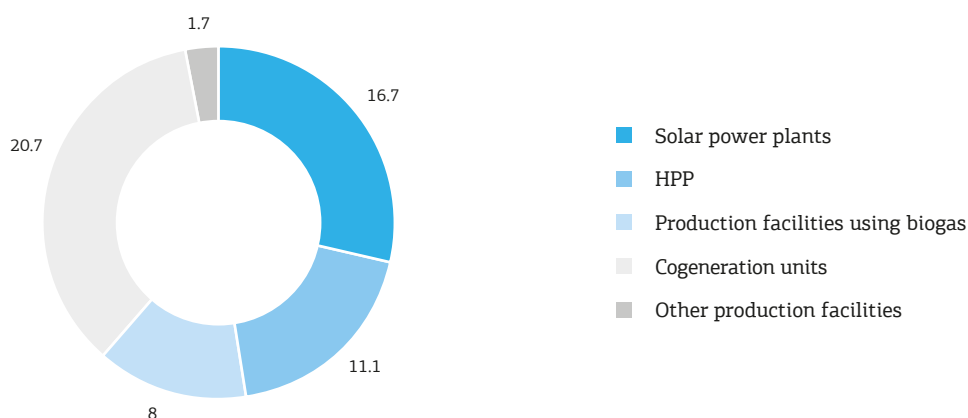
The Energy Agency issued 392 decisions on granting support allowing the support to be obtained in line with the new support scheme, most of them for solar power plants.

**Figure 24: Number of the issued granted support for the productions facilities**



Source: Energy Agency

**Figure 25: Shares according to the net capacity, for the production facilities that received decisions on granting support in 2010**



Source: Energy Agency

### The guarantees of origin and the RECS certificates

The Energy Agency issued guarantees of the origin of electricity for a total of 3,034,943,404 kWh and for a total of 135,652,000 kWh RECS certificates (Renewable Energy Certification System).

#### 4.3.1.4 The emission coupons

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 have to be fulfilled by the end of 2010). The year 2009 was a crucial year, aimed at further action to alleviate the consequences of global warming. In December 2009, the final 'Kyoto' negotiations were held in Copenhagen. The climate change policy, launched by the European Union, has been ambitious outlined and applies to all the EU Member States.

The objectives are as follows:

- the EU should by 2020 reduce the GHG emissions by 20%
- in the final energy consumption increase renewable energy sources to 20%
- reach the 10-percent share of biofuels as transport fuel and 20-percent increase in energy efficiency

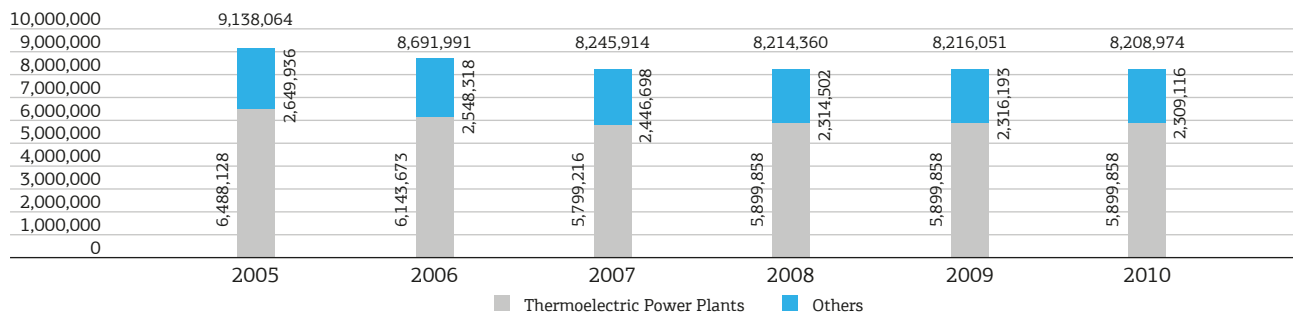
The system of trading with emission coupons includes the facilities with an input heat power of 20 MW, and, with respect to the energy sector, also the facilities with an input heat power of 15–20 MW.

In line with the Environmental Protection Act, the National Distribution Plan for Emission Coupons for the Period 2008–2012 was prepared in Slovenia. This document sets the number of emission coupons distributed by the state free of charge. One emission coupon represents a tonne of CO<sub>2</sub>. For each current year, the companies, i.e., the operators of the facilities have to register the number of emission coupons that matches their CO<sub>2</sub> emissions. If their emissions exceed the number of distributed emission coupons, the operators have to buy the remaining emission coupons in the market. If, on the other hand, the operators have a surplus of emission coupons because they produce small amounts of emissions, they can sell their coupons 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 2010 the thermal-energy sector received the same amount of coupons (5,899,858) as in 2008 and 2009, which was more than 70% of the emission coupons distributed in Slovenia. With respect to the actual emissions and the prices for emission coupons 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 26: Number of distributed emission coupons for 2005–2010**



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

**Figure 27: Movement of the price for emission coupons from the second trading period in 2010**



Source: EEX

In the first quarter of 2010 the price for emission coupons ranged between 13 and 14 euros per tonne of CO<sub>2</sub>, followed by a rapid increase. In May 2010 reached 17 per tonne of CO<sub>2</sub>. Otherwise, the price in 2010 ranged between 14 and 16 euros per tonne CO<sub>2</sub>.



### 4.3.1.5 The degree of competitiveness of the production companies

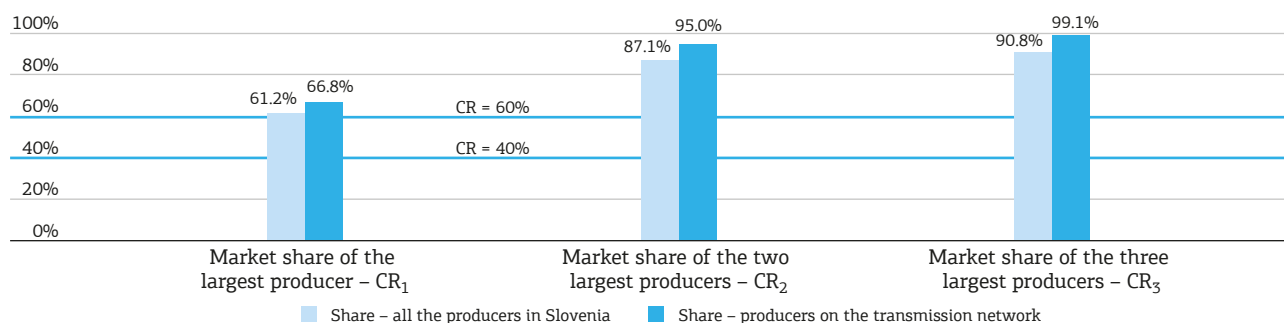
The concentration rate in this area is an important indicator of the market structure. With a concentration rate, we express the total market share of the largest companies in the area, and measure the level of market dominance, or oligopoly. The concentration rate is mainly affected by two factors: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

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<sub>1</sub>), the market share of the two largest producers (CR<sub>2</sub>), and the market share of the three largest market producers (CR<sub>3</sub>) in Slovenia.

Figure 28 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).

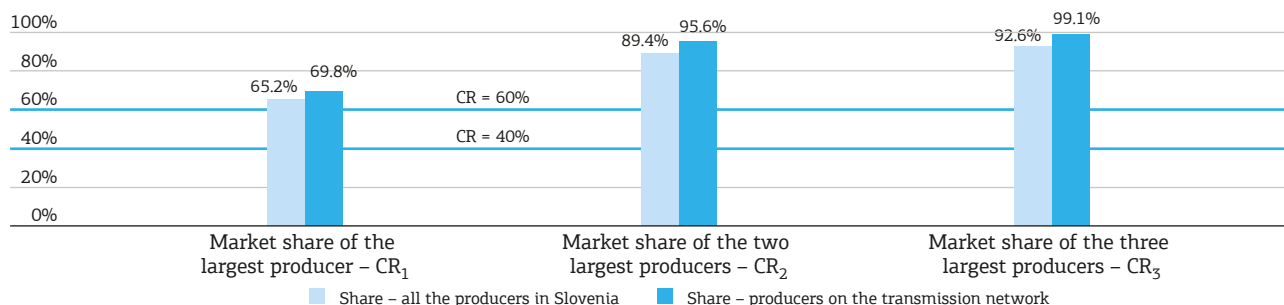
**Figure 28: Cumulative shares of the one (CR<sub>1</sub>), two (CR<sub>2</sub>) and three (CR<sub>3</sub>) largest producers in the market with respect to the installed capacity and 50 percent of the production from the Krško NPP**



Source: Companies' data

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

**Figure 29: Cumulative shares of the one (CR<sub>1</sub>), two (CR<sub>2</sub>) and three (CR<sub>3</sub>) largest producers in the market with respect to electricity production and 50 percent of the production from the Krško NPP**



Source: Companies' data

In 2010 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 exceeds 40% (CR<sub>1</sub>) in spite of its restructuring, remained the dominant company in 2010 as well. The share of the two largest electricity producers on the transmission network (CR<sub>2</sub>) reached almost 90%, and the share of the three largest electricity producers on the transmission network almost 93% (CR<sub>3</sub>). That is showing an extremely tight oligopoly, caused by the fact that there are only two energy pillars in the wholesale market.

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

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

**Table 18: HHI with respect to the installed capacity of the producers in the Slovenian market**

Producers	Market share with respect to the installed capacity- total in Slovenia	Market share with respect to installed capacity- the transmission network	HHI with respect to installed capacity- total Slovenia	HHI with respect to installed capacity- the transmission network
HSE	61.2%	66.8%		
GEN energija	25.8%	28.2%		
TE-TOL	3.7%	4.1%		
Other small producers (transmission network)	0.8%	0.9%		
Other small producers (distribution network)	8.4%	-		
<b>Total for Slovenia</b>	<b>100.0%</b>	<b>-</b>	<b>4,500</b>	<b>-</b>
<b>- on the transmission network</b>	<b>-</b>	<b>100.0%</b>	<b>-</b>	<b>5,275</b>

Source: Companies' data

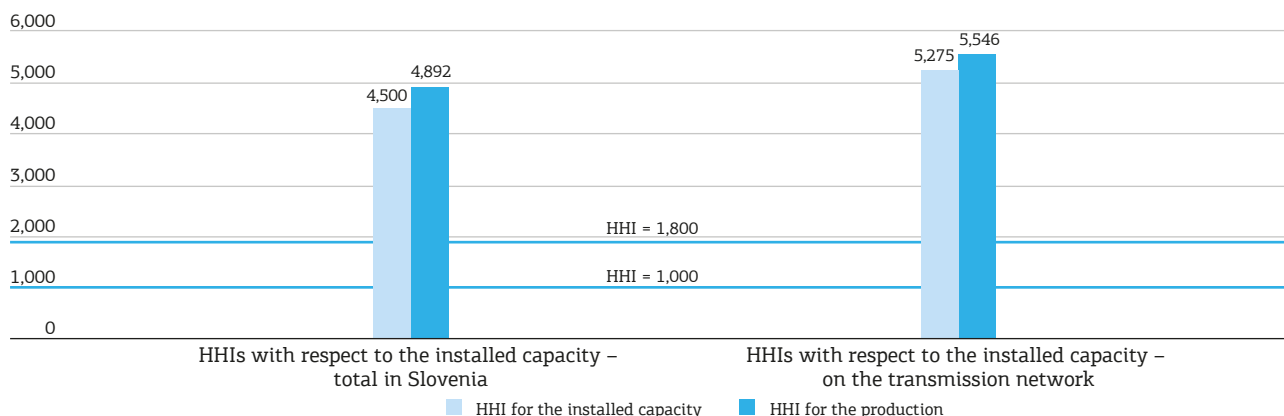
**Table 19: HHI with respect to the producers on the transmission network in Slovenia**

Producer	Market share with respect to production- total in Slovenia	Market share with respect to production on the transmission network	HHI with respect to production - total in Slovenia	HHI with respect to production - on the transmission network
HSE	65.2%	69.8%		
GEN energija	24.1%	25.8%		
TE-TOL	3.3%	3.5%		
Other small producers (transmission network)	0.9%	0.9%		
Other small producers (distribution network)	6.5%	-		
<b>Total for Slovenia</b>	<b>100%</b>	<b>-</b>	<b>4,892</b>	<b>-</b>
<b>- on the transmission network</b>	<b>-</b>	<b>100.0%</b>	<b>-</b>	<b>5,546</b>

Source: Companies' data

In 2010 the HHIs still significantly exceeded the upper limit of the medium concentration (HHI = 1800), showing the dominant position of the producers DEM, SENG, TEŠ, TET and HESS, joined in the HSE with respect to the production of electricity as well as the provision of ancillary services. Gen energija consists of SEL, TEB and Krško NPP. The third largest producer is TE-TOL. Other small producers connected to the transmission and distribution network contribute as well to the total production of electricity in Slovenia.

**Figure 30: HHIs of the production companies**



Source: Companies' data

#### 4.3.1.6 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, provides the following ancillary services:

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

For 2010 the next scope of the ancillary services was predicted:

- the reserve for the secondary control of frequency and power:  $\pm 80$  MW,
- the reserve for the secondary control of frequency and power: 348 MW,
- the negative reserve for tertiary control of frequency and power: 180 MW.

Compared with previous years two major changes in 2010 occurred. The first change happened because the PSPP Avče started to operate. This plant with an output of approximately of 180 MW can operate as the producer or as a big net consumer when pumps the water. In case of power plant failure when generating, the normal tertiary reserve is needed for continuing the production; if the power plant fails when pumps the water, the so-called negative tertiary reserve is required, which provides an appropriate reduction of energy production in the system. Another significant change is the classification of required scope of tertiary reserve into three groups. The system operator analysed the needs of engaging tertiary control over the past years; according to that and according to the availability of this reserve, the reserve was classified into three products, which differ with regard to the quality parameters, as shown in Table 20.

**Table 20: Required product quality of tertiary reserve in 2010**

Producer	Product A	Product B	Product C
Quantity (MW)	134	66	148
Source of reserve	Slovenia	UCTE	UCTE
Time of activation	≤15 min.	≤15 min.	≤15 min.
Time of the announcement of changes of activations	≤15 min.	≤60 min.	≤120 min.
Number of activations in year	≥50	≥25	≥15

Source: Eles

The final results of purchasing the reserve power to provide ancillary services in 2010 are shown in Table 21.

**Table 21: Review of the amounts of leased reserve power**

Selected bidder	Tertiary reserve (MW)	Secondary reserve (MW)
HSE	134 (product A)	77
GEN energija	66 (product B)	-
TE-TOL	-	3
Rudnap Group A.D.	148 (product C)	-
<b>Total</b>	<b>348</b>	<b>80</b>

Source: Eles

#### 4.3.1.7 Trading on the organised market

The Slovenian organized electricity market for electricity is basically divided into the wholesale market and the retail market. On the wholesale market, the producers the traders and the suppliers of electricity participate. They trade on the basis of the 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 2010 a total of 78,411 closed contracts and a total of 62,942,491.50 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 11.1%, and the total amount of electricity from recorded closed contracts and operational forecasts increased by 12.9%.

#### 4.3.1.7.1 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 2010, there were 26 full members participating at the Slovenian electricity exchange, which was 9 more comparing with the previous year.

In 2010, participants who trade at the BSP, could trade 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 with the following products:

- Hourly trading products (24 hours of a single day are traded)
- Base (00:00-24:00)
- Euro-peak (08:00-20:00)

In the continuous market, the participants traded with five standard products:

- Base (00:00 – 24:00),
- Peak (06:00 – 22:00)
- Euro-peak (08:00 – 22:00)
- Off-peak 1 (00:00 – 06:00),
- Off-peak 2 (22:00 – 24:00)
- Euro-off-peak 1 (00:00 - 08:00)
- Euro-off-peak 2 (20:00 - 24:00)

In 2010 the exchange BSP also offer the possibility of the clearing of the transactions concluded outside the exchange (the so-called OTC clearing).

At the annual level, the total amount of traded energy was 195,433 MWh. For only 120 MWh of transactions were concluded on the basis of continuous trading, all the remaining 195.313 MWh within auction trading. Trading increased significantly in comparison with the previous year, when it had amounted to only 11,044 MWh, mainly because, since March, Borzen on BSO was selling energy which Centre for Support bought within the guaranteed purchase from producers from RES and cogeneration facilities.

The average price for the Base was 46.70 EUR/MWh, and for Euro-peak 53.52 EUR/MWh, which was 8.9% more for Base, and 14.2% more for Euro-peak in comparison with the previous year. This increase is much bigger than the one on the German EEX, where prices in the day-ahead market (for all products) increased by almost 8%. Higher prices in the Slovenian stock market are the consequence of bigger trading volumes in 2010, which means that this year, prices were more realistic reflection of the actual market situation, as they were in previous years.

#### 4.3.1.8 The degree of electricity-market integration with the neighbouring countries

The Slovenian electricity market is situated between three different regional markets with very different energy prices. These are the market of Central-Eastern Europe (Germany, Austria, Poland, Czech Republic, Slovakia and Hungary), the Italian market, and the market of South-East Europe.

Also in 2010 all these markets felt the impact of the economic crisis that was reflected in reduced consumption of electricity than it was in years before 2009. The reducing was more noticeable in East and South-East Europe, which resulted in a greater difference between the price in this area, and the price in the Italian market, where remained relatively high. Due to increased transmission capacities on the border between Slovenia and Austria, a price reduction occurred between Slovenia and the common market of Austria and Germany.

As a result of this situation, the Slovenian transmission network in 2010 faced large flows, or transit of electricity from directions from Croatia to Austria and to Italy. These load flows occasionally even jeopardized the safe operation of the network. Conditions improved before the end of the year, when phase-shifting transformer in DTS Divača started to operate.

The traders in the Slovenian electricity market are those that supply electricity to Slovenian end customers and those that resell it to other traders or suppliers. Most of these traders also participated in the neighbouring markets. Missing quantities of electricity required for Slovenia were bought in the markets of Central-Eastern Europe and South-East Europe.

In 2010 the total exports from Slovenia amounted to 10,745 GWh of electricity. This figure includes the export of half of the electricity generated by the Krško NPP, which belongs to the Republic of Croatia on the basis of a bilateral agreement. The actual export of electricity amounted to 8060 GWh. In the same period Slovenia imported a total of 8599 GWh of electricity. These figures show that in 2010, Slovenia imported 540 GWh of electricity. By the comparison with previous year, when Slovenia exported 359 GWh, we can conclude that Slovenia once again became net importer of electricity. However, this change is not because of lack of production in Slovenia but because of larger quantities of cheaper electricity, available abroad. Also large amounts of available CBTCs for import from Austria or Germany contributed to this change.

Electricity prices on the Slovenian wholesale market in 2010 largely followed the prices at the German EEX; due to more available CBTCs the difference between both prices was lower than in previous years.

To a large extent, the electricity prices in the Slovenian wholesale market followed the prices at the German exchange, the EEX. One reason for this is the fact that there is no other liquid electricity exchange in the region, except in Italy, where the prices are significantly higher.

The Energy Agency was involved in the activities in three regions: Central- Eastern Europe, Central-South Europe and South-East Europe.

In the region Central-Eastern Europe it was previously agreed that the regional Auction House CAO in 2010 started to allocate CBTCs for the entire region, according to the new methodology based on actual load flows in the network. However, representatives of TSOs from the region established that new methodology still contains certain ambiguities that could lead to a reduction in service reliability in operation of the interconnected systems. The decision on allocating CBTCs was therefore postponed to 2011. The regulators from the region agreed. The result of this decision was that allocation of CBTCs was the same as in the last few years. Capacities between Germany, Czech Republic, Poland and Slovakia are allocated at the joint auctions, while on the other borders take place bilaterally between individual system operators. This also applies for the border between Slovenia and Austria. As a preparation for future joint allocations of CBTCs in the region using new methodology based on load flows, in December 2010 a new way to announce schedules, fully consistent with the requirements of the new methodology, was introduced.

In the region Central-South Europe that includes Italy and its neighbouring countries, and the border between Italy and Slovenia, in 2010 the activities to ensure the joint allocation of CBTCs were taken, as required by the Regulation 1128/2003 and Congestion Management Guidelines. Auctions for capacities used in 2010 were carried on bilateral level, coordinated for each border. Already in 2009 it was decided that for the capacities used in 2010 the auctions will be carried out by the auction house CASC, which was established for the implementation of auctions in the region Central-West. It appeared, during the year, that auctions could not be carried out by CASC at the beginning of the year, but only from April that year. Therefore, all activities in the region necessary to ensure the auction by April 2011 were conducted. Appropriate auctions rules for the region, which provide all auctions for CBTCs till March 2011 in the old way and from April under the CASC, were prepared as well.

In 2010 all preparatory activities for merging the markets of Slovenia and Italy on 1 January 2010 were finished. From this date on, the merging of the CBTCs at the Slovenian-Italian border replaces the explicit allocations of CBTCs for the day ahead with implicit auctions, that is the simultaneous buying power at the auction and the allocation of adequate transmission capacity. In 2010, a special working group, in which representatives of the regulators, governments, TSOs and the power exchanges of Slovenia and Italy took part, prepared the necessary agree-

ments and rules of engagement for market coupling on the Slovenian-Italian border. General agreement and Pentalateral agreement were prepared, signed by the both TSOs and power exchanges, with the prior consent of both regulators. One the main problem to solve by the working group was the question of financing the intermediaries between the two markets or exchanges, which occurred due to significantly different payments deadlines for the supplied energy on the Slovenian and Italian markets. Working group in 2010 adopted an interim solution that the roles of intermediaries are carried out by the both TSOs.

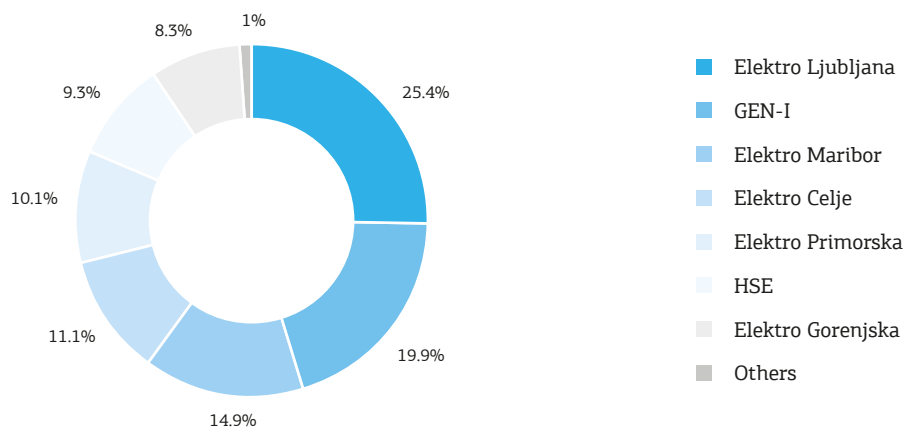
In the so called eighth region South-East Europe in 2010 the activities similar to the ones in the other two regions were carried out. In this region too, intensive preparations for establishing a coordinated auction office were in progress. As most of this region is composed of the signatories to the 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.

## 4.3.2 The supply and the retail market

### 4.3.2.1 The suppliers in the retail market

In 2010 sixteen suppliers were active in the retail market supplying electricity, on the basis of the contracts, to 7 customers connected to the transmission network (separately to PSPP Avče), and to 920,911 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.

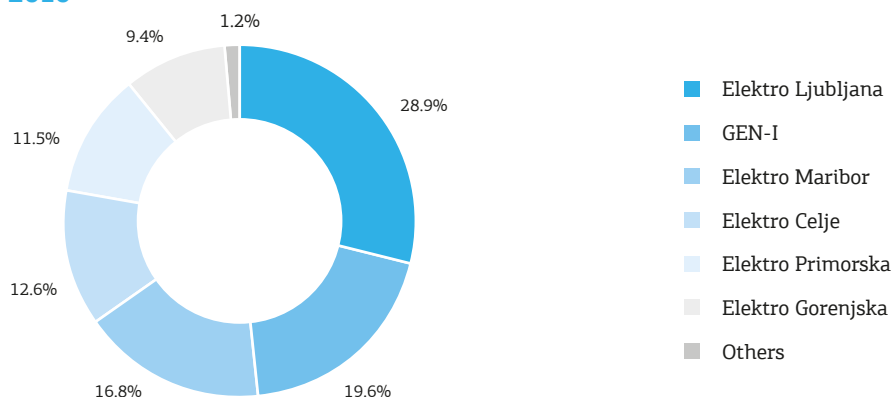
**Figure 31: Market shares of the electricity suppliers at the end of 2010**



Source: Companies' data

In 2010 the end customers in Slovenia were supplied with 11,9 TWh of electricity. Elektro Ljubljana, d. d., had the largest market share, but it decreased its market share by almost 3% in compared to 2009. It was followed by GEN-I, d. o. o, which increased its market share for almost 5%. Elektro Maribor, d. d, kept its 15-percent market share. Also other suppliers had the same market shares in comparison with the previous year.

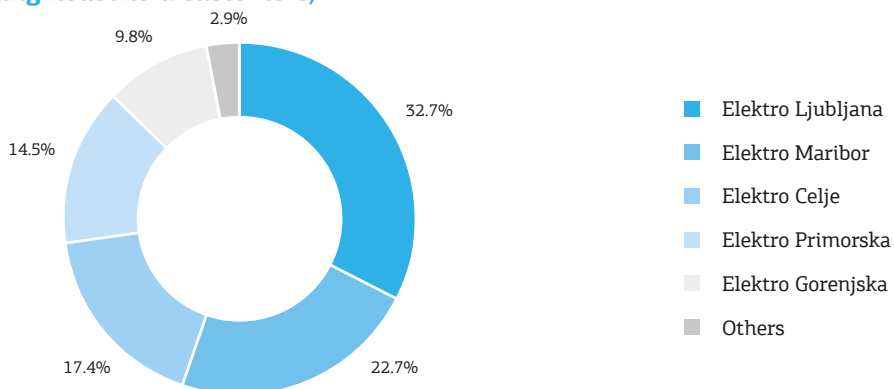
**Figure 32: Market shares of the suppliers to the customers on the distribution network at the end of 2010**



Source: Companies' data

With respect to the market shares of the suppliers to the customers on the distribution network, Elektro Ljubljana, d. d., had the largest share, but it lost 3 percentage points. The largest increase of the market share had GEN-I, d. o. o., which reached almost 20-percent market share in 2010, and ranked second. Other suppliers kept almost the same market shares in comparison with 2009.

**Figure 33: Market share of the suppliers to the customer with an annual consumption of up to 50 MWh (including household customers)**

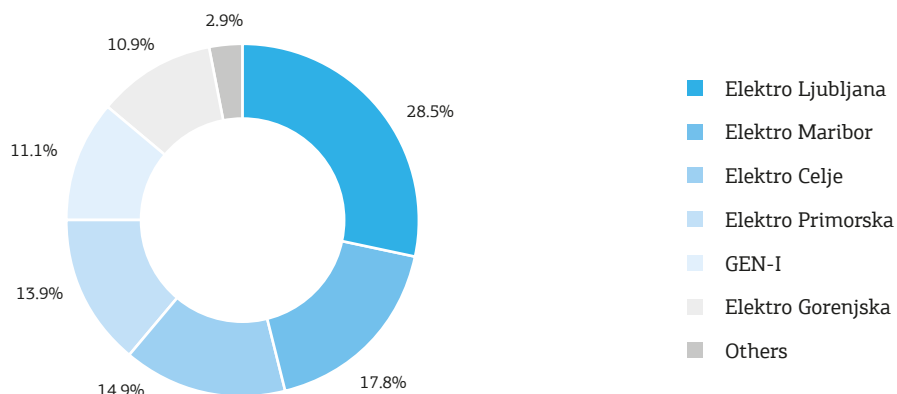


Source: Companies' data

Figure 33 shows the market shares of the suppliers to the customers with an annual consumption of up to 50 MWh. The largest share had Elektro Ljubljana, d. d., following by other distribution companies, which had almost the whole market share as in 2009.



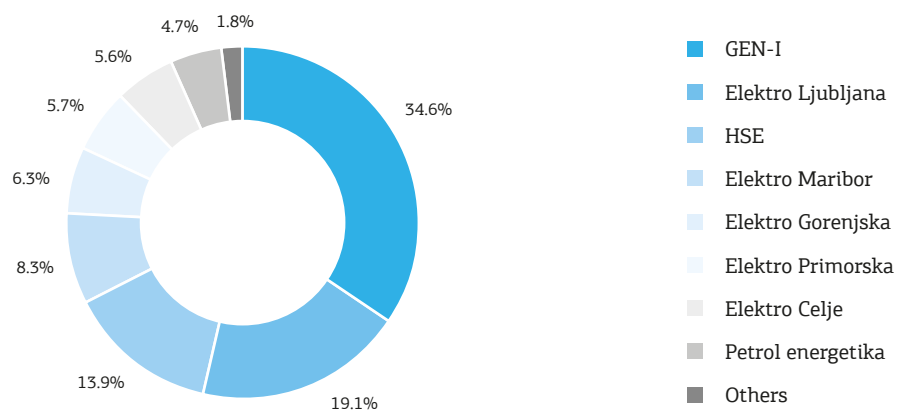
**Figure 34: Market shares of the suppliers to the customers with an annual consumption between 50 MWh and 2 GWh**



Source: Companies' data

With respect to supplying the customers with an annual consumption between 50 MWh and 2 GWh, in comparison with previous group, GEN-I, d. o. o., had a noticeable market share, suggesting that the company had a larger share of business customers.

**Figure 35: Market share of the suppliers to the customers with an annual consumption of over 2 GWh**

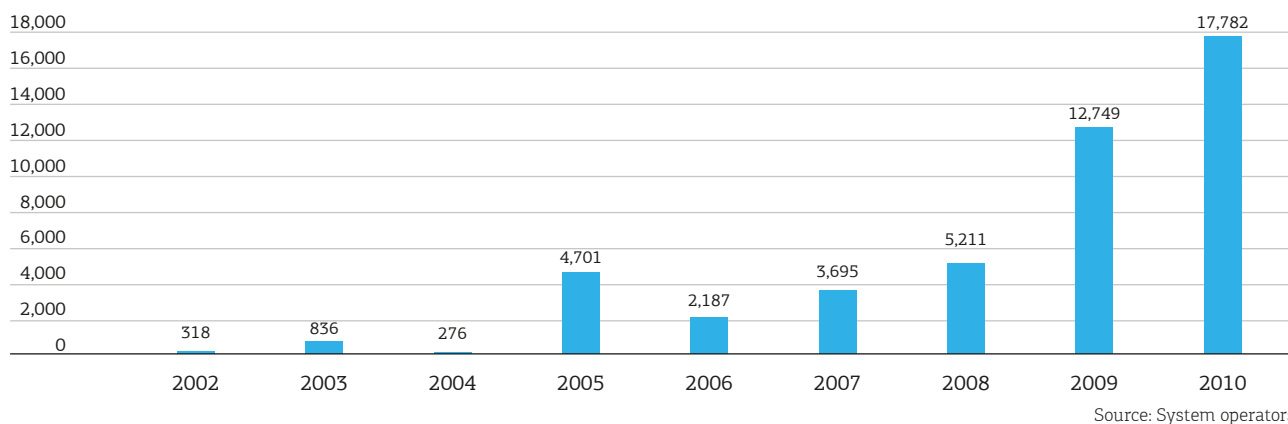


Source: Companies' data

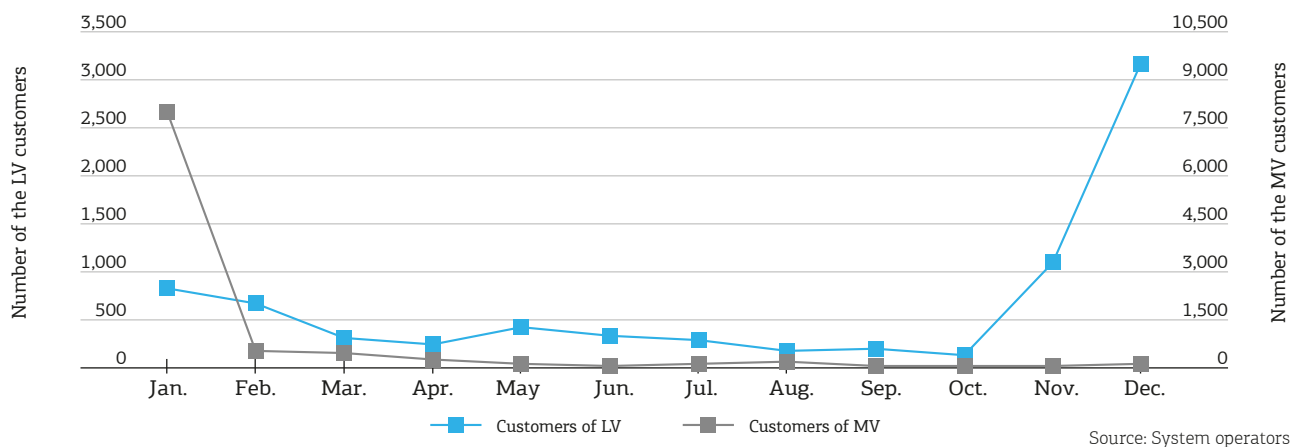
With respect to supplying electricity to the customers with the largest consumption, in 2010 there was another change in the first place. The largest market share had GEN-I, d. o. o., with almost 35-percent market share. Petrol Energetika, d. o. o., increased its position, and supplied electricity to these customers with almost 5-percent market share.

A total of 17,782 customers switched supplier, which was again the largest number of switches since the beginning of the opening of the Slovenian electricity market. (In 2009, there were a total of 12,749 switches.)

**Figure 36: Numbers of supplier switches for 2002–2010**



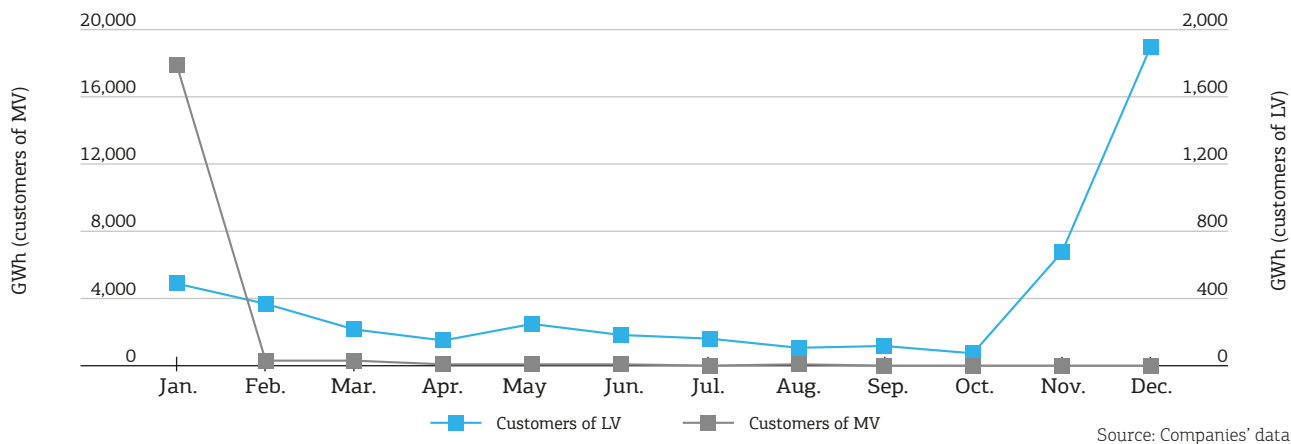
**Figure 37: Dynamics of the supplier switches in 2010 with respect to the type of the customer**



Most of the business customers decided to switch supplier at the beginning of the year, as the supply contract usually expire at the end of the year. The share of switches of business customers in the beginning of 2010 represents the most of all switches from this part of customers.

Household customers switched mostly at the end of 2010, when the suppliers introduced new offers (packages) of electricity.

**Figure 38: Dynamics of the supplier switches with respect to the amounts of energy**



The number of switches in 2010 varied on a monthly basis, which can be explained by the development in the market, i.e., changes of the prices, and the commercial campaigns. Most switches were made in December when 3150 households changed supplier.

#### 4.3.2.2 The degree of competitiveness in the retail market

Table 22 shows the market shares of the suppliers to the customers in the retail market connected to the distribution network.

**Table 22: Market shares of the suppliers to the customers on the distribution network**

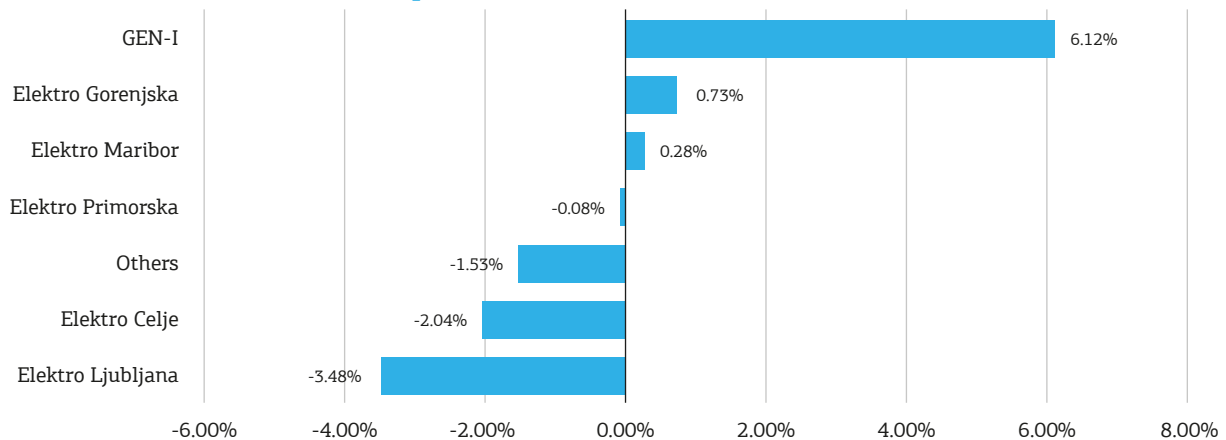
Supplier	Supplied energy (GWh)	Market share	HHI
Elektro Ljubljana	3,013.9	28.9%	
GEN-I	2,043.0	19.6%	
Elektro Maribor	1,758.6	16.8%	
Elektro Celje	1,318.7	12.6%	
Elektro Primorska	1,197.5	11.5%	
Elektro Gorenjska	986.1	9.4%	
Others	124.4	1.2%	
<b>Total</b>	<b>10,442.2</b>	<b>100%</b>	<b>1,881</b>

Source: Companies' data, Energy Agency

None of the companies in this market had a dominant position, as none of them has a share larger than 40%. Nevertheless, in spite of a distributed supply, the concentration is high, the HHI being more than 1800. It is also clear that the market share of Elektro Ljubljana is the highest, around 30%. With respect to ownership, the concentration is even higher, as the state is the majority owner of the Slovenian distribution companies.

In 2010 GEN-I increased its market share, for around 6%, all others companies except Elektro Gorenjska and Elektro Maribor decreased their market share, as is shown in the Figure 39.

**Figure 39: Changes to the market shares of the suppliers to all the customers on the distribution network in 2010 with respect to 2009**



Source: Energy Agency

Table 23 shows the entire retail market, which includes the market of the large eligible customers on the transmission network.

**Table 23: Market shares of the suppliers to all the customers**

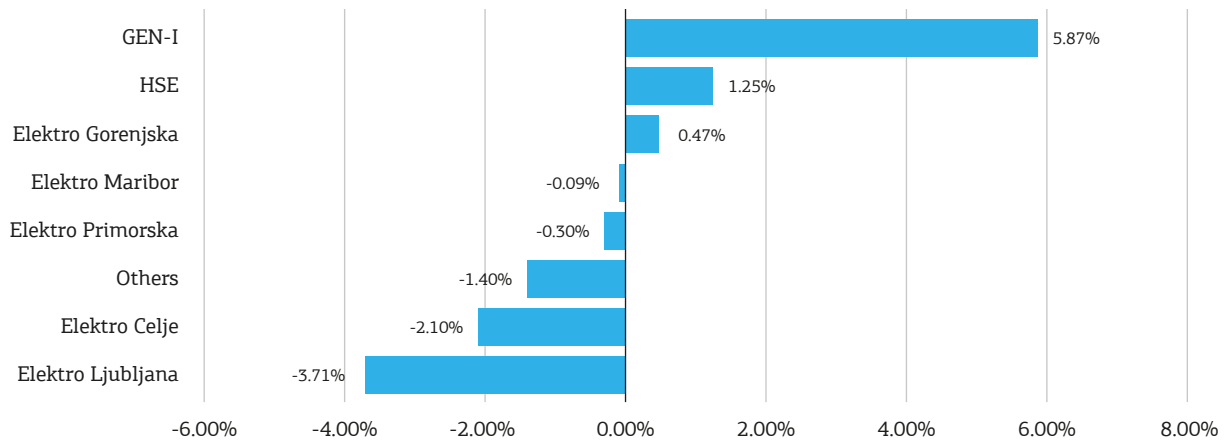
Supplier	Supplied energy (GWh)	Market share	HHI
Elektro Ljubljana	3,013.9	25.5%	
GEN-I	2,352.5	19.9%	
Elektro Maribor	1,758.6	14.9%	
Elektro Celje	1,318.7	11.1%	
Elektro Primorska	1,197.5	10.1%	
HSE	1,099.9	9.3%	
Elektro Gorenjska	986.1	8.3%	
Others	113.7	1.0%	
<b>Total</b>	<b>11,841.0</b>	<b>100%</b>	<b>1,646</b>

Source: Companies' data

A review of the entire market, also including the customers on the transmission network, shows a medium concentration, with the total HHI being below the upper limit of 1800.

Figure 40 shows that in 2010 GEN-I again increased its market share by almost 6 percentage points, on the other hand, other companies, except HSE and Elektro Gorenjska, lost their market shares, Elektro Ljubljana almost 4 percentage points. All these changes show that the electricity market is active.

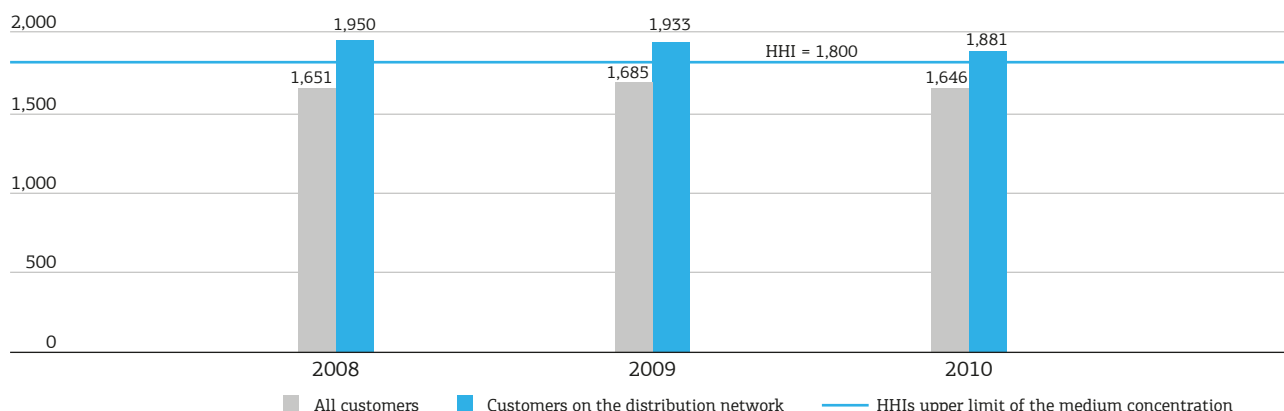
**Figure 40: Changes to the market shares of the suppliers to all the customers with respect to 2009**



Source: Energy Agency

HHI in market share of suppliers to all customers in 2010 decreased to the value of 1646, which is still medium concentration. HHI in market share of suppliers to the customers on the distribution network in the three-year period, on the other hand, shows a negative trend, suggesting a strengthening of competition between suppliers.

**Figure 41: Trends of the HHIs in retail markets for 2008-2010**



Source: Companies' data

### 4.3.2.3 The prices for electricity

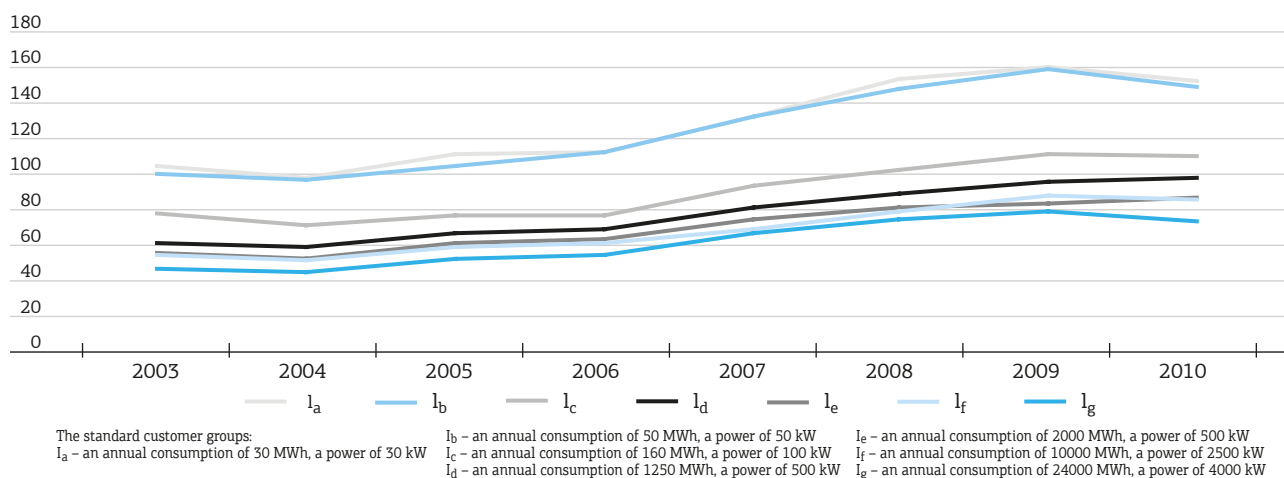
The final price of supplied energy includes the use-of-network price, energy price, the excise duty on electricity and the value-added tax. On 1 January 2009 customers started to pay two contributions; the contributions were aimed for providing support the production of electricity in cogeneration and from renewables, and the provision of security of supply by using primary domestic energy sources. On 1 January 2011 customers started to be charged for increasing the efficiency of electricity use.

In August 2010 there was an increase of excise duty for all customers. The excise duty on electricity for household customers increased from 1 EUR/MWh to 3.05 EUR/MWh. For business customers the excise duty increased from 0.5 EUR/MWh to 3.05 EUR/MWh.

#### 4.3.2.3.1 The prices of electricity for industrial customers

The trends of electricity prices for typical industrial customers in Slovenia for 2003-2010 show a continual growth with respect to industrial customers. In 2010 the final price was at the price level of 2009.

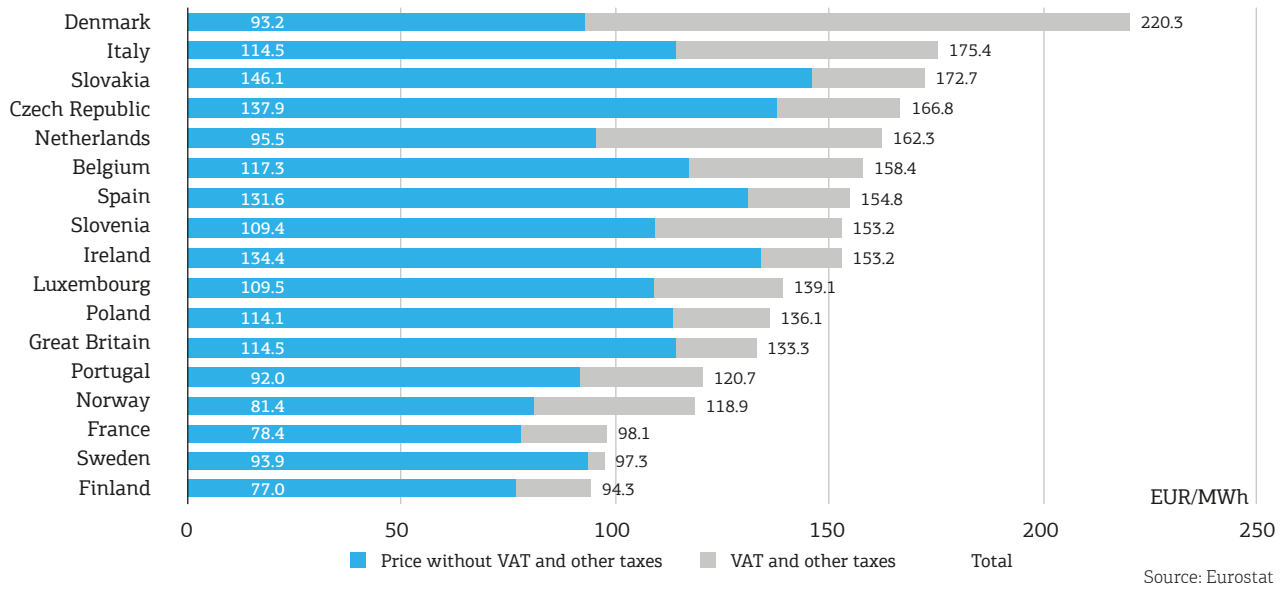
**Figure 42: Trends of the electricity prices for typical industrial customers in Slovenia (old methodology by Eurostat)**



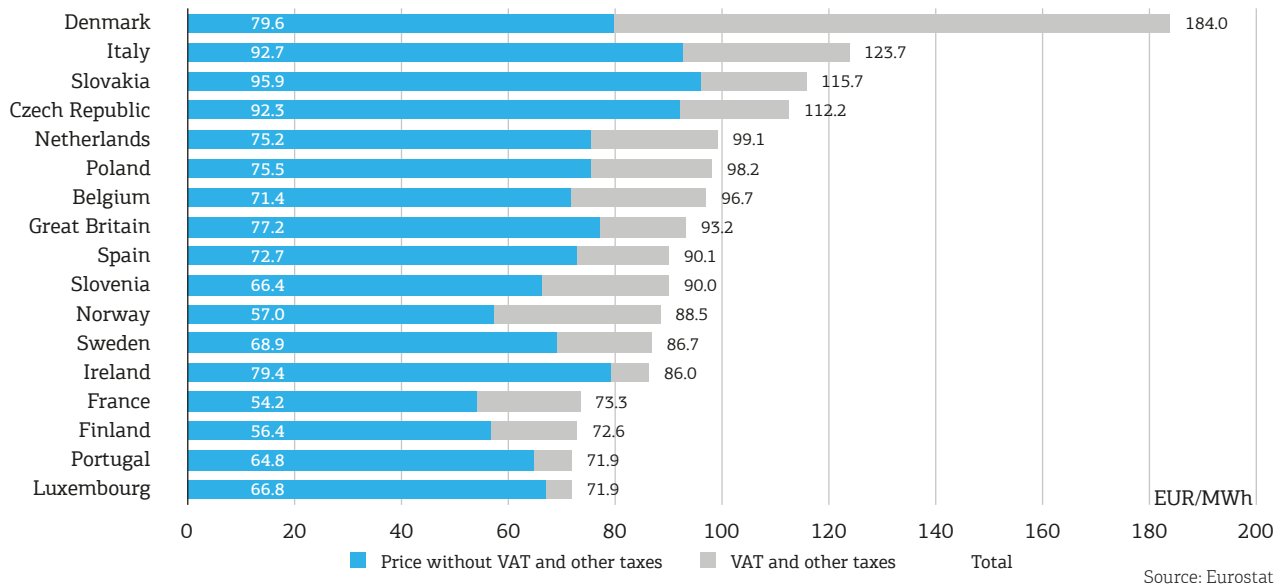
Source: Statistical Office of the Republic of Slovenia

Below is a comparison of the electricity prices in the EU countries for the second half of 2010. It refers to two typical industrial customers selected in line with the new Eurostat methodology. The comparison shows the final electricity prices, including the prices for the use-of-network price, the excise duties and the value-added tax for Slovenia.

**Figure 43: Comparison of electricity prices for a typical industrial customer with an annual consumption of 20 to 500 MWh in the EU countries and Slovenia for the second half of 2010**



**Figure 44: Comparison of electricity prices for a typical industrial customer with an annual consumption of 20 to 70 GWh in the EU countries and in Slovenia for the second half of 2010**



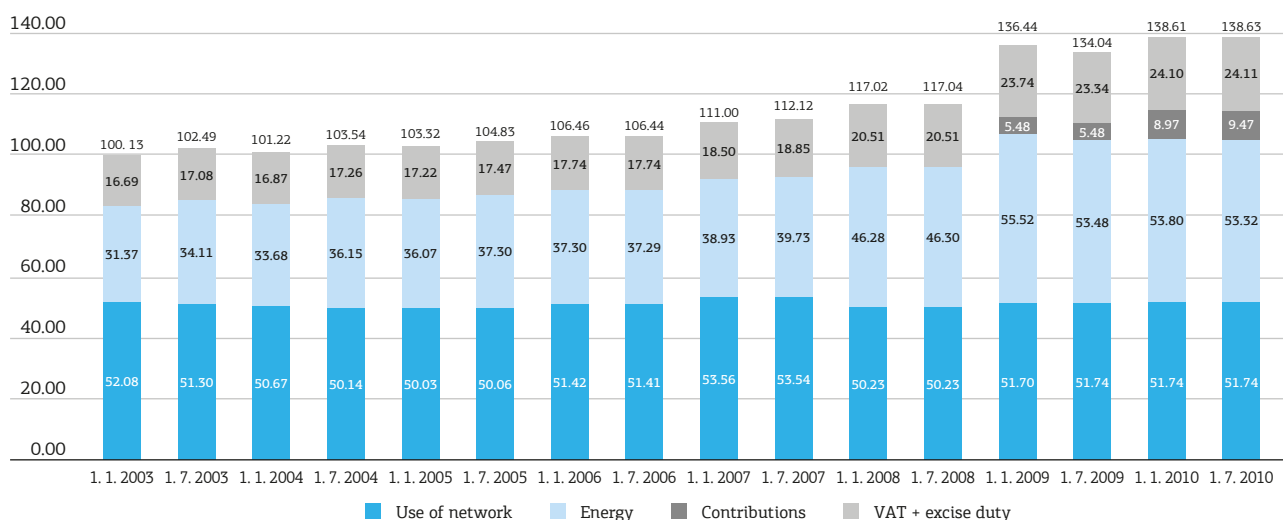
The average electricity price for industrial customer without VAT in Slovenia in the second half of the year amounted to 112.6 EUR/MWh.

### 4.3.2.3.2 The prices of electricity for household customers

The suppliers prepared their offers in the form of various packages, whose prices included, in addition to the price for electricity, also the following:

- the use-of-network price,
- the contribution supporting electricity production from domestic sources,
- the contribution supporting electricity production from high efficiency production and from renewables,
- the contribution supporting programs to increase the efficiency of electricity use,
- the excise duty on electricity,
- the value-added tax.

**Figure 45: Trend of the final electricity price for a typical household customer (D<sub>c</sub> – 3500 kWh per year) in EUR/MWh**

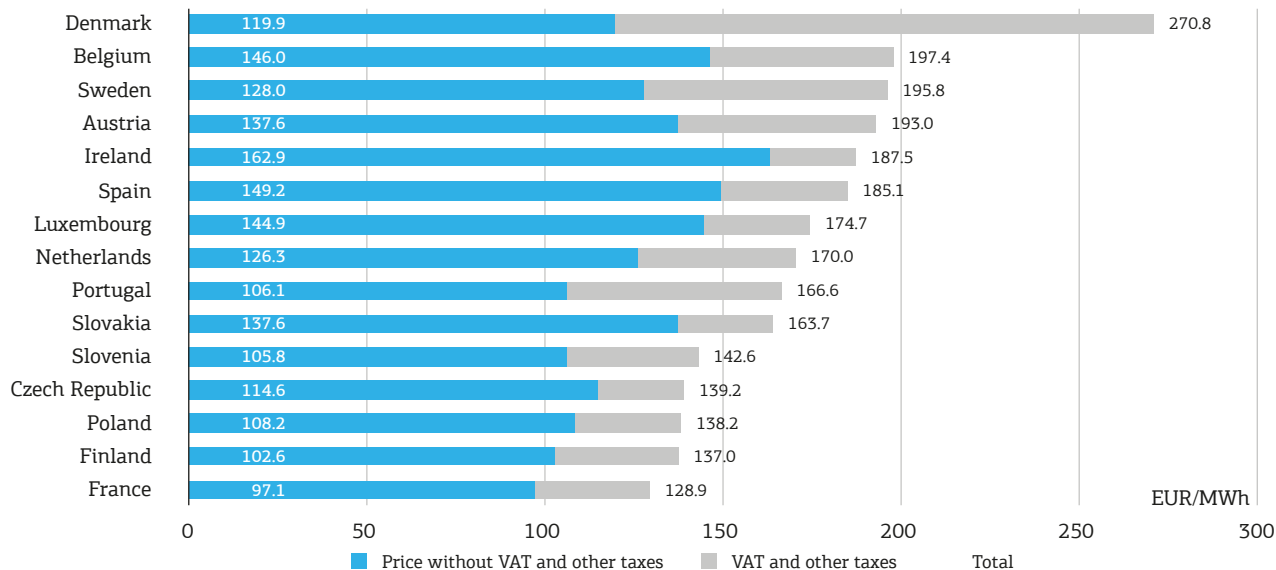


Source: Energy Agency

The final electricity price for a typical household customer D<sub>c</sub> 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<sub>c</sub>. 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.

Figure 46 shows a comparison of the electricity prices in some of the EU countries for the second half of 2010 for typical household customer, selected in line with the new Eurostat methodology. The final electricity prices are shown, including the prices for the use of electricity networks, the excise duty and the value-added tax.

**Figure 46: Comparison of the total electricity prices for a household customer with an annual consumption of 2500 to 5000 KWh in the EU countries and in Slovenia for the second half of 2010**



Source: Eurostat

The average retail price of electricity for households in Slovenia in the second half of 2010 amounted to 142.3 EUR/MWh, and in comparison with the first half of 2010 increased by 2%. Namely, in August 2010 the excise duty increased from 1 EUR/MWh to 3.05 EUR/MWh, which caused higher average retail price.

The comparison between prices is due to data available at the time of preparing this report possible for the first six months of 2010. During this time the price for household customers with an annual consumption from 2500 to 5000 kWh amounted to 84% of average price in the EU, and for industry 97% of average price in the EU-27<sup>1</sup> \*.

#### 4.3.2.3.3 Web application – Comparison of suppliers

In order to facilitate price transparency the Energy Agency prepared 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.

The application also allows calculating all the elements which the final price for electricity includes (energy, network charge, contributions, excise duty, VAT). The application performs calculations at the monthly or annual level.

In 2010 the web application underwent some upgrading in terms of extending the functionality. The main change was aimed to expand data set, which form the offers. The advanced filter for the results was also added based on different criteria (offers when switching supplier, offers with a fixed price for fixed period, best value for money, ...)

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

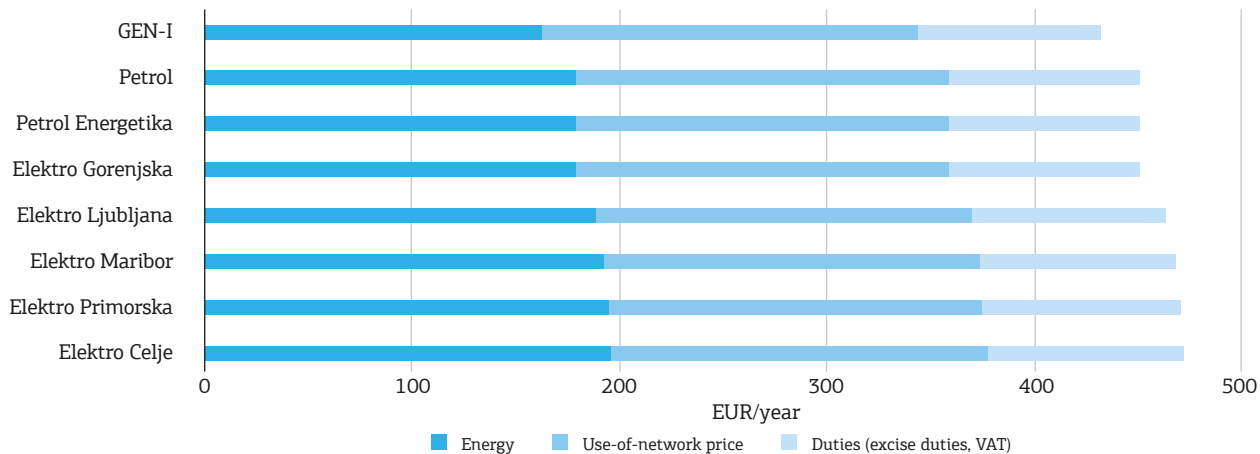
- D<sub>C</sub>: connected power 7 kW, high tariff consumption: 2200 KWh; low tariff 1300 kWh
- D<sub>D</sub>: connected power 7 kW, high tariff consumption: 5000 KWh; low tariff 2500 kWh
- D<sub>E</sub>: connected power 7 kW, high tariff consumption: 5000 KWh; low tariff 15000 kWh

Figure 47 shows the comparison between the offers from the suppliers of electricity. The amounts represent the annual cost of a standard household customer in the group D<sub>C</sub>, considering the best offer.

<sup>1</sup> Statistical Office of the Republic of Slovenia: Energy prices, Slovenia, 2<sup>nd</sup> half of 2010



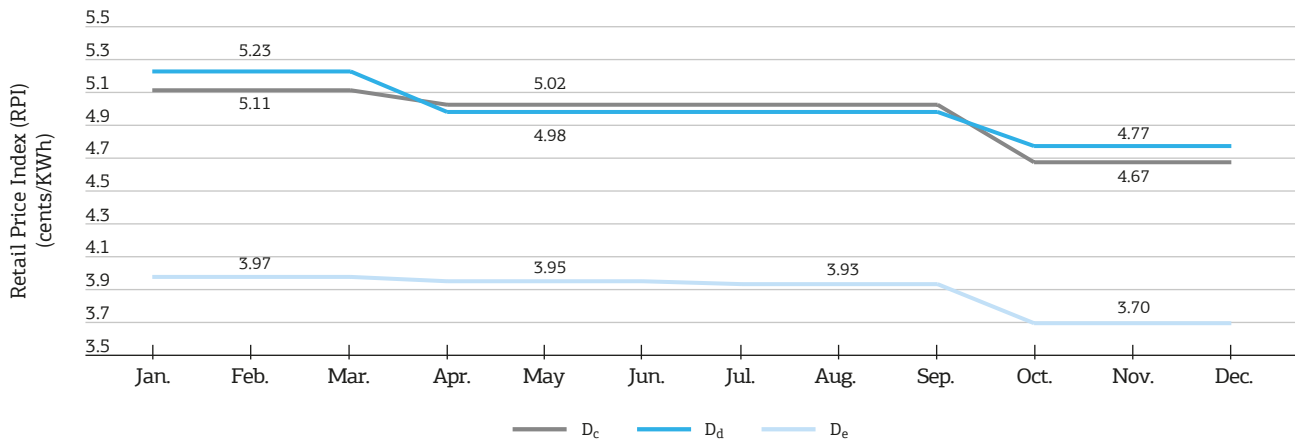
**Figure 47: The comparison of the best offers for the supplied electricity for the group D<sub>c</sub> (December 2010)**



Source: Energy Agency

The database of the web application the Comparison of suppliers offers data for monthly reports on prices for electricity, which are also published on the Energy Agency's website. Reports and indexes are shown in graphical form for the standard customers groups for households. The retail price index represents the lowest price for electricity of all valid offers of suppliers in a given period. Figure 48 shows that the retail price indexes indicate a decline in electricity prices.

**Figure 48: Retail price index for standard customer groups D<sub>c</sub>, D<sub>d</sub> and D<sub>e</sub> in 2010**



Source: Energy Agency

#### 4.3.2.4 The balancing

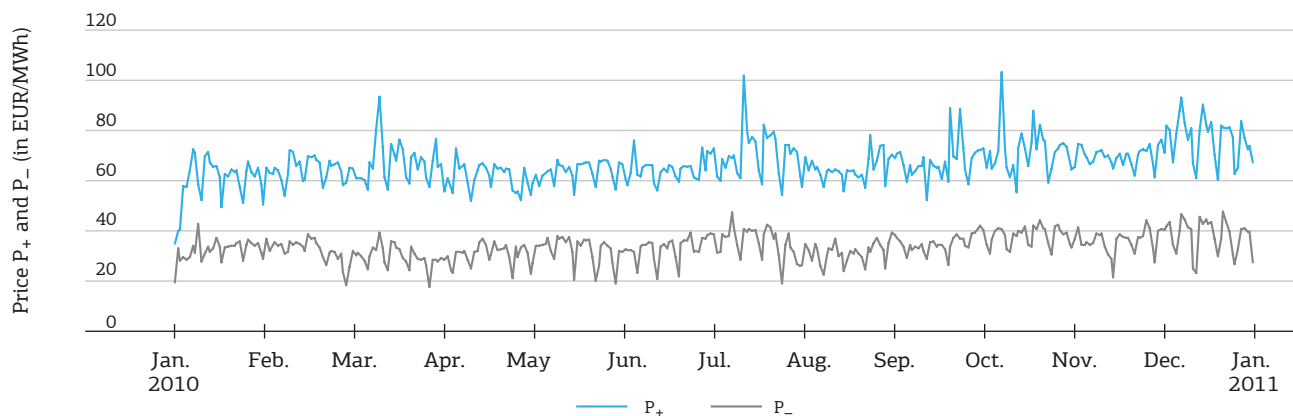
The transmission network operator - Eles is responsible for balancing the imbalances in the Slovenian network. Within a balance scheme, stipulated by the Rules Regarding the Operation of the Electricity Market (the Official Gazette of the Republic of Slovenia, 98/09), the balance-responsible parties 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 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 2010 the balancing market in Slovenia was not yet set up; for this reason the TSO did not have an option to buy and sell energy in the balancing market.

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 from 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.

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.

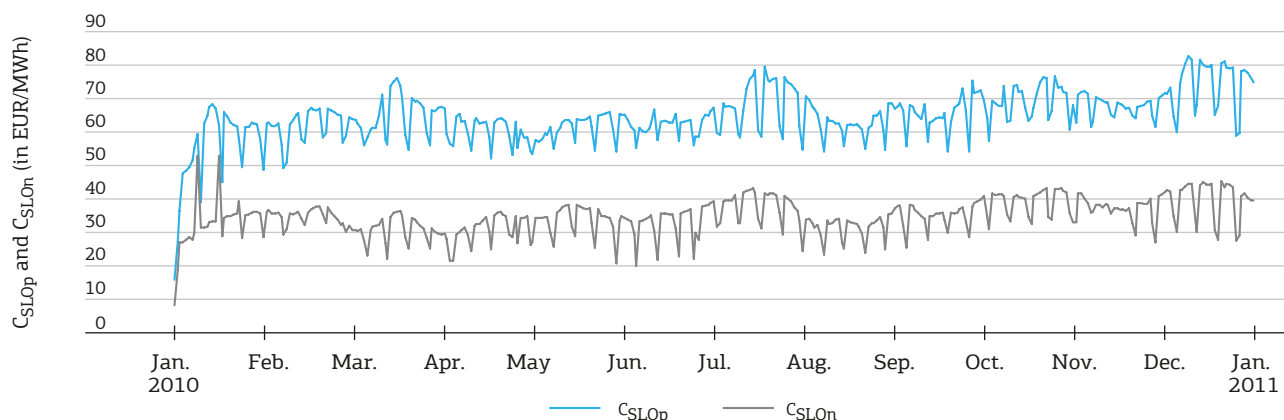
Figure 49 shows the movement of the prices ( $P_+$  and  $P_-$ ) in year 2010.

**Figure 49: Average daily values of the main imbalances prices  $P_+$  and  $P_-$  in 2010**



Source: Borzen

**Figure 50: Average daily values of indexes  $C_{SLOp}$  in  $C_{SLOn}$  in 2010**

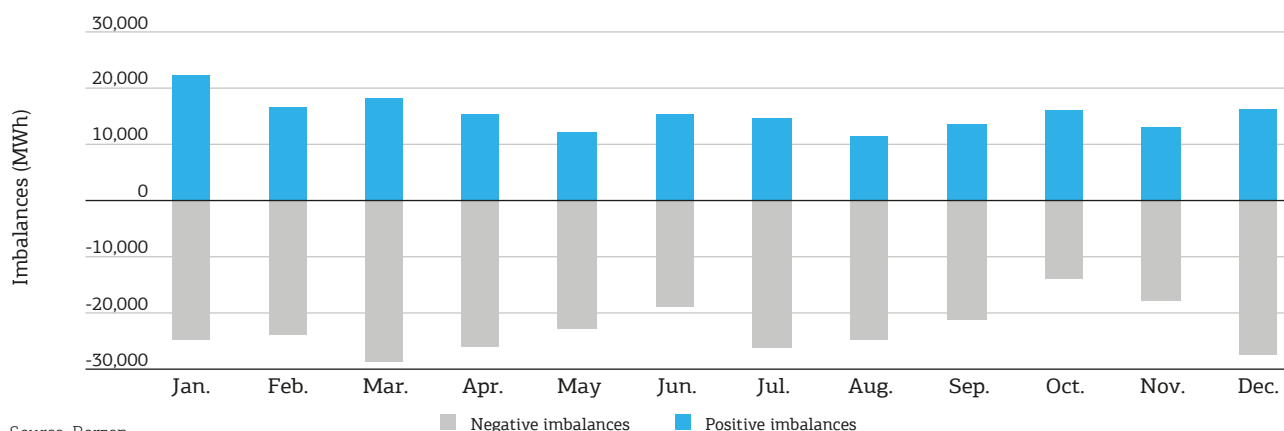


Source: Borzen

On 1 January 2010 new Rules for the Operation of the Electricity Market came into force. Changes were reflected in the amount of base price for imbalances; the differences in  $C_+$  and  $C_-$  were higher than in previous years. Average daily prices  $C_+$  and  $C_-$  in 2010 moved rather steadily and constantly. The average value of the basic price for the  $C_+$  was 66.85 EUR/MWh, and the average value of the basic price for the  $C_-$  was 33.69 EUR/MWh. During the year some jumps and drops in individual price occurred. The highest hourly values of  $C_+$  was 381.23 EUR/MWh, and the lowest value was 5.66 EUR/MWh.

The index of positive and negative imbalances  $C_{SLOp}$  and  $C_{SLOn}$  in 2010 replaced hourly index of electricity on the electricity market in Slovenia  $C_{SLOex}$ . Above mentioned indexes are determined on the basis of the average peer price  $C_+$  and  $C_-$  for working days, Saturday and Sunday or holidays, as defined in the Rules for the Operation of the Electricity Market. The average index values  $C_{SLOp}$  and  $C_{SLOn}$  in 2010 were 64.49 EUR/MWh and 34.64 EUR/MWh.

**Figure 51: Monthly imbalances of the Slovenian network in 2010 [in MWh]**



Source: Borzen

Figure 51 shows the total daily positive and negative imbalances of all the balance groups in Slovenia for 2010. The largest positive imbalances occurred in January, 22,381.47 MWh, and the smallest positive imbalances, 11,342.42 MWh, occurred in August. The largest negative imbalances occurred in December, amounted to 27,371.83 MWh, and the smallest in October, 14,080.10 MWh.

Deviations in the positive directions means the electricity deficit in the electricity power system, deviations in the negative directions represent surplus of electricity. The annual imbalances in 2010 amounted to 91,657 MWh.

In 2010 in the Slovenian wholesale market 2 groups less operated in comparison with the previous year. Some of the groups were reformulated; some started to operate as balance subgroups within other subgroups, some stopped with their work, while some are new. We can conclude that the development of the Slovenian wholesale market is stable, because there are no significant changes in the number of balance groups.

### **4.3.3 The measures taken to prevent any abuse of a dominant position and to ensure 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.

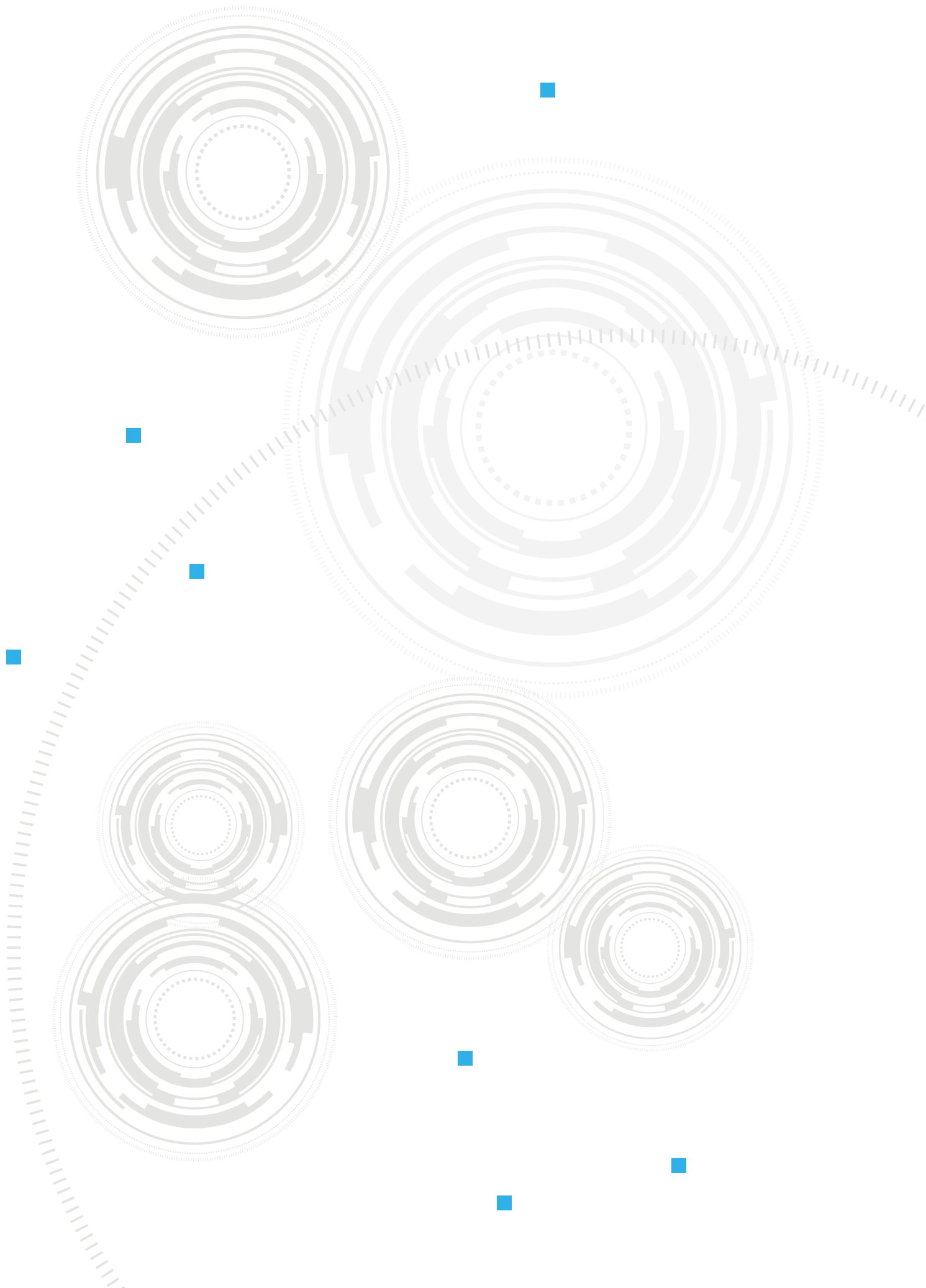
The Competition Protection Office did not initiate any other proceedings relating to the restriction of competition in the electricity market.

### **4.3.4 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 2010 the Energy Agency received 48 requests to decide on disputes, all of them related to electricity.

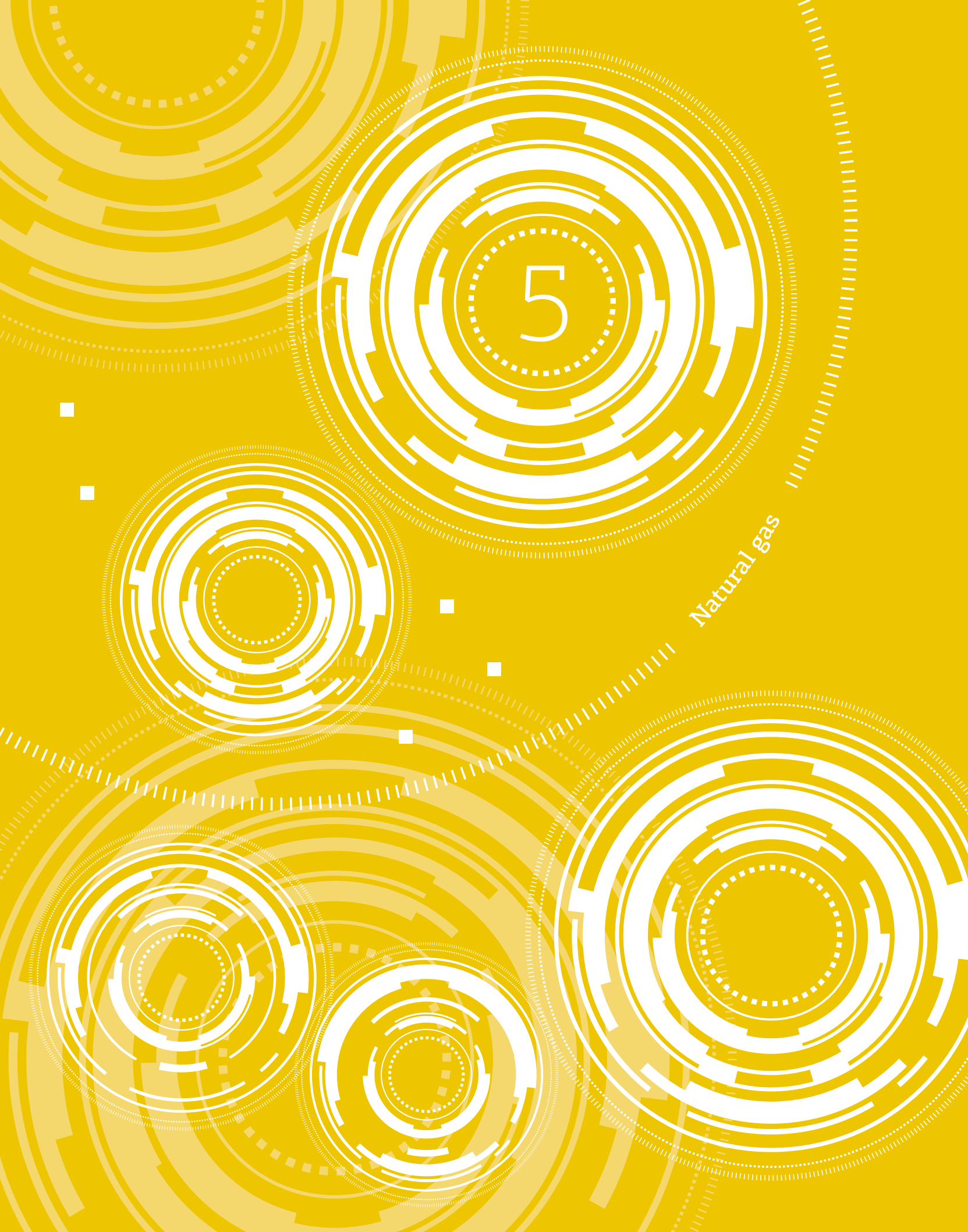
The content of the decisions has changed in the last three years. In 2008 most of the decisions were made with respect to the switching procedures, infringements of the general supply conditions and appeals against the issued connection approvals. Some disputes arose from the charged use-of-network prices, from established imbalances, and or infringements of the general acts regulating imbalances and their balancing. In 2009 and 2010 most of the decisions were made with respect to the appeals against the issued connection approvals.

Since 2005 the number of disputes submitted to the Energy Agency has risen by 100%. In 2005, 24 requests were submitted.



5

Natural gas

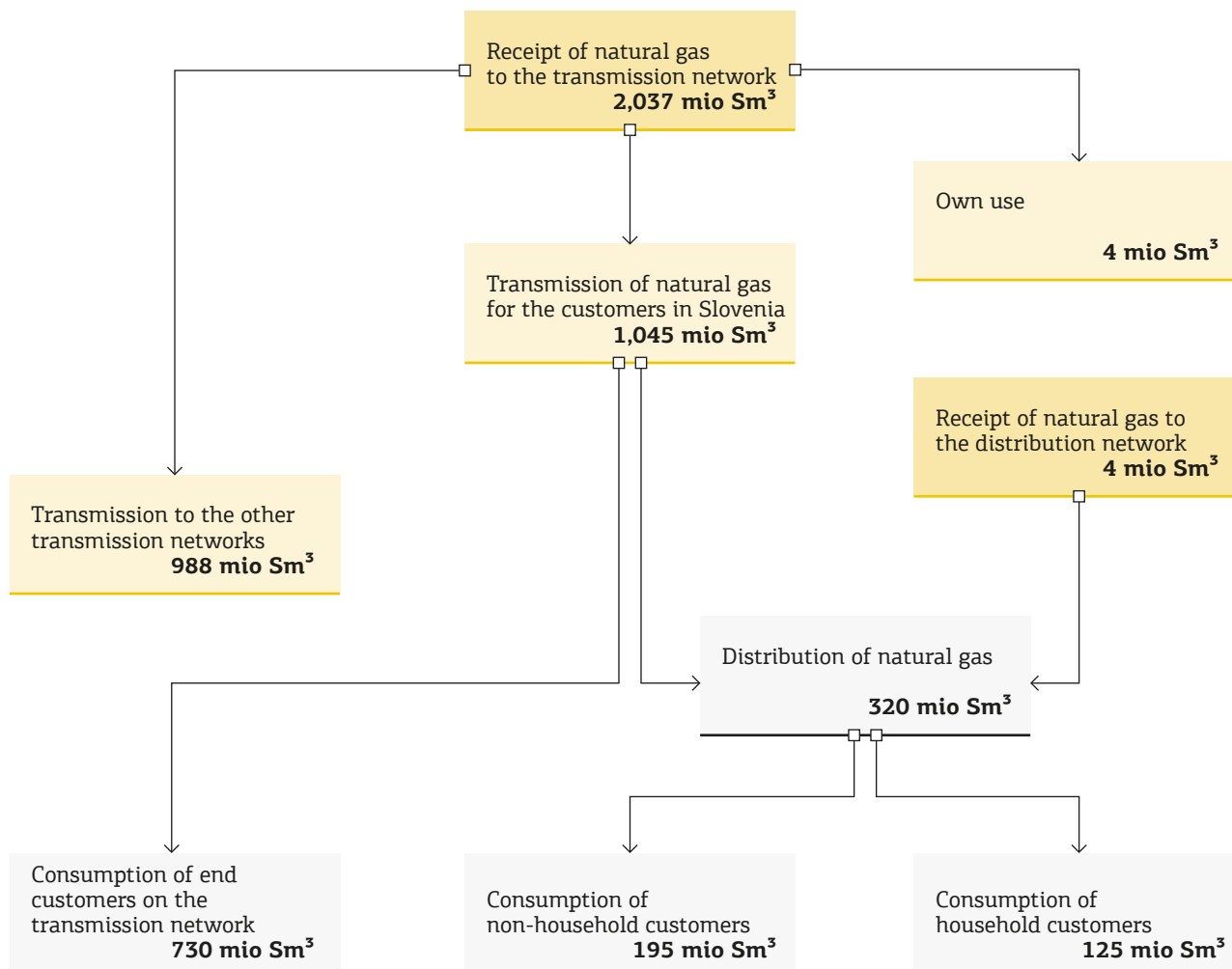


## 5.1 General information

The consumption of natural gas in Slovenia has stabilised in recent years; the consumption increased for 3% comparing to the previous year. Industrial customers used as much as 70% of the total amount of consumed natural gas.

The customers' demand for natural gas is covered by importing natural gas across the gas transmission network. Natural gas is transmitted to the customers in Slovenia across the transmission and distribution networks for natural gas.

**Figure 52: Basic details about the transmitted and consumed amounts of natural gas**



Source: Energy Agency

In 2010, most activities took place in the construction of a new transmission backbone, which will, in the coming years, significantly increase the capacity of the network.

Natural gas prices had in 2010 an upward trend. Compared to 2009, the final price for household customer increased by more than 20%.

**Figure 53: Trends of the prices for oil, oil products and the basic price of natural gas**

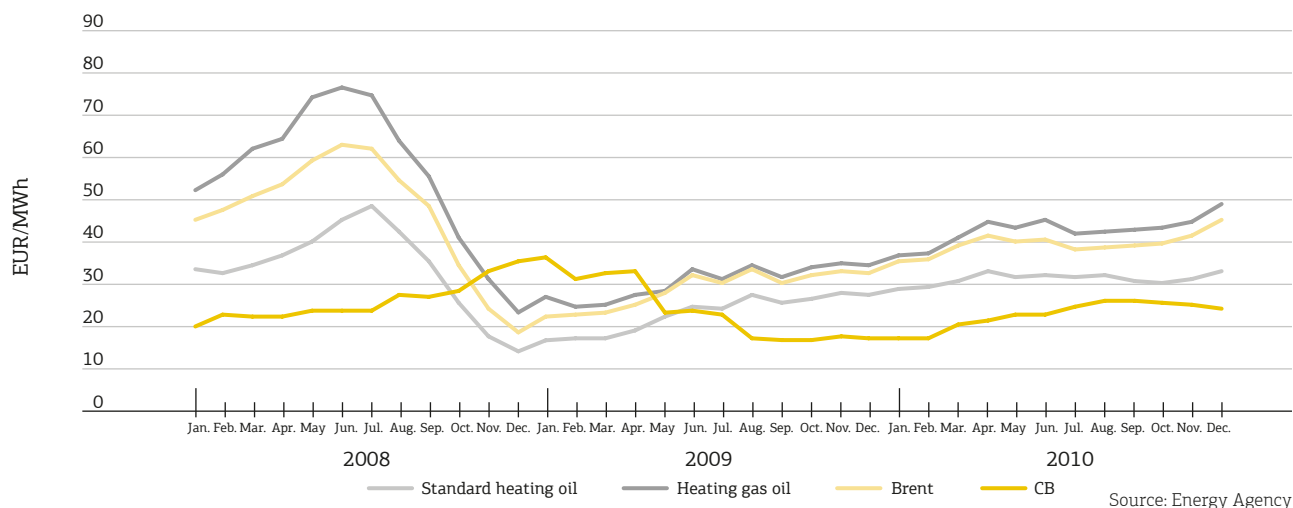


Figure 53 shows the trends of the prices for Brent oil, standard heating oil, heating gas oil and the basic price for natural gas on the transmission CB for 2008, 2009 and 2010. There is a noticeable connection between these trends.

Apart from the basic price for natural gas all other monitored prices after a strong rise and fall in 2008 gradually increased in 2009 and 2010. The basic price for natural gas which follows the trends of oil and oil products decreased in 2009, and due to higher oil prices increased in 2010. Movements of the prices were mostly affected by expectations for an end of recession and revitalization of the economy.

## 5.2 The regulation and the regulated services

Regulation is a process in which a regulatory institution formulates the rules for the operations of the regulated companies in such a way that they achieve, in a specified period, business, technical and other objectives set in advance. In 2009 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 2010 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 2010 was for the gas transmission network the last year when the network regulation was based on a one-year regulatory period.

### 5.2.1 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 Geoplin plinovodi, d. o. o. The tasks of the transmission system operator for natural gas arise from the provisions of the EA, the Ordinance Relating to the Operating Mode of the Public Service of the System Operator of the Gas Transmission Network, the System Operation Instructions for the Gas Transmission Network, and the General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network.



The regulated activity of operating the natural-gas distribution system was carried out as an optional local public service. In Slovenia, the following companies for natural-gas distribution provided this service in 2010:

- Adriaplin, d. o. o.
- Domplan, d. d.
- Energetika Celje, d. o. o.
- Energetika Ljubljana, d. o. o.
- Istrabenz plini, d. o. o.
- Javno podjetje Komunalno podjetje Vrhnika, d.o. o.
- Javno podjetje Komunala Slovenj Gradec, d. o. o.
- Javno podjetje plinovod Sevnica
- JEKO-IN, d. o. o., Jesenice
- Komunalno podjetje Velenje, d. o. o.
- Loška komunala, d. d.
- Mestni plinovodi, d. o. o.
- Petrol Energetika, d. o. o.
- Petrol, d. d.
- Plinarna Maribor, d. o. o.
- Plinstal, d. d.
- RP PLIN, d. o. o.

In addition to the operation of the natural-gas distribution system, the companies for natural-gas distribution also provided other energy-related or market-based services.

On 30 June 2010, the company Petrol, d. d., merged with company Petrol Plin, d. o. o., which was deleted from the Slovenian Business Register on 31 December. Petrol Plin, d. o. o., was 100-per cent owned by parent company Petrol, d. d. The Report on the Energy Sector in Slovenia in 2010 includes the same type of data for the company Petrol, d. d.

### **5.2.1.1 The transmission of natural gas**

Across the transmission network, 1045 million Sm<sup>3</sup> of natural gas were transported to the customers in Slovenia, which is 3.4% percent more than the previous year. The transport of natural gas to the neighbouring transmission networks was lower by 5.6% percent in comparison with 2009, of total amount of 988 million Sm<sup>3</sup> of natural gas, or 23.5% less than in 2008.

The transmission system operator provided for the transmission of natural gas across the high-pressure and medium-pressure gas networks. It operated, planned and maintained the transmission network for 17 distribution companies and 150 end customers, which was 11 end customers less than in 2009 and 12 less than in 2008.

#### **5.2.1.1.1 The gas transmission network**

In 2010, 4 kilometres of pipeline with a nominal pressure of more than 16 bars were built. The gas transmission network consists of 809 kilometres, the length of pipelines with a nominal pressure of less than 16 bars remained the same and it was 209 kilometres. The gas transmission network also consists of 197 metering-regulation stations, 43 metering stations, 4 reducing stations, a compressor station in Kidričevo and newly built compressor station in Ajdovščina, which was put into operation in August 2010.

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.

To cover the demand of the customers in Slovenia, in 2009 a total of 5,594,898 Sm<sup>3</sup> of capacities were leased on a daily basis. The transmission was carried out within the leased capacities. The expected transmission of 970 million Sm<sup>3</sup> of gas intended for the customers in Slovenia has been exceeded by 7.7%.

The transmission capacities were heavily used in winter period, especially the transmission path in the direction Ceršak-Rogatec and Rogatec-Vodice. The highest monthly utilization of this path was, at Ceršak, 90%, which was 1.6% higher than year before. The highest daily utilization was 98.7%, a little bit higher than in 2009.

The expected maintenance works on the transmission network caused supply interruptions totalling 76 hours. The longest time of an interruption was 16 hours and the shortest time was 8 hours. Due to force majeure one unexpected interruptions occurred, lasted one hour. The transmission system operator provided for a stable operation of the transmission network, and a reliable supply in line with contractual obligations.

#### 5.2.1.1.2 The business operation of the transmission system operator

The system operator obtained the revenues from the network charge for the gas transmission network, and other revenues related to the provision of its service. The system operator sets the network charge for the transmission network in the Act Setting the Network Charge for the Gas Transmission Network. In 2010 the network charge did not change.

The gas transmission system operator finished the financial year 2010 with a net profit of 7.1 million euros, which was 16.4% less than the year before. At the end of 2010 the company had 148 employees, or one less than in 2009.

#### 5.2.1.1.3 The ownership of the transmission system operator

The ownership of the transmission system operator has been the same since 1 January 2005, when Geoplin, d. o. o., set up Geoplin plinovodi, d. o. o. The system operator carried out the operational and organisational actions in line with Article 31b of the EA.

#### 5.2.1.1.4 The investments in the transmission network

In 2010 the transmission system operator allocated 43.4 million euros for the building and renovation of the transmission network, which was almost 2% percent more than the year before. The operator financed 29% of the investments by using the amortisation costs, 46%, or 20 million euros, by using commercial loans and the rest was financed from own sources.

Investment activities were mainly focused on increasing the current transmission capacities of the gas transmission network and facilitate the connection of new customers. For the first priority investments, which include facilities that have to be build due to full utilization of existing transmission capacities, 69% of the investment funds were spent.

**Table 24: Review of 1<sup>st</sup> priority activities related to the investments in the gas transmission network**

Facility	Activities in 2010
Pipeline M1/1 Ceršak-Kidričevo	Start of the construction, completion expected in 2011
Pipeline M2/1 Rogaška Slatina-Trojane Pipeline M2/1 Trojane-Vodice Compressor station Kidričevo 2 <sup>nd</sup> phase	Adoption of the ordinance on the national detailed plan, continuing the preparation of the project documentation and the purchase of land
Pipeline M5 Vodice-Jarše Pipeline R51 Jarše-TE-TOL	Continuing the preparation of the project documentation and the purchase of land
R25A/1 Trojane – Hrastnik	Continuing the preparation of the national detailed plan
Compressor station Ajdovščina	Completion of the trial operation and obtaining operating permit

Source: Geoplin plinovodi, Energy Agency

For the investments in diversified supply and cross-border transmission 5% of funds were spent. The investments of first and second priority are of strategic importance to the Republic of Slovenia. The remaining funds were allocated for the construction of the transmission network's facilities to end users, upgrades and for other activities.

Among main activities that will increase transmission capacities was the start of the construction of the pipeline Ceršak-Kidričevo, as well as obtaining the operating permit for compression station Ajdovščina, and completion of the four national detailed plans (pipelines Rogaška Slatina-Trojane, Trojane-Vodice, Novo mesto-Črnomelj and a compressor station Kidričevo – 2<sup>nd</sup> phase).

The elaborate on the possibility of underground storage of natural gas in Senovo was also completed. The findings show that geomechanics properties of the rock are inadequate for gas storage.

The investments in the gas transmission network are carried out on the basis of the long-term development plan prepared in 2009 by Geoplin plinovodi, d. o. o., approved of by the Ministry of the Economy. This plan applies to the period 2000–2018 and has been harmonised with the Resolution on the National Energy Programme.

In 2010, with the purpose of promotion of investments in the energy sector, the European Commission issued the transmission system operator a Decision on award of EU financial aid in the value of up to 40 million euros, of which 12 million euros TSO used for prepayment for investments in gas transmission network.

### **5.2.1.2 The distribution of natural gas**

The distribution of natural gas, carried out as a service of a gas distribution system operator, is an optional local public service. It can be organised within a public company established by a local community, or it is regulated with a concession act between the concessionaire and the local community as the awarding authority. 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 2010 there were 58 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 community this service was carried out in a different way. In 74 local communities, this service was carried out by 17 system operators of the distribution network. In another 10 local communities the concessions for the provision of the service of the gas distribution system operator were awarded; however, the gas distribution was not carried out, as the distribution networks had not yet been constructed.

**Table 25: Provision of the regulated service of operating a distribution network**

Company	Form of organisation	Municipalities in which service is carried out
Adriaplin	Concession	Ajdovščina, Bled, Brežice, Ptuj, Laško, Logatec, Kamnik, Krško, Nova Gorica, Radeče, Rogaška Slatina, Šempeter - Vrtojba, Šentjur pri Celju, Štore, Vipava, Vojnik, Zagorje ob Savi
Domplan.	Concession, contract	Kranj, Naklo, Šenčur (1 <sup>st</sup> area)
Energetika Celje	Public company	Celje
Energetika Ljubljana	Public company	Brezovica, Dobrova - Polhov Gradec, Dol pri Ljubljani, Ig, Ljubljana, Medvode, Škofljica,
Javno podjetje plinovod Sevnica	Public company	Sevnica
Istrabenz plini	Concession	Novo mesto
JEKO-IN	Public company	Jesenice
Javno podjetje Komunala Slovenj Gradec	Public company	Slovenj Gradec
Komunalno podjetje Velenje	Public company	Velenje, Šoštanj
Komunalno podjetje Vrhnika	Public company	Vrhnika
Loška komunala	Concession	Škofja Loka
Mestni plinovodi	Concession	Ormož, Lendava, Ljutomer, Murska Sobota, Polzela, Prebold, Radenci, Zreče, Žalec, Hrastnik, Središče ob Dravi
Petrol Energetika	Concession, investments of public capital in the activities of the private-law entities	Dravograd, Prevalje, Mežica, Ravne na Koroškem
Petrol	Concession	Domžale, Trzin, Mengeš, Beltinci, Cerklje na Gorenjskem, Gornja Radgona, Komenda, Odranci, Radovljica, Rogatec, Sežana, Slovenska Bistrica, Turnišče, Tržič, Vodice, Slovenske Konjice
Plinarna Maribor	Concession	Hoče - Slivnica, Maribor, Miklavž na Dravskem polju, Ruše, Šentilj
Plinstal	Concession	Žirovnica
RP PLIN	Concession	Šenčur (3rd area)

Source: Energy Agency

**Table 26: Local communities in which the services of operating a distribution network was not yet carried out in 2010, while the concession were awarded**

Company	Form of organisation	Municipalities in which the service is not yet carried out
Adriaplin	Concession	Gorje
Energetika Ljubljana	Concession	Log - Dragomir
Istrabenz plini	Concession	Litija, Koper
Mestni plinovodi	Concession	Križevci, Veržej, Razkrižje
Plinarna Maribor	Concession	Rače - Fram, Selnica ob Dravi, Starše

Source: Energy Agency

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 2010 Slovenia had a total of 4163 kilometres of gas-distribution pipelines with different pressure levels. The majority, as much as 48% of these lines, operate at a pressure between 100 millibars and 4 bars, and only one percent of the lines have a pressure of over 4 bars (Table 27). 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	1,998 km
Length of the network with pressure level up to 100 mbars	2,118 km
Number of metering stations	26
Number of metering-regulation station	135

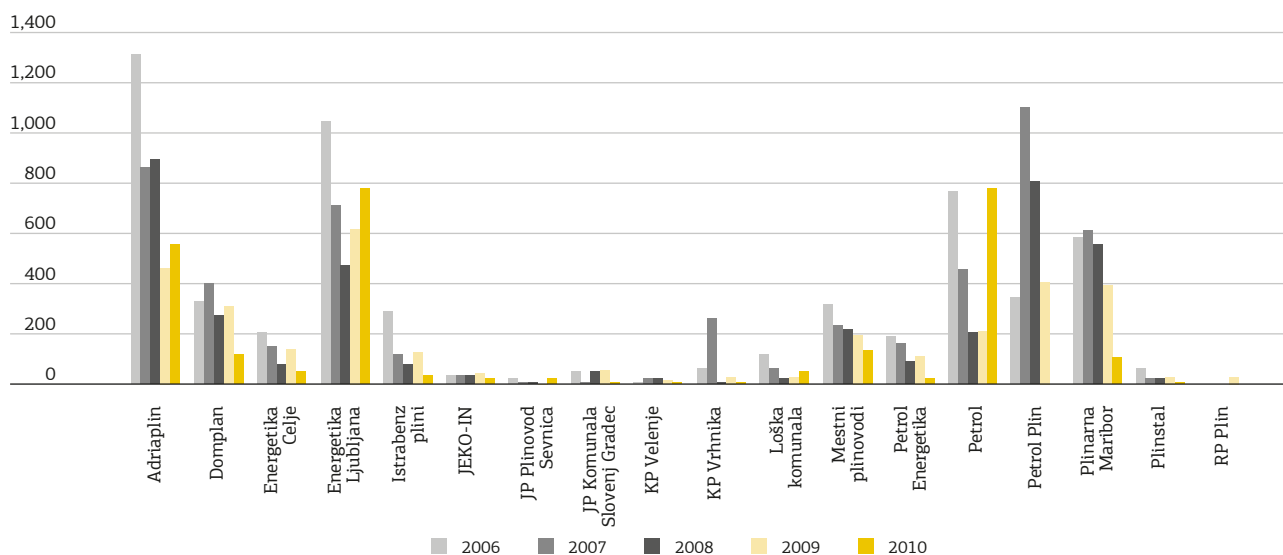
Source: Energy Agency

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 9 hours. There was a total of 488 unplanned maintenance work, in duration of 3 hours on average, and a total of 87 supply interruptions, the total duration of which was 200 hours.

### 5.2.1.2.1 The customers connected to the distribution network

In 2010 a total of 128,769 gas customers, in 74 local communities, were connected to all the distribution networks, which was 1.2% more than the year before. The distribution system operators distributed 320 million Sm<sup>3</sup> of natural gas to these customers, which represents an annual increase of 8.9%. The customers wishing to connect to a gas distribution network have to obtain the connection approval necessary for making a physical connection to a network. In 2010 the distribution system operators connected 2713 new customers, which was 12% less than in 2009.

**Figure 54: Numbers of new customers on the distribution networks for 2006-2010**



Source: Energy Agency

On average, the distribution system operators issue a connection approval in 25 days after the receipt of an application. At one system operator, the procedure, on average, lasted 74 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 2010 the use-of-network prices charged to the customers connected to a gas distribution network were regulated. The customers connected to the distribution networks use natural gas mainly for cooking, preparing hot water and heating. As much as 96% of customers use up to 4500 Sm<sup>3</sup> of natural gas per year; however, these customers consume only 36% of the total consumption of the customers connected to a distribution network.

### 5.2.1.2.2 The business operations of the distribution system operators

In 2010, 9 distribution companies had a total net profit of 5.2 million euros, the remaining 8 companies had a total net loss amounting to 0.52 million euros.

### 5.2.1.2.3 The ownership structure of the distribution system operators and the network ownership

The companies for gas distribution are mainly owned by one or more local communities and by domestic or foreign legal entities. Two system operators are without a majority owner, as they are owned by several individuals.

Distribution networks are mostly owned by the system operators. The system operators that in 2010 were not the owners of the distribution networks and had managed assets in line with the Slovenian Accounting Standard 35, settled, except in 2 local communities, the contracts with the owners of the networks.

**Table 28: Ownership structure of the companies for gas distribution**

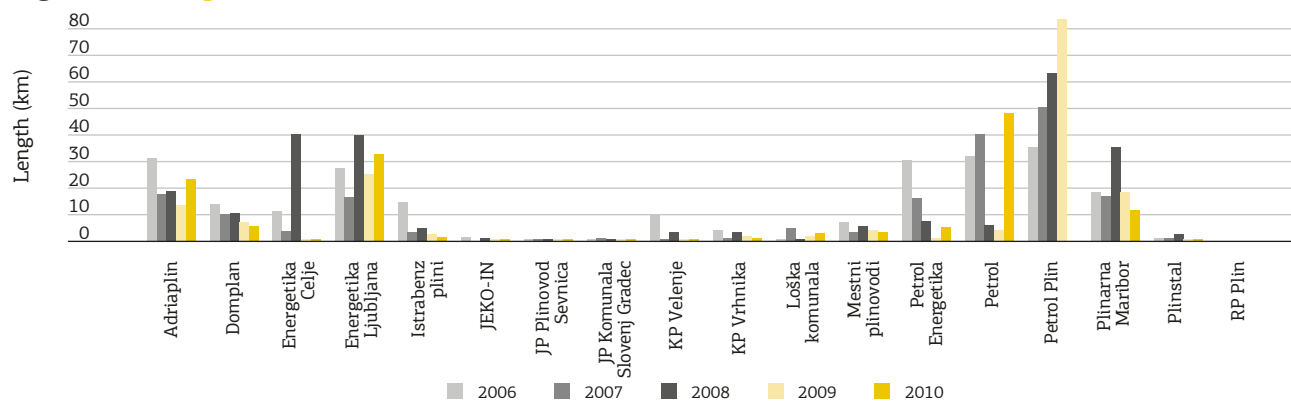
Ownership structure of the companies for gas distribution	Number of companies
Majority ownership of one or more municipalities	7
Majority ownership of a domestic legal entity	6
Majority ownership of a foreign legal entity	2
No majority owners	2
<b>Total</b>	<b>17</b>

Source: Energy Agency

### 5.2.1.2.4 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.

**Figure 55: Length of new distribution networks in 2006-2010**



Source: Energy Agency

A total of 138 kilometres of the new gas pipelines of the distribution networks were constructed, which was 18% less than in 2009 and 44% less than in 2008.

### 5.2.1.3 The network charges for the gas transmission and distribution networks

The price for the use of networks consists of the network charge and the supplement. 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.

As an integral part of the price for the use of networks, the network charge is used for financing the costs of the system operators and the costs of ancillary services.

#### 5.2.1.3.1 The network charge for the gas transmission network

The network charge for the transmission network consists of the following:

- the price for the transmission of natural gas set with respect to the leased annual capacity,
- the price for a company's own use,
- the price for making measurements.

The network charge for the gas transmission network 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.

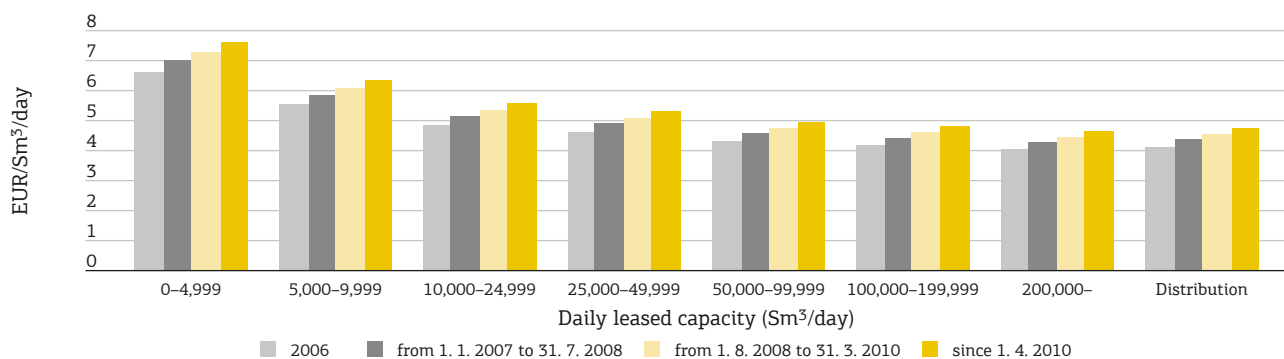
The foundations for setting the network charge are provided by the Act Determining the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for the Gas Transmission Network, and the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network. The methodologies were adopted by the Energy Agency after obtaining approval from the government.

The methodology for setting the network charge determine the mode, conditions and method of setting the network charge, and the criteria for establishing the eligible costs of the system operator. The method of price capping is used when setting the network charge. The regulatory period is determined as a period of one year. Return on the new network's investments equals the return on the current assets. When establishing eligible costs in 2010, operating expenses, the costs for the gas losses in a network, the amortisation costs, and the system operator's return on assets were considered.

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 network charge. The charge depends on the leased contractual transmission capacity, the transported amount of natural gas and the type of metering device used.

Trends of the prices for the gas transmission by customer group from 2006-2010 are shown by the diagram in Figure 56.

**Figure 56: Trends of the prices for the gas transmission by customer group for 2006-2010**



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 ( $\text{Sm}^3/\text{day/year}$ ). On 1 April 2010, after Energy Agency gave approval to these prices, the transmission system operator of natural gas changed the prices for gas transmission, applicable from 1 August 2008. The prices reflect the eligible costs of the system operator, though they were not set on the basis of benchmarking foreign system operators' prices.

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

### 5.2.1.3.2 The network charge for the gas distribution networks

The network charge for a distribution network consists of the following elements:

- the price for the distribution of natural gas,
- the price for measurements.

The network charges for the distribution networks also include the costs related to the use of the transmission network.

The system operator set the network charges for the gas distribution networks with the Act Setting the Network Charge for the Gas Distribution Network relating to an individual local community. The basis for the setting of a network charge is provided by 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 methodologies were adopted by the Energy Agency, after obtaining approval from the government.

The methodology for setting the network charge determine the mode, conditions and method of setting the network charge, and the criteria for establishing the eligible costs of the system operator. The regulatory period is determined as a period of one year. The method of price capping is used when setting the network charge, which means that the network charges for the distribution networks are unified for individual areas that the local authorities determine as the area in which the optional local public service of operating the distribution network is provided. 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.

In 2010 a total of 12 acts setting the network charges for the gas distribution networks were implemented in 49 local communities.

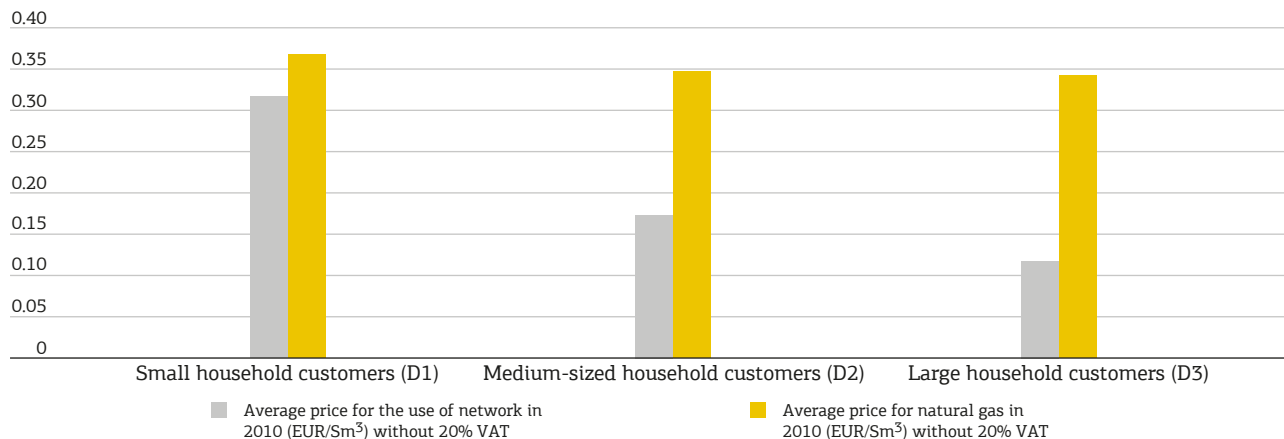
The publishing of an act setting the network charge provides the basis for disclosing the use-of-network price separately from the price for natural gas on the customers' bills. In 2010 all gas distribution system operators provided for a separate disclosure of the use-of-network price on the bills issued to its customers.

The network charges for the gas distribution networks are not the same for all typical customers in different distribution areas, as their prices reflect different costs of the system operators in individual areas.

Figure 57 shows different average prices for the use of the network and average prices for natural gas in 2010 for 5 largest suppliers which are also the system operators of the distribution networks.



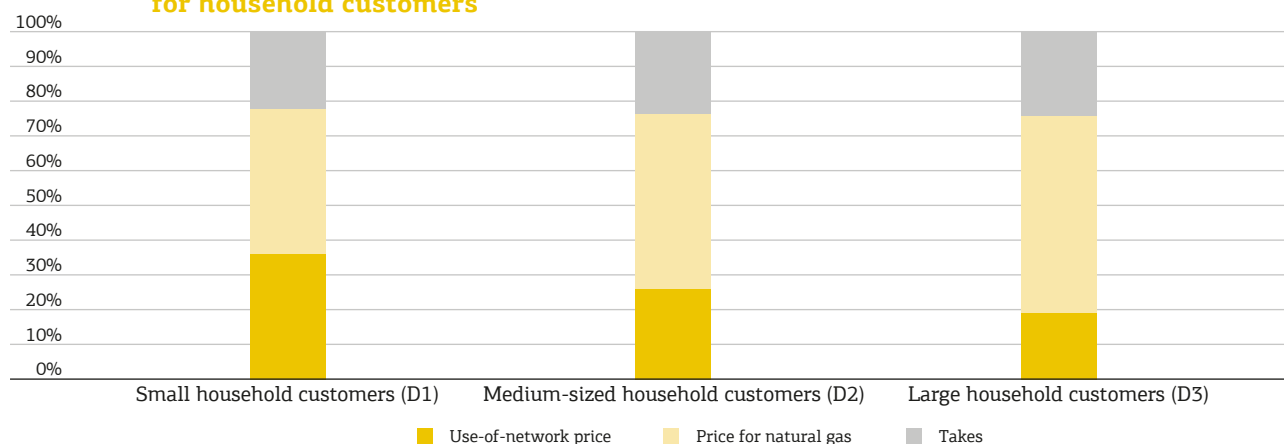
**Figure 57: Average prices for the use of the network and average prices of natural gas in 2010 for household customers**



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<sub>2</sub>, excise duty, supplement for increasing efficiency, and value added tax, accounting to 22% of the final price. For the household customer the price for natural gas represents from 42 to 56% of the final price, and the use-of-network price from 19 to 36% of the final price.

**Figure 58: Average prices for the use of the network and average prices of natural gas in 2010 for household customers**



Source: Energy Agency

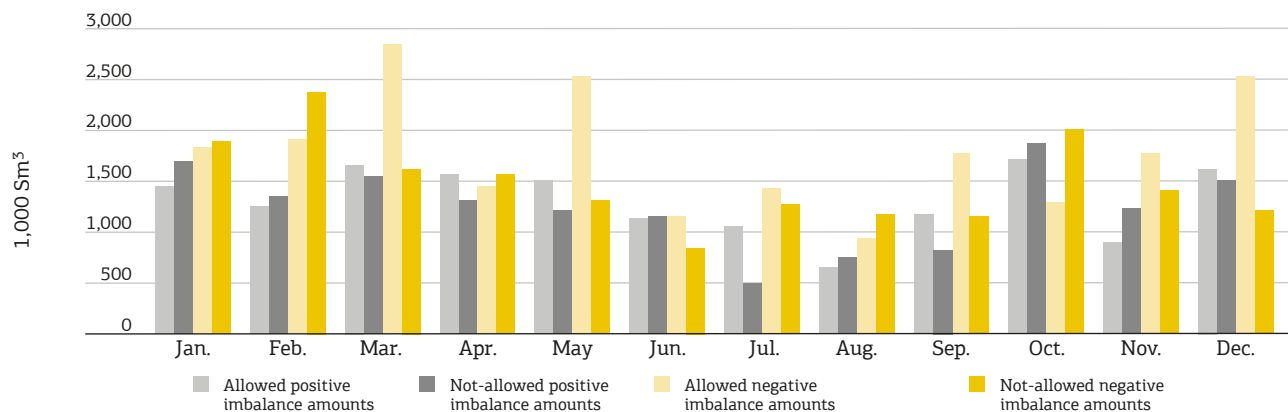
#### 5.2.1.4 The balancing

In 2010 Geoplin, d. o. o. and Adriaplin, d. o. o. 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.

Establishing, charging for and balancing of the above imbalance amounts, as well as ensuring the required amounts of natural gas for the transmission system operator's own use were, in 2010, carried out in line with the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network.

For household customers the amounts of gas required for balancing imbalance amounts on daily basis amounted to 2.9%, and for balancing the transmission network 3.8% of the Slovenian annual gas consumption in 2010.

**Figure 59: Amounts of natural gas required for balancing imbalance amounts**

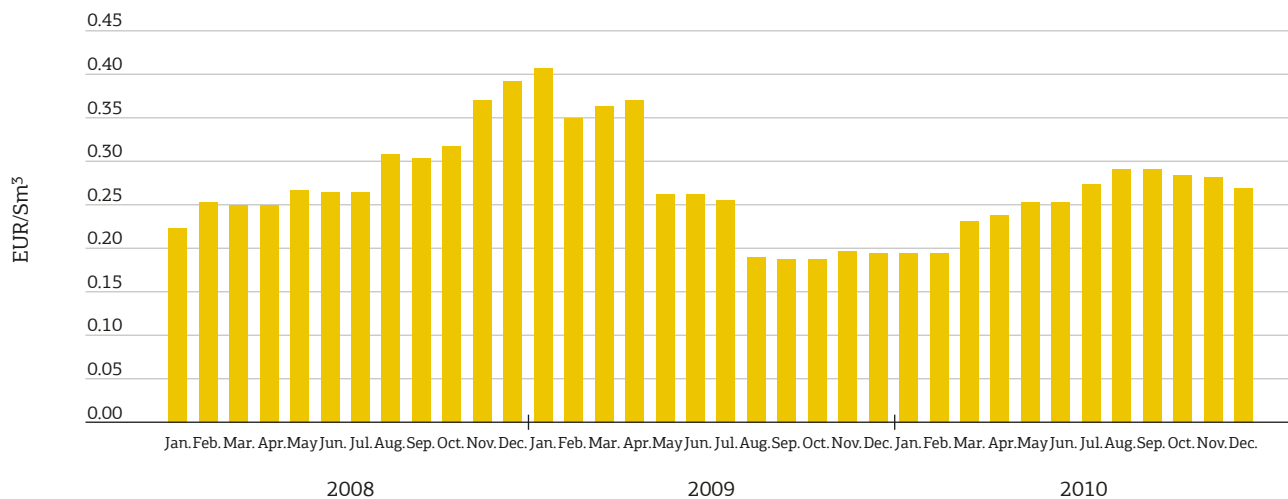


Source: Energy Agency

On the basis of the system of equations the accumulate difference in amount of 4.5 million Sm<sup>3</sup> was established, representing 0.43% of the transferred quantities of natural gas in Slovenia.

The ground for settlement of imbalances is the basic price for natural gas (Figure 60), which was in 2010 on average 0.2546 EUR/Sm<sup>3</sup>.

**Figure 60: Movements of the prices for natural gas for the company's own use and for balancing imbalance amounts from 2008-2009**



Source: Energy Agency

The transmission system operator charged the users of the transmission network for the amounts of gas required for the transmission system operator's own use (fuel for the compressors, technological gas for heating) on the basis of the monthly deliveries at the regulated price (CB).

### 5.2.1.5 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 29 shows the trading of spare capacities in the secondary market in 2010.

**Table 29: Trading of spare capacity in the secondary market in 2010**

Number of suppliers of spare capacity	16
Number of bids	22
Total amount of spare capacity in Sm <sup>3</sup> /day	1.924.583
Number of enquirers for spare capacity	8
Number of enquires	10
Total amount of enquired capacity in Sm <sup>3</sup> /day	116.383
Number of contract for sublease	10
Total amount of subleased capacity in v Sm <sup>3</sup> /day	116.383
Number of refused sublease	0

Source: Energy Agency

The average leased period of spare capacity was 8 months, the average leased capacity amounted to 11,638 Sm<sup>3</sup>/day.

## 5.2.2 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 17 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 2010 we did not notice any special effects of legal unbundling on the investments and supply reliability in comparison with the previous years. The investments in the gas transmission network are described, in detail, in section 5.2.1.1.4.

None of the 17 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 5.2.1.2.3 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.

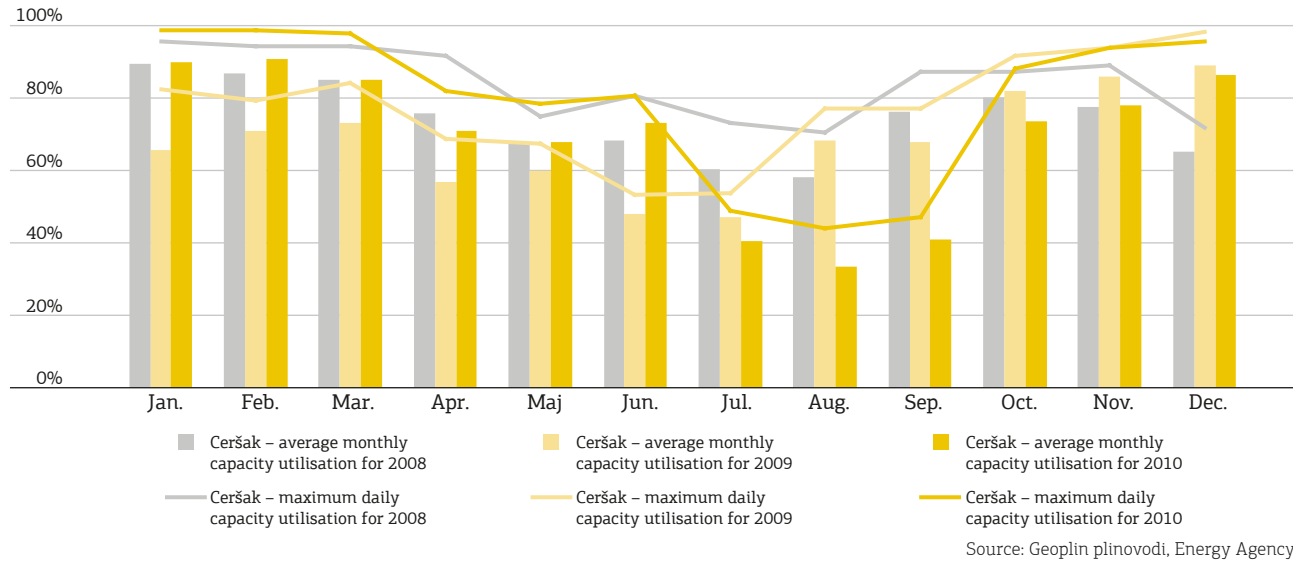
## 5.2.3 The allocation of cross-border transmission capacities

### 5.2.3.1 The cross-border transmission capacities of the network

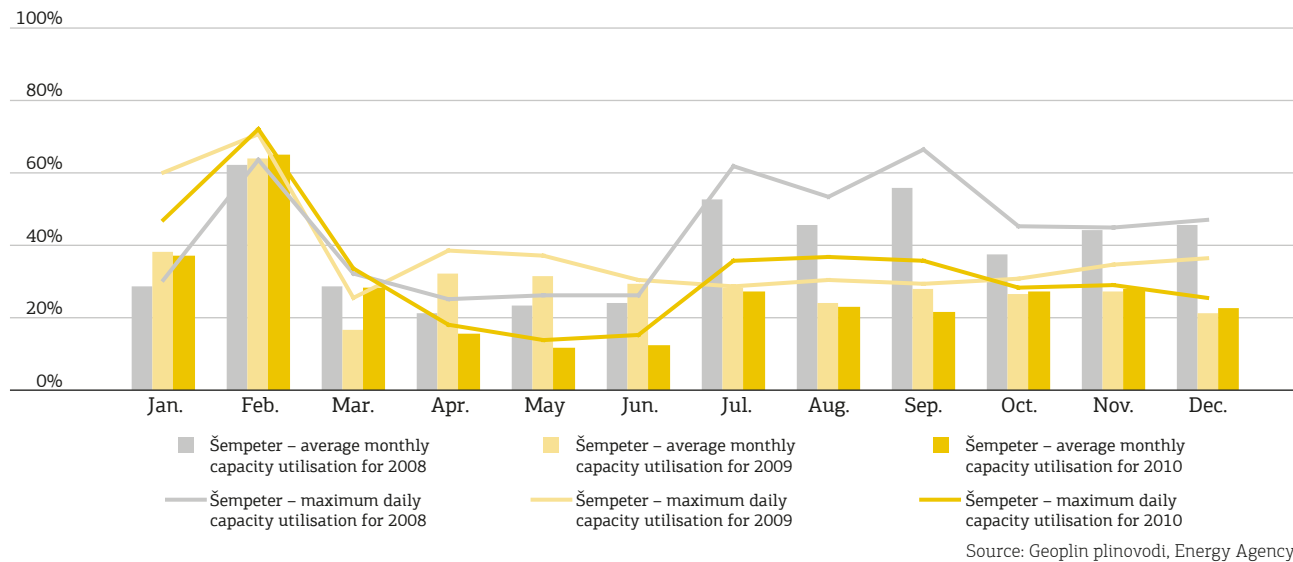
The cross-border transmission capacities are used for the provision of a reliable supply with natural gas in Slovenia and for the transit of natural gas. In 2010 the utilisation of the metering-regulation station in Ceršak increased by almost one percent compared with previous year, while in metering-regulation station in Šempeter and Rogatec decreased by almost 3%. Decreased in both stations was noticed at the end of heating season 2009/2010, and increased again at the beginning of heating season 2010/2011.

In 2010 the average annual utilisation of the capacity of the most important border-entry metering-regulation station, Ceršak, was 69-percent, the average monthly utilisation of the entry-exit station Šempeter was 26.6-percent, and Rogatec amounted to 53.9%. Figures 61 to 63 show the highest daily utilisation and the average monthly utilisation of individual border metering-regulation stations.

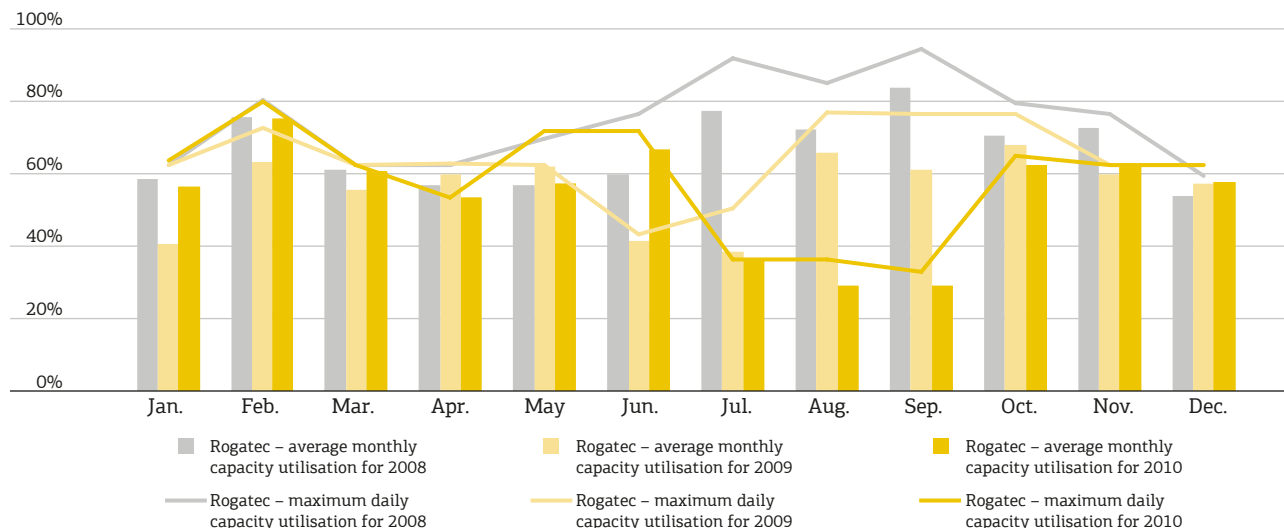
**Figure 61: Maximum daily and average monthly capacity utilisation of the metering-regulation station Ceršak**



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



**Figure 63: Maximum daily and average monthly capacity utilisation of the metering-regulation station Rogatec**



Source: Geoplin plinovodi, Energy Agency

### 5.2.3.2 The methods of setting the maximum technical capacity

The maximum technical transmission capacity is the one that is physically available for the transmission of natural gas from a selected entry point to an exit point. When setting the maximum technical capacity the 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.

### 5.2.3.3 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) 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 2010 the transmission system operator had 150 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 network access.

In the primary market of the transmission capacities, 3 contracts for short-term network access were concluded between the system operator and the network users.

## 5.2.4 The congestion-management mechanisms

Congestion on the transmission network can be contractual or physical. Contractual congestion occurs when the network users wish to make contracts for transmitting amounts of gas larger than allowed by the network. On the other hand, physical congestion occurs when the actual supply requires all of the technical network's capacities.

In the transmission network the contractual congestion (demand for capacity exceeds the technical capacity) is not such problem as in fact already achieved physical congestion of the most congested transmission lines (actual deliveries already are meeting technical capacities).

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.

The highest capacity utilization in 2010 remained in the direction Ceršak-Rogatec. Leased transmission capacities in the MRS Ceršak meet currently available technical capacity, but actual transmitted amounts in January and February show the possibility of physical congestion, since the highest daily utilisation of capacity in January was almost 98.7%, and the average monthly utilisation of capacity in February 90.4% 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; consequently, within current investment program the transmission system operator resolves 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 (Section 5.2.1.5) allowing the users of the gas transmission network to trade, among themselves, with small amounts of leased and unused transmission capacities.

## 5.3 The market-based activities and competition

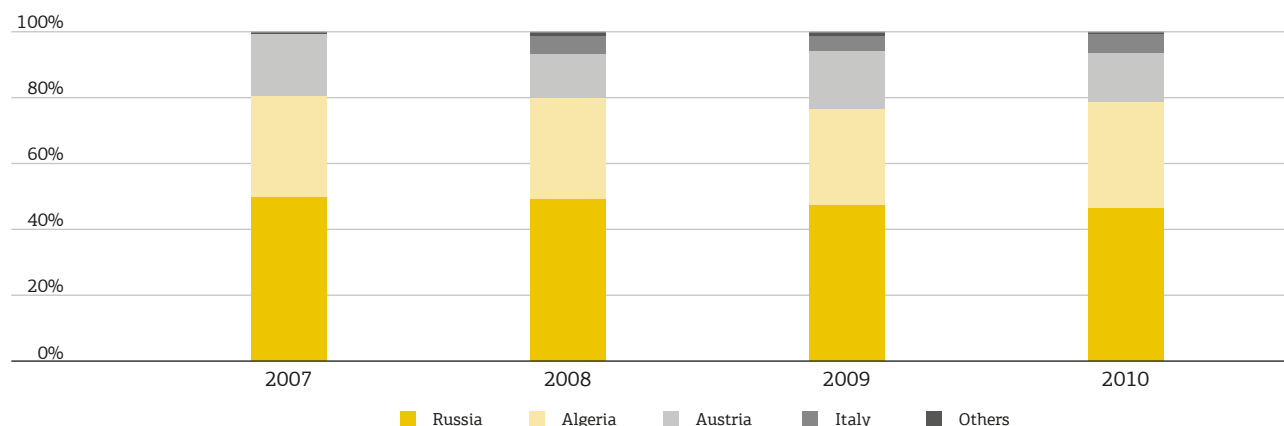
The liberalization of the gas markets in Slovenia and other EU members allows customers to choose their suppliers, who operate in a competitive market, and suppliers to operate on the market under fully competitive condition.

In 2010 there were 19 suppliers selling natural gas to 128,919 end customers. The number of switches increased, but the proportion of customers who switched supplier, is still below 0.2%.

### 5.3.1 The sources of natural gas and the wholesale market

Slovenia does not have its own natural gas resources. In 2010 most of it, as much as 47% was supplied from Russia, 33% from Algeria, 15% from Austria, 5% from Italy and 3% from other countries.

**Figure 64: Sources of natural gas**



Source: Companies' data

The suppliers imported 1043 million Sm<sup>3</sup> of natural gas, which was 2.5% more than the year before. 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 2008 and 2010 in Sm<sup>3</sup>**

Supplier	2008	2009	2010
Geoplin	1,018,856,140	967,668,943	982,384,614
Adriaplin	54,337,731	46,854,189	56,982,045
Petrol	3,430,474	3,371,134	3,959,838
<b>Total</b>	<b>1,076,624,345</b>	<b>1,017,894,266</b>	<b>1,043,326,497</b>

Sources: Companies' data, Energy Agency

The largest importer, trader and supplier of natural gas in 2010 was still Geoplin, d. o. o. Its share of the total imports decreased by almost one percent to 2009, and was 94.2%. The share of the other two suppliers, Adriaplin, d. o. o., and Petrol, d. o. o., was less than 6%. Adriaplin, d. o. o., began to operate in the Slovenian market on 1 January 2008. Petrol, d. o. o., imported natural gas for its customers from Italy and Croatia through the two distribution networks, which are not connected to the gas transmission network.

In comparison with the previous year, the structure of long-term and short-term contracts changed significantly. Last year only one percent of natural gas was imported on the basis of short-term contracts, in 2010 as much as 12% of natural gas was imported on the basis of such contracts.

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, d. o. o., by 70.41%. Table 31 shows the market shares and the HHIs for the wholesale market, which was 5748.

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

Wholesale market	Share
Geoplin	70.41%
Petrol Energetika	28.11%
Enos	0.80%
Geocom	0.54%
Istrabenz plini	0.14%
<b>Total</b>	<b>100.0%</b>
<b>HHI of the wholesale market</b>	<b>5,748</b>

Source: Companies' data, Energy Agency

The conditions in the market did not change in comparison with previous year, and there is no organised gas market in Slovenia, where the demand for and the supply of certain standard products would meet.

Almost 347 million Sm<sup>3</sup> of natural gas was sold in the market, less than one percent on the basis of short-term contracts.

No gas-release mechanisms were introduced.

### 5.3.2 The supply and the retail market

The participants in the Slovenian retail market are the suppliers and end customers of natural gas. In 2010 the new supplier – Energetika Maribor entered the market. The shares of the suppliers did not change. Geoplin, d. o. o., had a 70-percent share of the Slovenian retail market, while the suppliers to the customers on the distribution networks had a total of 30% of the 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 4969.

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	69.54%
Energetika Ljubljana	7.58%
Plinarna Maribor	5.44%
Adriaplin	5.31%
Energetika Celje	2.58%
Others	9.55%
<b>Total</b>	<b>100.00%</b>
<b>HHI of the retail market</b>	<b>4,969</b>

Source: Companies' data, Energy Agency



### 5.3.2.1 The customers connected to the transmission network

In 2010 a total of 150 large industrial customers consuming 730 million Sm<sup>3</sup> of natural gas were connected to the transmission network. Geoplin, d. o. o., had more 96-percent share of the supply to the customers connected to the transmission network.

As the supply continued to be reliable and there was no abuse of the dominant position of Geoplin, d. o. o., no measures for the promotion of competition, such as a programme for releasing long-term supply contracts, were taken.

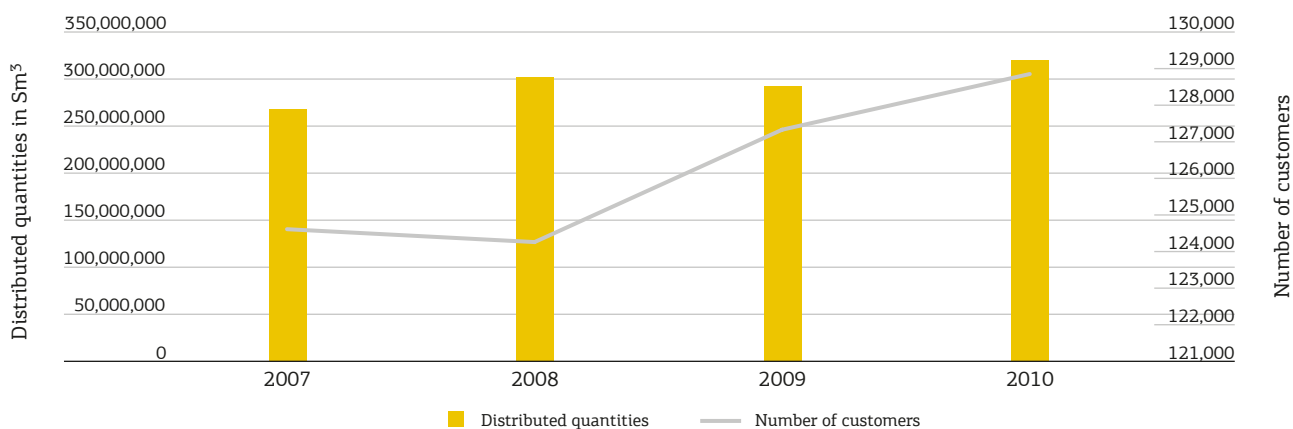
In 2010, none of the customers connected to the transmission network switched the supplier.

### 5.3.2.2 The customers connected to the distribution networks

Due to the merger of Petrol Plin, d. o. o., with the company Petrol, d. o. o., at the end of 2010 there were 17 distribution companies operated in the Slovenian gas market, and by that also one supplier to the customers on the distribution network less.

A total of 128,769 customers on the distribution network were supplied with 320 million Sm<sup>3</sup> of natural gas, which was 9.3% more than the previous year. Consumption increased at household and non-household customers. The number of customers increased by one percent, thus higher consumption was the consequence of increased consumption of natural gas for heating.

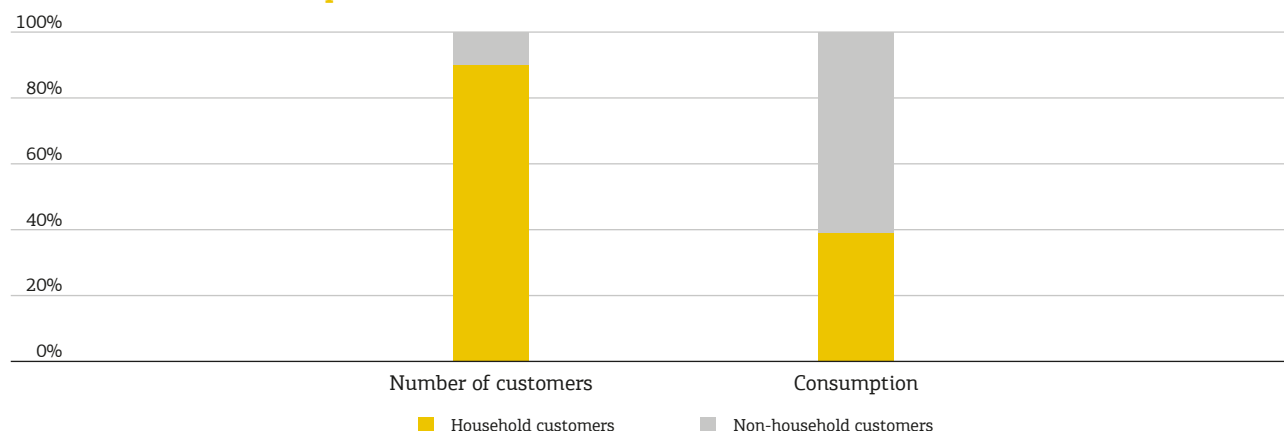
**Figure 65: Movement of the distributed quantities and the number of customers on the distribution**



Source: Companies' data, Energy Agency

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 customers connected to the distribution networks.

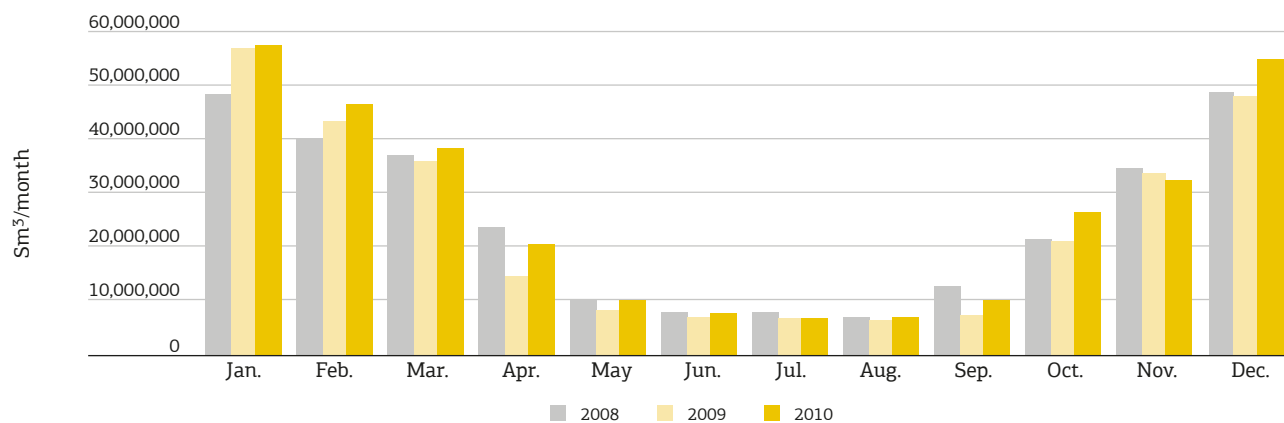
**Figure 66: Ration between the number of customers connected to the distribution network and their consumption**



Source: Companies' data, Energy Agency

Figure 67 shows the movements of gas consumption on the distribution networks by months.

**Figure 67: Movement of gas consumption on the distribution network by months in years from 2008 to 2010**



Sources: Companies' data, Energy Agency

Natural gas was being supplied by public and private companies for distribution. Company Adria-  
plin, d. o. o., is affiliated with Geoplin, d. o. o., which has 11-percent share in Adria-  
plin.

The activities of the market for natural gas are reflected also by the number of customers  
that switched supplier. In comparison with 2009, when only 126 out of 127,510 customers con-  
nected to the gas distribution networks switched supplier, in 2010 there were 188 switches (a  
total number of customers was 128,769). The expected annual consumption of the customers  
that changed supplier was in previous year 9.5 million Sm<sup>3</sup>, and in 2010 little less, 6.8 million  
Sm<sup>3</sup>. The share of customers that switched supplier is only 0.15%, and the share of their con-  
sumption 2.12%.

### 5.3.2.3 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 the 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 frac-

tions 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 2010 was marked by continued increase in the gas prices for all standard groups of customers in Slovenia.

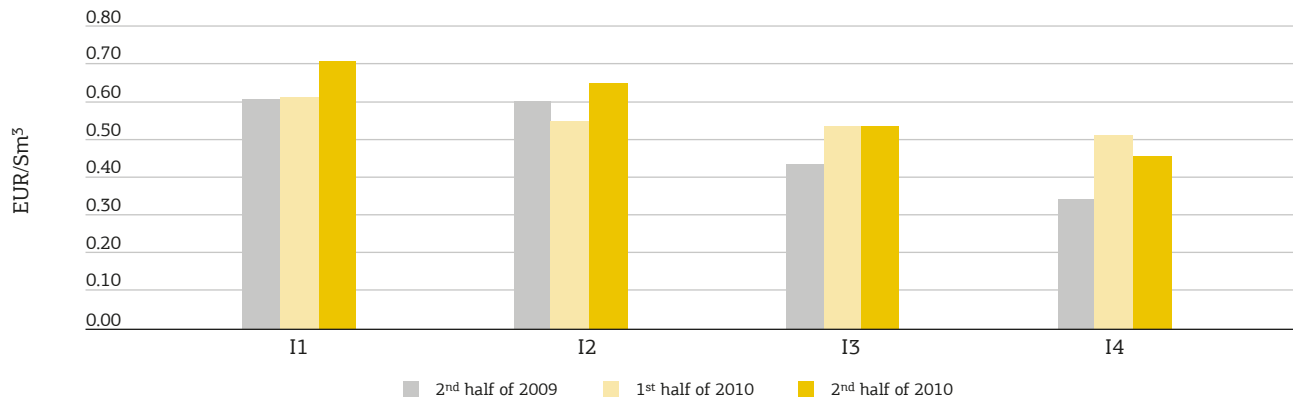
Industrial customers of natural gas have been classified in following standard customer groups, having been defined with respect to the interval of an annual consumption.

**Table 33: Standard customers groups of industrial customers**

Group	Consumption	
	from	to
I1	–	26,435 Sm <sup>3</sup>
I2	26,435 Sm <sup>3</sup>	264,349 Sm <sup>3</sup>
I3	264,349 Sm <sup>3</sup>	2,643,489 Sm <sup>3</sup>
I4	2,643,489 Sm <sup>3</sup>	26,434,886 Sm <sup>3</sup>
I5	26,434,886 Sm <sup>3</sup>	105,739,542 Sm <sup>3</sup>

Source: Statistical Office of the Republic of Slovenia

**Figure 68: Final gas prices for industrial customers including VAT and other taxes**

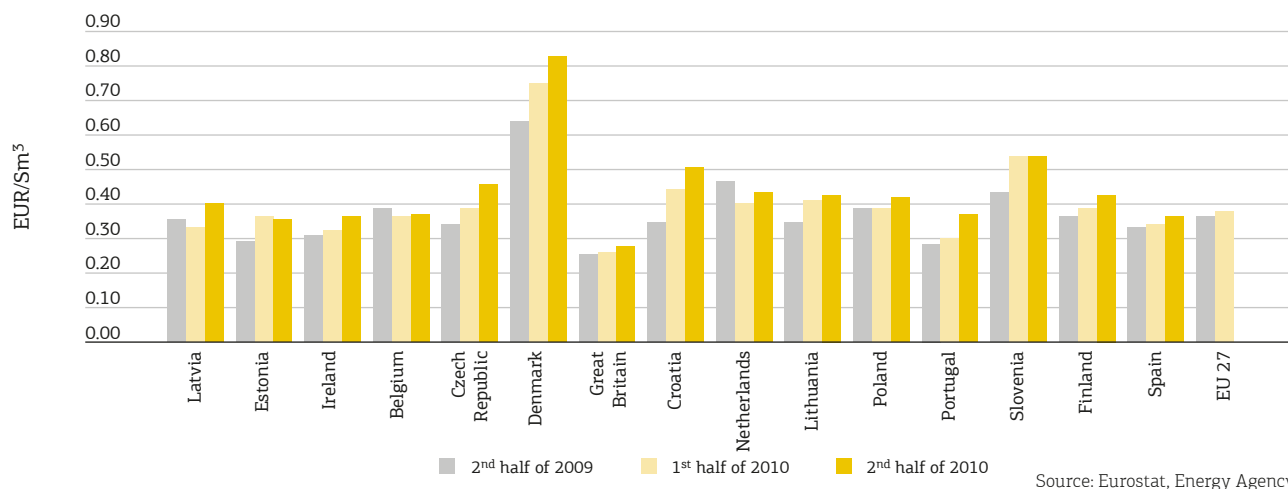


Source: Statistical Office of the Republic of Slovenia, Energy Agency

Figure 68 shows the trends of the gas prices by groups of the industrial customers of natural gas for the period starting in the middle of 2009 and finishing at the end of 2010. Decrease in the prices for all groups is noted.

In 2010 the prices of natural gas compared to the year 2009 did not change the same for all customer groups, since the highest price increase was seen for the largest customers. In 2010 prices again approached to the highest prices from the end of 2008.

**Figure 69: Final gas prices including VAT and other taxes for typical industrial customers I3 in Slovenia and some other EU countries**



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<sup>3</sup> of gas in the second part of 2009 and in 2010. According to Eurostat at the time of preparation of this report the information for the second part of 2010 was not available. The average gas price in EU countries was 0.37 EUR/Sm<sup>3</sup> of gas and in Slovenia was higher, 0.44 EUR/Sm<sup>3</sup> of gas. The highest average price had Denmark – 0.64 EUR/Sm<sup>3</sup> of gas.

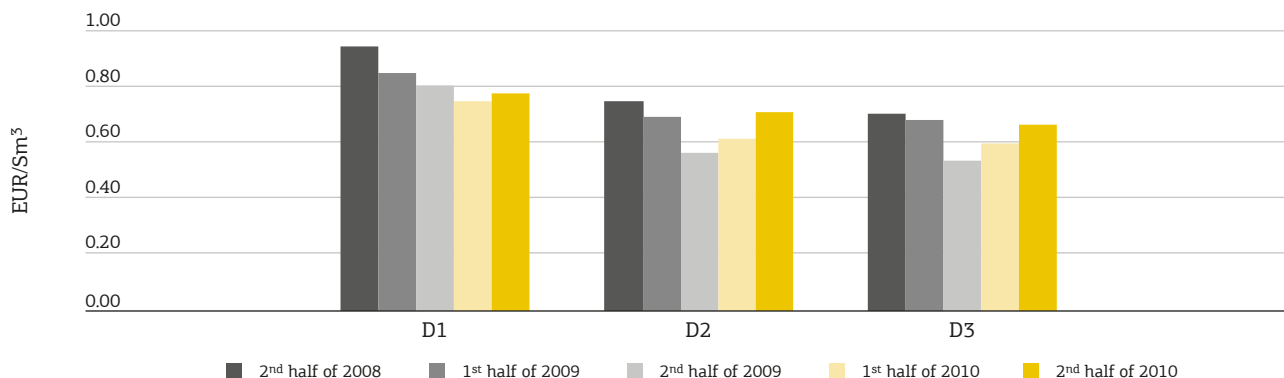
The new standard customer groups of typical household customers using natural gas were also formed in line with the new methodology used by Eurostat and the Statistical Office of the Republic of Slovenia. The prices relating to the above group were calculated and presented in line with new methodology.

**Table 34: Standard customers groups of household customers**

Group	Consumption	
	from	to
D1	–	529 Sm <sup>3</sup>
D2	529 Sm <sup>3</sup>	5,287 Sm <sup>3</sup>
D3	5,287 Sm <sup>3</sup>	–

Source: Statistical Office of the Republic of Slovenia

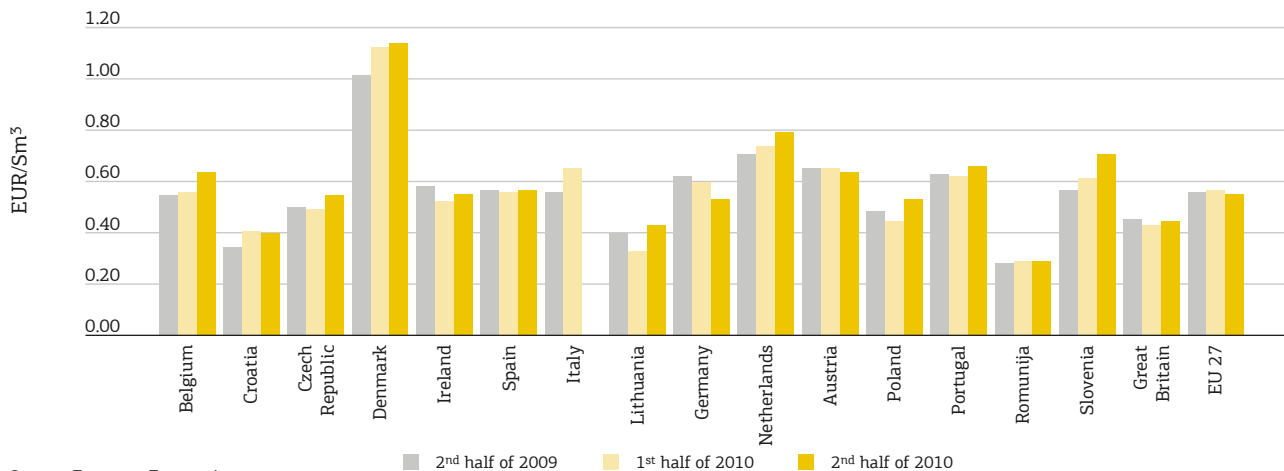
**Figure 70: Final gas prices for typical household customers including VAT and other taxes in Slovenia from 2008**



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

The figure shows the movements of the prices for typical household customers in all the groups. The highest prices were in 2008, they dropped in 2009 due to changes in the global market for oil and oil products. In the beginning of February 2010 suppliers started to charge supplement for increase efficiency, which amounts to 0.005 euro for each Sm<sup>3</sup> of gas consumed. Higher prices for natural gas in 2010 are the consequence of rising prices of oil and oil products in the global market.

**Figure 71: Final gas prices including VAT and other taxes for typical household customers D2 in Slovenia and in some other EU countries**



Source: Eurostat, Energy Agency

The final gas prices for typical household customers D2 with an annual consumption between 529 Sm<sup>3</sup> and 5287 Sm<sup>3</sup> were increasing. The average price of gas during this period was 0.55 EUR/Sm<sup>3</sup> of gas, similar to the previous year and was about the same as the previous year.

### **5.3.3 The measures taken to prevent any abuse of dominant position and to ensure competition**

In 2010 the Competition Protection Office issued one decision, concluding that declared concentration of public company Javno podjetje Energetika Ljubljana, d. o. o., and company Termoelektrarna Toplarna Ljubljana, d. o. o., consistent with competition rules.

#### **5.3.3.1 The findings and measures of the ministry responsible for competition**

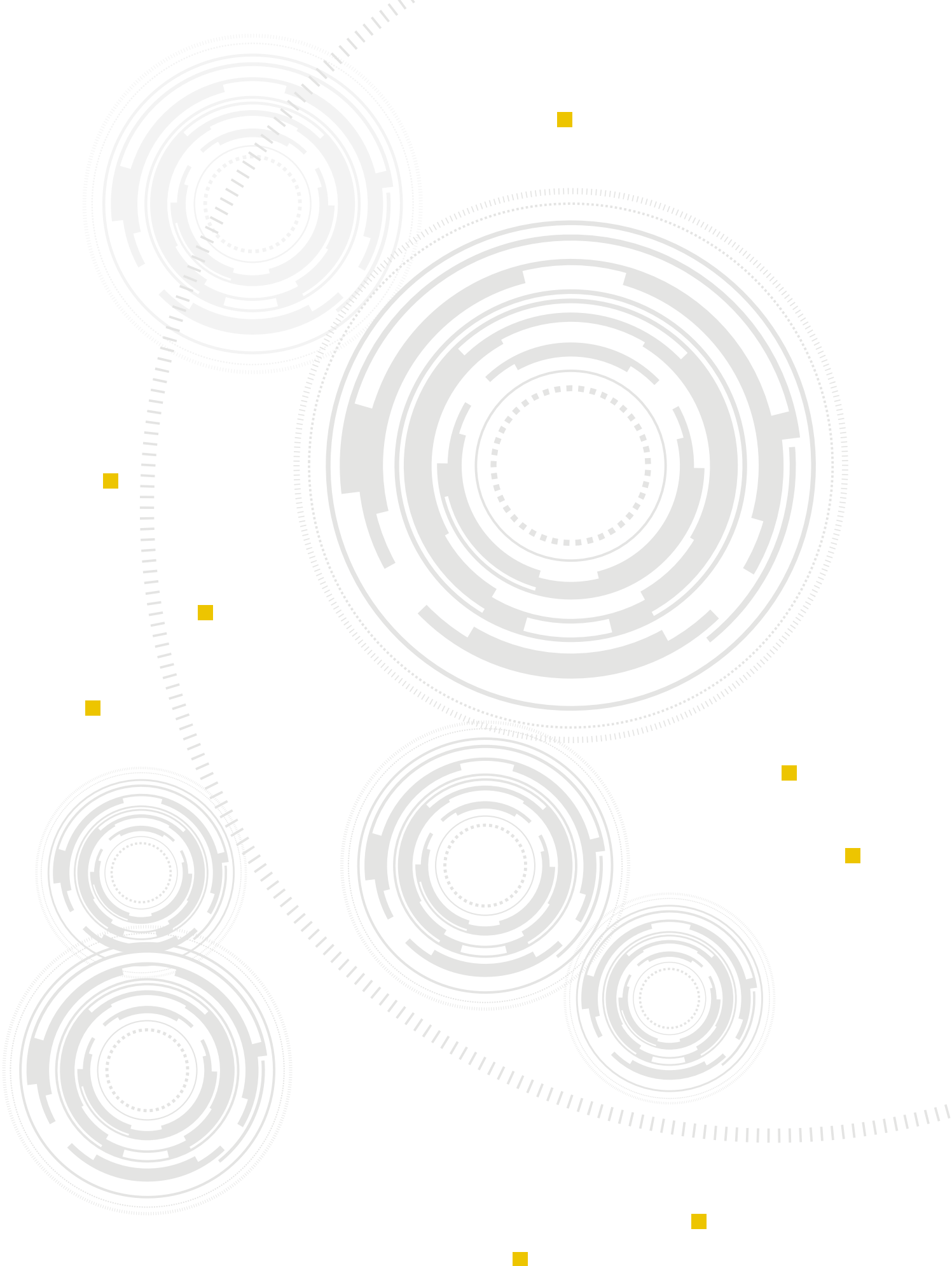
In 2010 Ministry of Economy did not carried out any measures to ensure competition in the wholesale and retail market for natural gas.

#### **5.3.3.2 The findings and measures of the ministry responsible for energy**

In 2010 Ministry of Economy did not carried out any measures to ensure competition in the wholesale and retail market for natural gas.

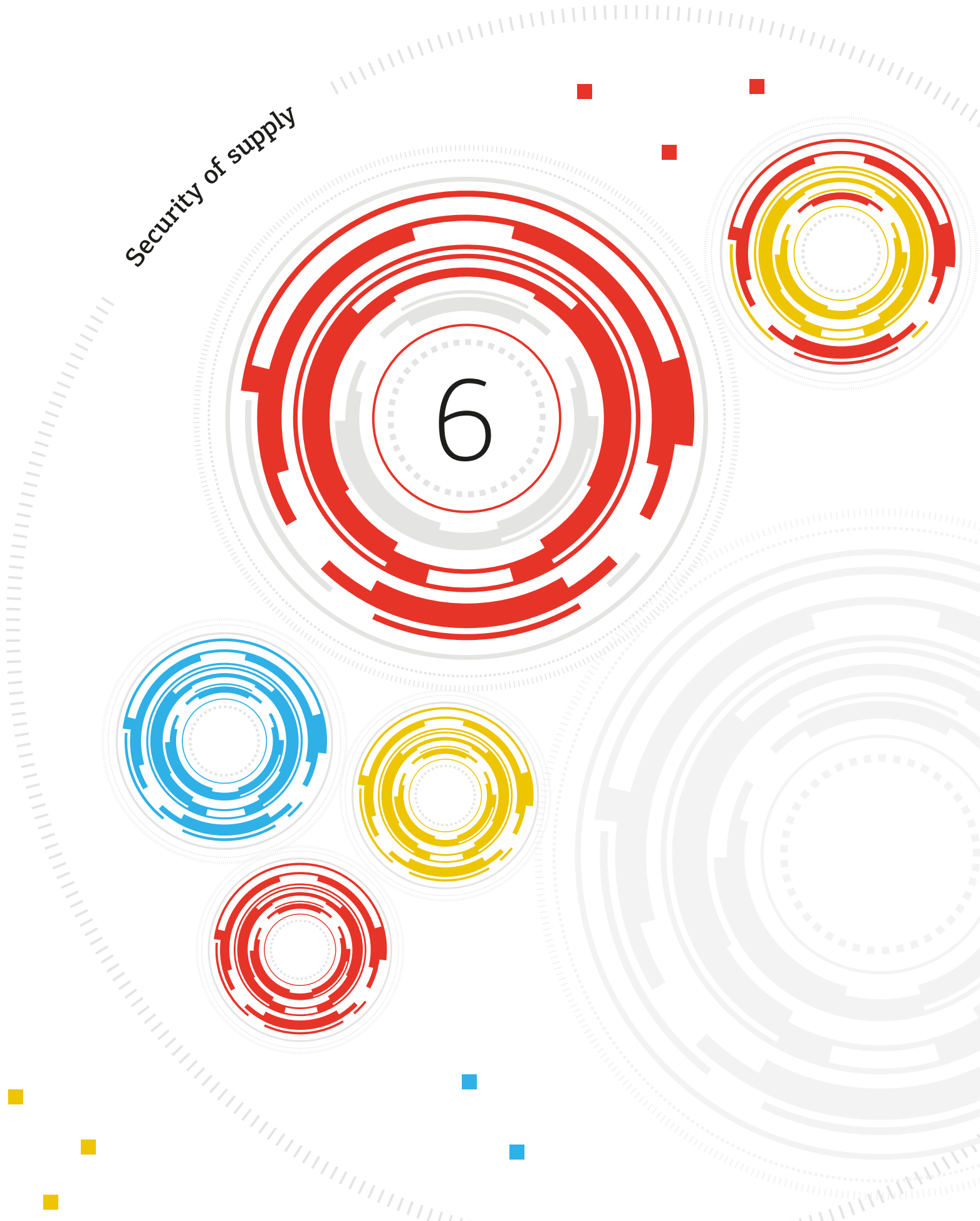
### **5.3.4 The deciding on disputes and appeals**

In 2010 the Energy Agency received 2 requests to decide in the area of natural gas. The requests related to the network charge and the infringements of the general conditions for the supply and consumption. The first request ended with settlement, the second one was dismissed.



Security of supply

6





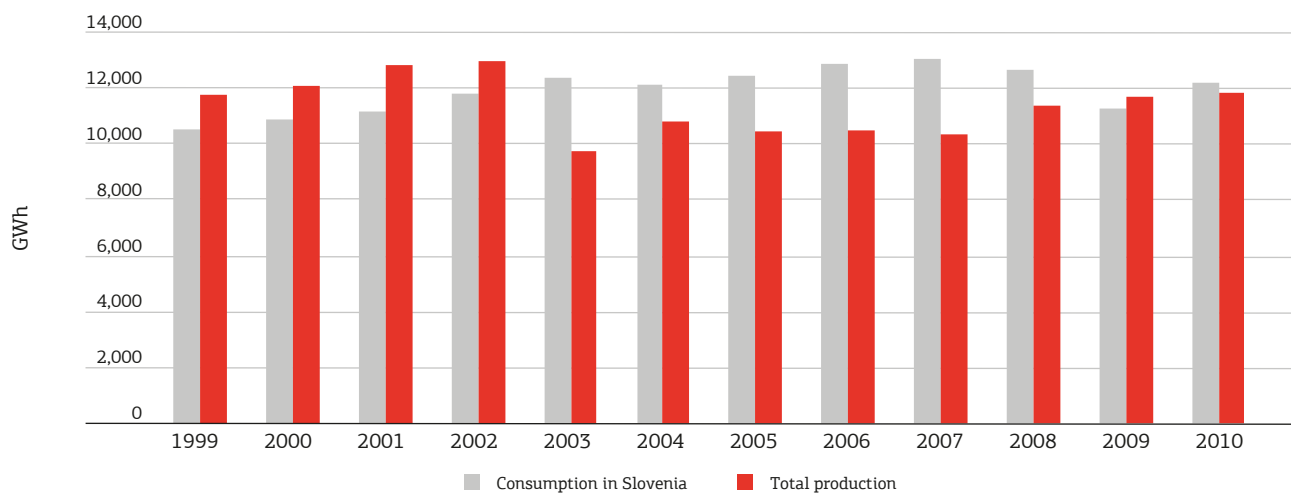
## 6.1 The reliability of the electricity supply

The reliability of the electricity supply depends on two parameters – the sufficiency of production sources and the security of the network. The sufficiency of production sources is the ability of all the available production sources to meet the demand for electricity. The ability of a network to allow the electricity to be supplied from the producers to the customers is called the network security. As errors occur in the operations of the production facilities and network elements, causing interruptions to the operation, it is also necessary to safeguard the supply in such cases. For this reason, a sufficient reserve of the production sources has to be provided for; this reserve can be found outside the domestic electricity system, while the domestic network has to fulfil certain security measures, the most commonly used being the n-1 criterion. This criterion determines that in the case of an outage of any transmission element (power line, transformer), the supply to any network user should not be interrupted. In Slovenia the n-1 criterion is used for the transmission network, and for higher levels of the distribution networks, while, for economic reasons, it is not used for the lower levels of the distribution networks.

### 6.1.1 The sufficiency of the production

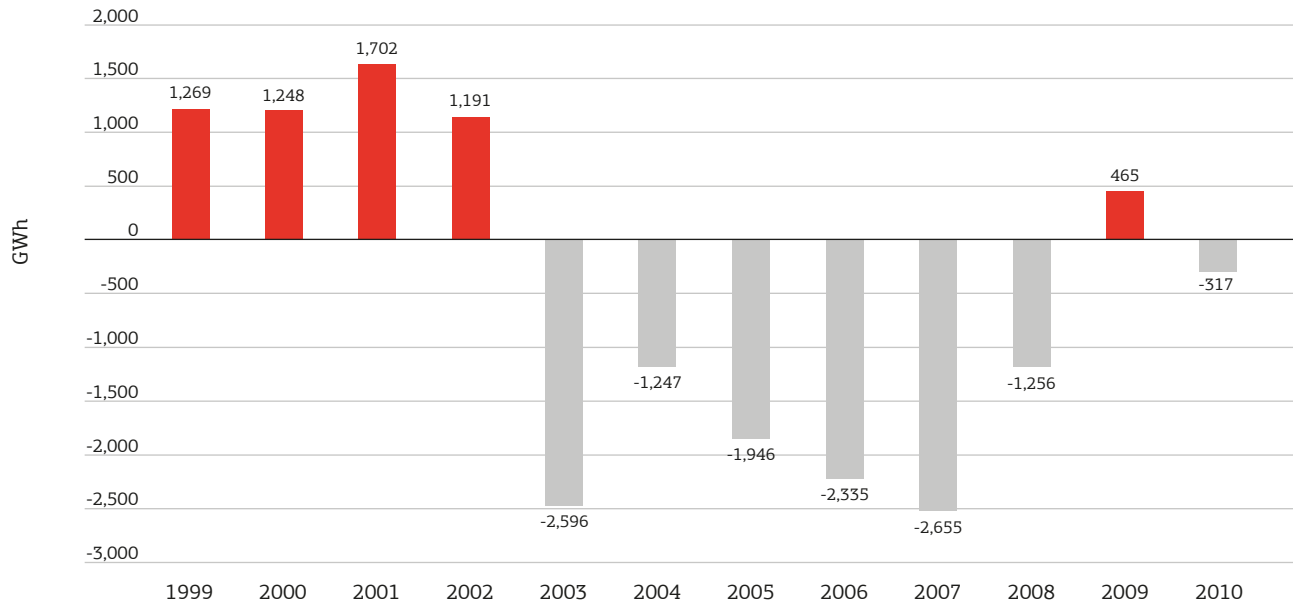
Figures 72 and 73 show how electricity demand was covered in the period 1999–2010. In the period 1998–2002 Slovenia had large surpluses of electricity, but from 2003 to 2008 it has had a deficit of electricity that has increased every year. The global economic crisis in 2009 led to a lower consumption of electricity, thus Slovenia had surpluses of electricity. In 2010 small deficits in production occurred, mainly due to cheaper electricity available in markets of neighbouring countries and because of insufficient production in Slovenia. In 2010 the oldest, 25 MW block of the thermal power plant in Šoštanj ceased to operate permanently, but this did not contribute to the reduction of production resources in Slovenia. Also the PSPP Avče started to operate, which can contribute to sufficiency of production sources, because it operates in time when there is a lack of energy in the system, and it acts as a consumer at time when there is enough energy in the system.

**Figure 72: Production and consumption of electricity on the Slovenian transmission network from 1999 to 2010 (period 1999-2002 includes the total production of the Krško NPP)**



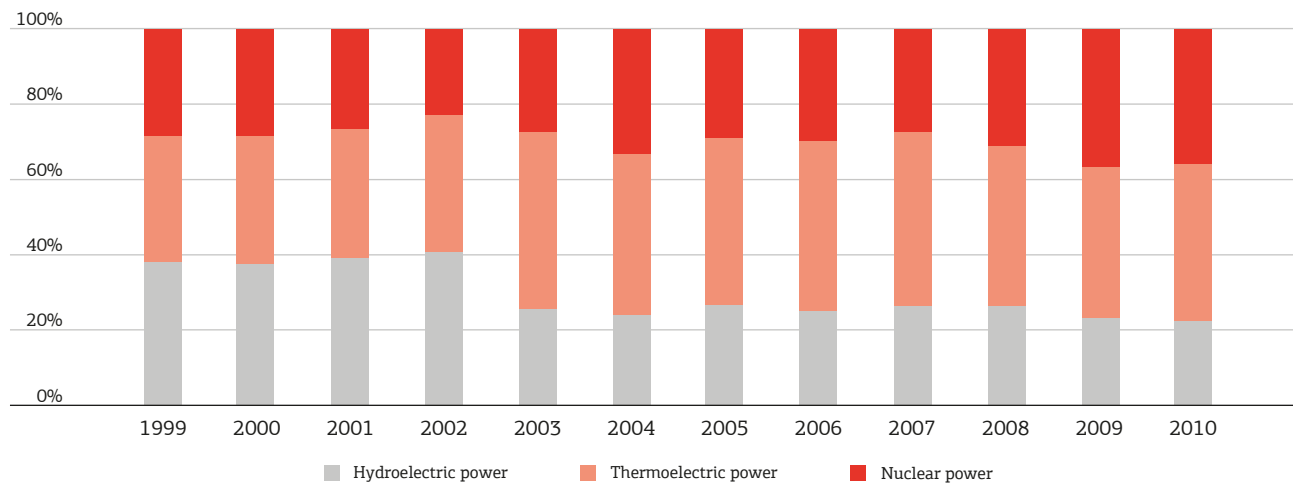
Source: Eles

**Figure 73: Surpluses and deficits of electricity on the Slovenian transmission network for 1999-2010 (period 1999-2002 includes the total production of the Krško NPP)**



Source: Eles

**Figure 74: Structure of electricity production on the Slovenian transmission network for 1998-2010 (period 1999-2002 includes the total production of the Krško NPP)**



Source: Eles

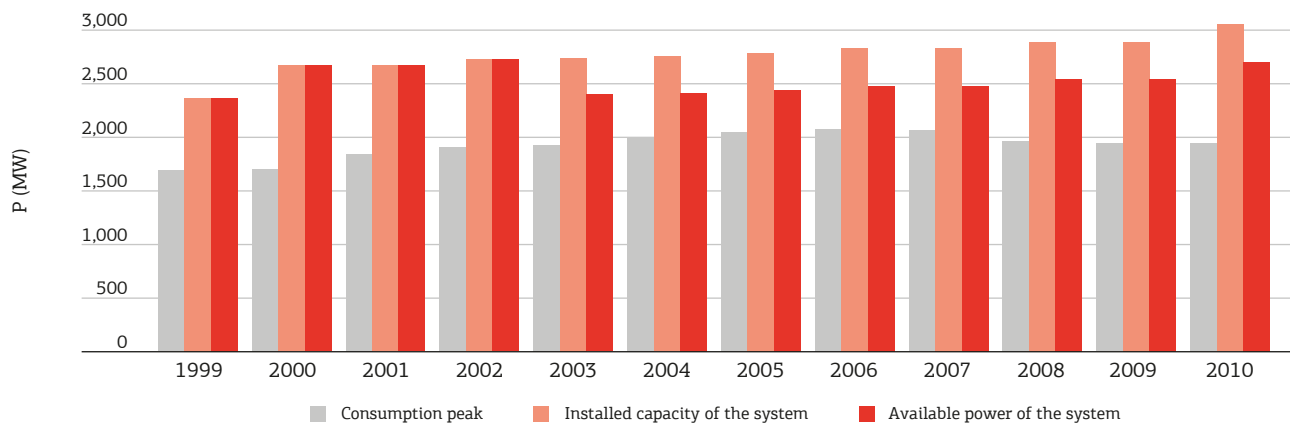
Figure 74 shows the structure of electricity production in Slovenia in 2010 by the production sources. The largest share has the production in thermolectric power plants using fossil fuels and hydroelectric power plants; slightly lower is the production from nuclear power plant (taking into account 50-percent share of Slovenia.)

Unlike the situation in relation to meet the electricity demand, the situation in providing the power available to Slovenian production system was better; it shows that Slovenian production system can fully meet the needs of providing necessary power. The PSPP Avče contributes additional 180 MW of capacity, which can be, in a case of shortage in a very short time, used for the production of electricity

Figure 75 shows the power available to the Slovenian market and the peak consumption on the transmission network for 1999–2010. The difference between the installed capacity of the production facilities and the power available to the Slovenian market is the same as 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.

The ratio between the available power of all the production facilities and the peak-power consumption was 1.57, and the ratio between the available power of the production facilities connected to the transmission network and the peak-power consumption was 1.39.

**Figure 75: Installed capacity of the production facilities, the power available to the Slovenian market and the peak consumption on the transmission network for 1999-2010**



Source: Eles

### 6.1.2 The planned investments in the production facilities

In 2010 the TSO for the electricity network produced a development plan for the transmission network in Slovenia from 2011 to 2020. This plan includes expected trends of electricity consumption from the transmission network and possible scenarios for covering the demand with the production facilities. The plan also lists expected changes by production unit connected to the transmission network.

**Table 35: Changes to the production units for 2011-2020**

	Installed capacity (MW)	Expected year of completion
<b>Hydroelectric power plants</b>		
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
<b>Wind power plants</b>		
Dolenja vas	80	2015
Senožeška Brda	100	2015
Volovja reber	30	2015
Selivec – Vremščica	134	2015
<b>Thermoelectric power plants</b>		
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 35 shows the 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.

### 6.1.3 The security of the network operation

The TSO managed to successfully balance the production and demand with regard to electricity. The total amount of unsupplied electricity was 255.6 MWh, which was almost five times as much as in 2009, when the total amount was 47.37 MWh. Strong wind on March 10 in the area of Primorska caused as much as 65% of all the unsupplied electricity. The second most important factor for unsupplied electricity was a technical error their own power supply, which occurred on January 19 and which resulted in 16.8% of the total amount of unsupplied electricity. Other causes for unsupplied electricity were storms (8.5%), fractures of pin insulator (6.6%) and fallen trees (1.9%). In addition to already mentioned reasons, unsupplied electricity was caused by undervoltage protection, breakdown between conductor and construction and some unknown reasons. The fact is that most of unsupplied electricity was caused weather factors. Although the Slovenian production resources in 2010 were not entirely sufficient to meet domestic demand, the supply was never interrupted as a result of shortage of production sources.

## 6.2 The reliability of the natural-gas supply

In 2010 the supply with natural gas to the customers on the transmission and distribution networks was not at risk in any way.

The suppliers to end customers, including the specific customers, supplied natural gas through the wholesale gas suppliers. Slovenia has neither its own gas sources nor its own storage facilities, with which it could increase the reliability of the gas supply. All the suppliers importing gas to Slovenia strive to increase the supply reliability by making long-term contracts and by leasing the storage facilities in Austria, Italy and in Croatia.

In order to ensure a reliable supply, Geoplin as the largest wholesale supplier of natural gas provided sufficient quantities of leased storage capacity. Other suppliers who buy natural gas on the wholesale market from Geoplin ensured security of supply by leasing adequate amount of natural gas in transmission capacities on a daily level, taking into account possible interruptions in supply or extremely low temperatures. Another mechanism used for ensuring security of supply are interruptible supply contracts with industrial customers and district heating systems that have an option to use other energy sources and by that release (decrease) the demand for natural gas. The suppliers with gas appliances use that option to ensure an adequate level of security of supply and they do not need to make special interruptible-supply contracts.

The suppliers in Slovenia in 2010 did not use or make solidarity mechanisms or arrangements in any form.

The Energy Agency found that the measures taken by the suppliers had no negative effect on the operation of the natural-gas market.

The gas transmission system operator will, as part of its tasks relating to the provision of the security and reliability of its operation and in line with the findings relating to the physical congestion, try to release the overloaded parts of the network by making new investments. The constructions will be carried out in line with the priorities determined in the development plans that were approved of by the government.

Regulation (EU) 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 in December 2010. This Regulation establishes new rules for the provision of a reliable supply of natural gas. The effects of these rules will be, in a lesser extent, seen in the coming year, and more in the following period.



7

*Provision of public services and the status of customers*

## 7.1 The provision of public services

In Slovenia the commodities and the services that are in the public interest are provided by public services organised within one of the legally recognised forms stipulated by the Public Services Act. With respect to the energy sector, the EA determined the following as the mandatory public services:

- the transmission-system operation for electricity and natural gas;
- the electricity distribution-system operation;
- the electricity-market operation.

The gas distribution-system operation, the gas storage-facility operation or the liquefied-gas terminal operation, and the gas-market operation are determined as the optional local public services. This means that these services are organised only if a local community decides to provide them to its citizens.

In 2010 the gas distribution was provided by 74 local communities. The optional services of the gas storage- facility operation or the liquefied-gas terminal operation, and the gas-market operation were not carried out.

## 7.2 The protection of customers

The household customers of electricity and natural gas 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 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 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.

The system operators determine, in the general conditions for the supply and consumption of natural gas, also the 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.

The suppliers have to, in addition to legislation related to the general consumers protection, consider addition protection of customers, which is determined in the energy legislation. The general conditions for the supply and consumption demand some elements that have to be included in the contracts and are in line with the requirements of European directives.

The suppliers of electricity have to, at least once a year, inform customers about their consumption and the composition of the production resources of consumed electricity.

### 7.2.1 The protection of vulnerable customers

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 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 be-

cause of the insolvency or illiquidity of the supplier. The system operator has to inform customers about the conditions required for the provision of the above supply.

This supply has a limited duration, aimed at preventing a situation in which a customer could remain without an energy supply because of the above reasons on the supplier's part. In 2010, three customers were supplied under these terms.

Eligibility for this supply is assessed on evidences submitted by a household customer to the system operator – a proof of receiving welfare, and medical certificate, which proves that the life and health of the customer or the person living with the customers depend on medical equipment running on electricity, and interruption of supply would endanger the life and health of the customer or the persons who reside with him/her. In 2010 the system operator received 5 such applications, but none of them met the required conditions.

In the area of natural gas, a household customer that is without the necessary financial means, so that the life and health of the customer, and the persons living with the customer, are threatened, may exercise the right to maintain the energy supply, provided the customer submits to the system operator a proof of receiving a welfare allowance. 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.

## 7.2.2 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 an electricity or 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 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.

In 2010, the distribution system operators of natural gas received 4568 complaints, of which 90% were unjustified. Most of the complaints were related to invoicing (4298), 162 complaints were related to metering, 52 to unplanned supply disruptions, 25 to network charge and 15 to connection procedure. A small number of complaints were related to the planned interruption of supply (6), switching (5) and general conditions for the supply (5).

## 7.2.3 The right to compensation

The General Conditions for the Supply and Consumption of Electricity from the Distribution Network give a network user the right to compensation for damages, if the system operator interrupted, or stopped, the electricity supply without due cause, if a supply interruption lasted for an



unreasonably long period, if the quality of the electricity does not meet the current standards or the contractually agreed value, or if another user has been causing disturbances.

## 7.2.4 The publication of the prices

In 2010 the electricity suppliers were publishing the electricity prices for households on their websites. These publications included prices for different products or the so-called electricity-supply packets for households.

The electricity distribution system operator was publishing the conditions and electricity prices for the last-resort supply.

All the suppliers of natural gas but one were publishing gas prices on their websites. 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 Energy Act and methodologies for determining and charging network charge. Web application – Comparison of suppliers of electricity and Information on prices of natural gas are also available on the website of the Energy Agency.

## 7.3 The safeguarding of transparency

In the Slovenian markets for electricity and natural gas, the transparency of prices, of the relevant data, and of the conditions for the supply and consumption is provided for.

The transparency of the conditions for the supply and consumption of electricity and natural gas is provided for by the general acts of the system operators that were published in the Official Gazette of the Republic of Slovenia, and thus made available to all the market participants. In the area of electricity, the relevant document, with respect to the transmission and distribution networks, is the General Conditions for the Supply and Consumption of Electricity adopted by a system operator after obtaining a positive opinion from the Energy Agency and approval from the government. In the area of natural gas, the relevant document, with respect to the transmission network, is the General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network adopted by the transmission system operator after adopting a positive opinion from the Energy Agency and approval from the government. With respect to the gas distribution network, the relevant document is the General Conditions for the Supply and Consumption of Natural Gas from the Distribution Network adopted by the distribution system operator after obtaining approval from the local authority and from the Energy Agency. The Energy Agency is also responsible for settling disputes arising from the alleged breaches of the general supply conditions relating to electricity and natural gas.

The General Conditions for the Supply and Consumption of Natural Gas from the Distribution Network determine, among other issues, certain mandatory elements of the access contracts relating to all the customers and of the supply contracts relating to household customers. Prior to concluding a supply contract, a supplier is obliged to inform a household customer about the contractual conditions, including the right to cancel the contract. It is also obliged to inform a customer about any later change to these conditions. A supplier has to published information on current prices, or costs, in a transparent manner that is accessible to a customer.

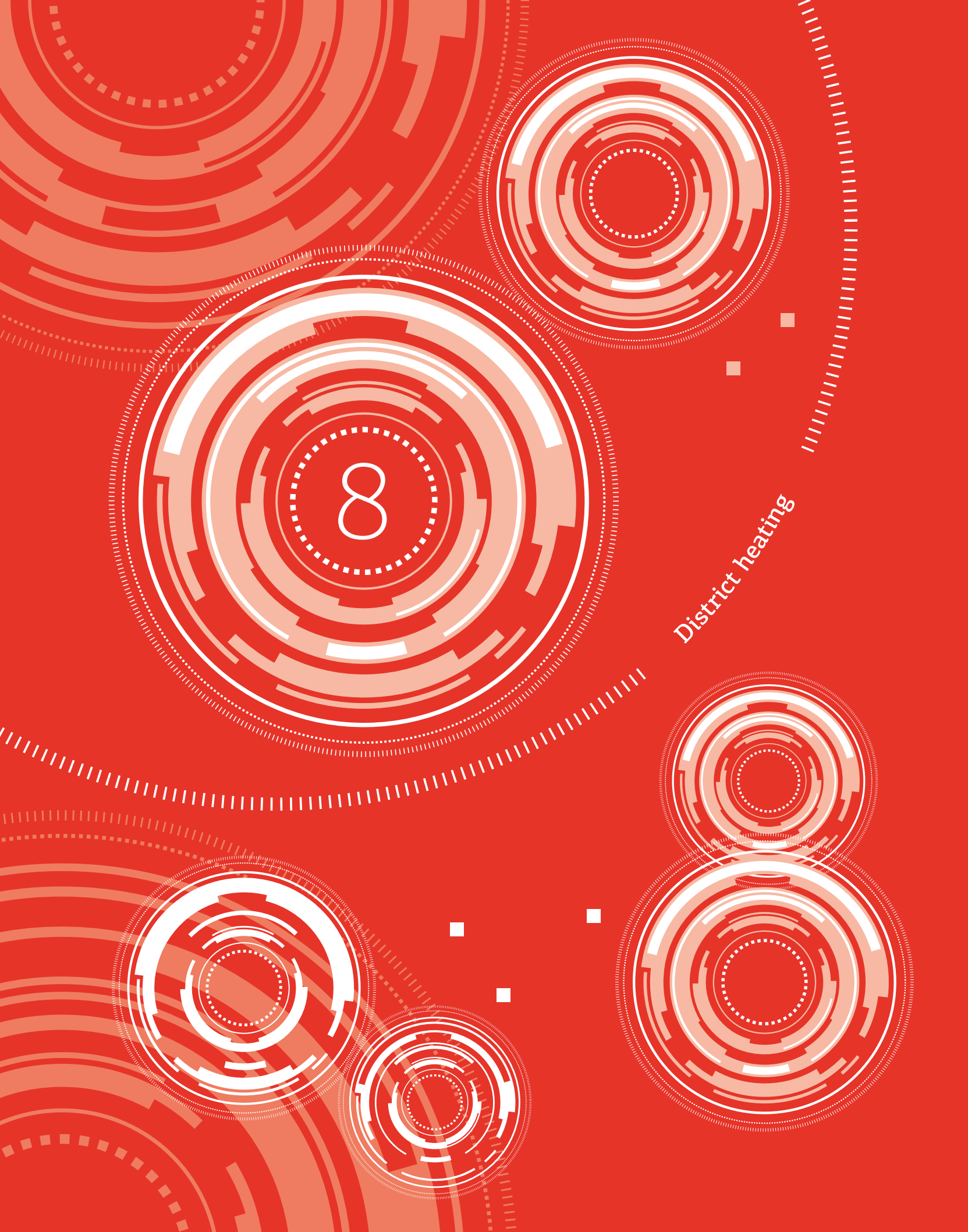
A supplier's responsibility relating to communicating with a customer is also a direct and timely informing of any increase in the electricity price that has to be made 30 days before the implementation of the change, at the latest. In the case of making a supply contract for a specified period, it is the supplier's responsibility to inform a customer, 30 days prior to the contract's expiry, at the latest, about the consequences of the contract's expiry.

A supplier of natural gas has to inform its customers, in writing, about any change in the prices with the first bill for the gas supply issued after the implementation of the price change.

The remaining terms of contracts are set freely, and are estimated in accordance with the provisions of the law of obligations. The settling of disputes arising from the provisions of these contracts is the responsibility of the court.

8

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, 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, or to distribute heat.

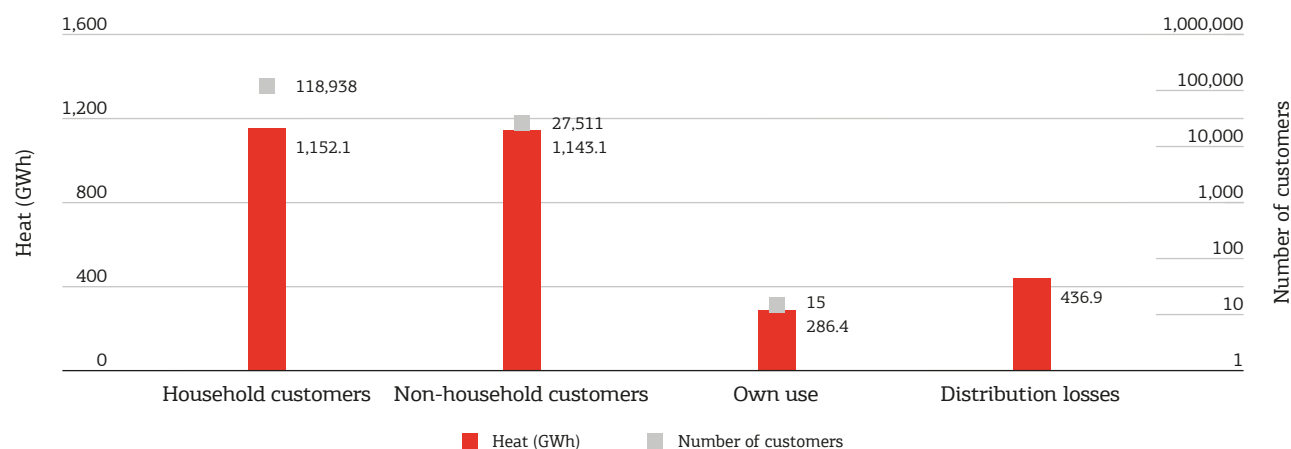
## 8.1 The supply of district heating

In Slovenia, 62 of the 86 licence holders, active in 48 municipalities, were involved in heat supply in 2010. Of these companies, 44 were involved in both heat distribution for district heating and heat production for district heating of above 1 MW; 7 companies were only involved in the distribution, while the remaining 11 companies only produced heat. Only one larger system with a cooling aggregate power of the 965 kW operates in Slovenia, in the Velenje City Municipality; investing in new systems of district cooling is due to the 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, produced 3018.5 GWh of heat and 865.1 GWh of electricity, or 726.5 GWh of electricity at the busbars of the cogeneration processes. The largest share of heat – 1152.1 GWh, or 38.2% – was used for the supply to 118,938 household customers, while 1143.1 GWh or 37.9% of heat was used for the supply to industrial and other non-household customers. Heat losses incurred during the distribution amounted to 16% percent of all the heat delivered to the distribution networks. The difference between the produced and distributed heat was used for the producers' or distributors' industrial processes.

Figure 76 shows the heat consumption by type of customers and the customer numbers.

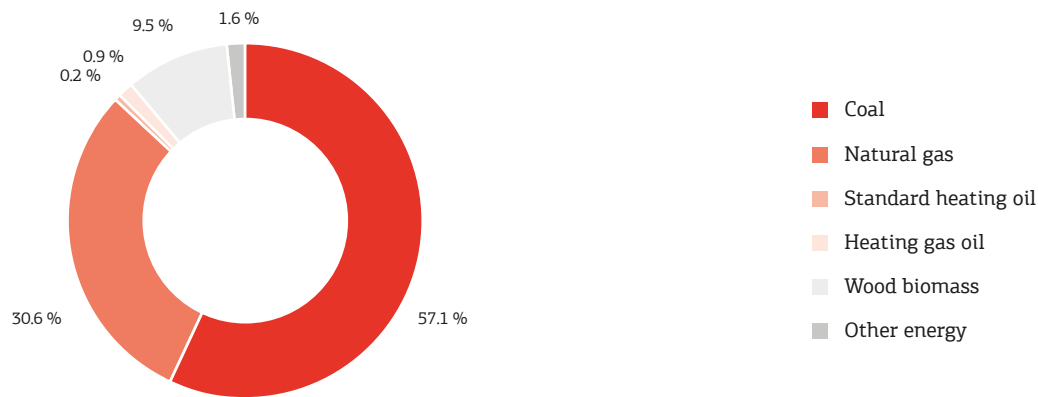
**Figure 76: Heat consumption by type of customers and the customer number**



Source: Energy Agency

In the structure of used primary energy sources for the heat production, coal had a 57.1-percent share, natural gas had a 30.6-percent share and heating oil had a 0.9-percent share. Wood biomass and other primary renewable sources of energy had a 11.1-percent share in the structure of the energy sources.

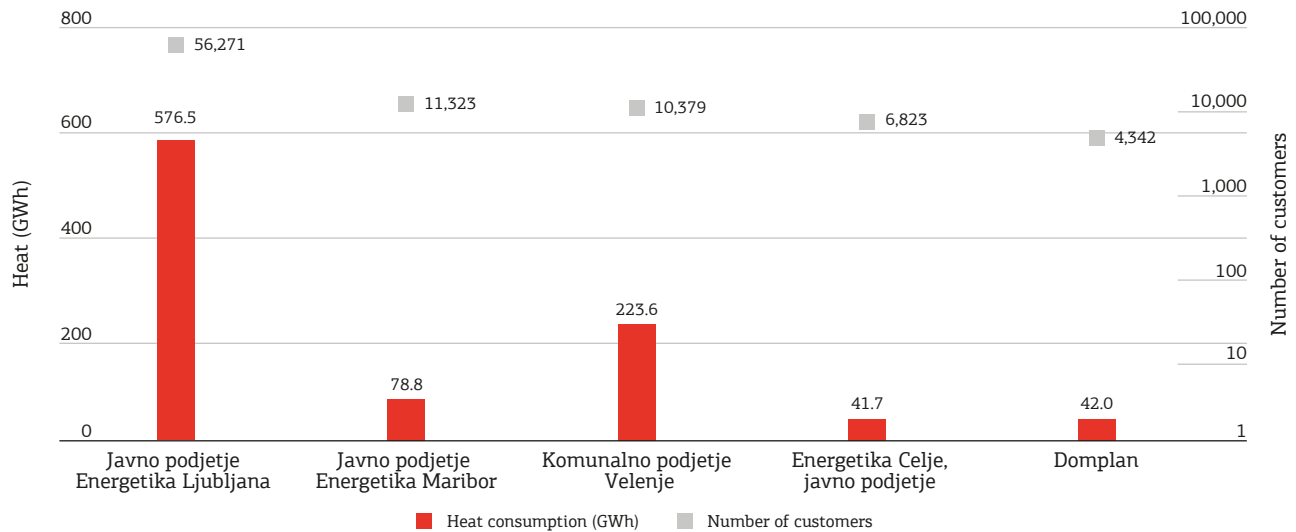
**Figure 77: Structure of the primary energy sources for the production of heat for district heating**



Source: Energy Agency

The five largest heat-distribution companies supplied 74.9% of all the households, distributing 83.5% of the heat produced for district heating. Figure 78 shows the 5 largest distributors of heat with respect to the amount of heat distributed to households, and the customer numbers.

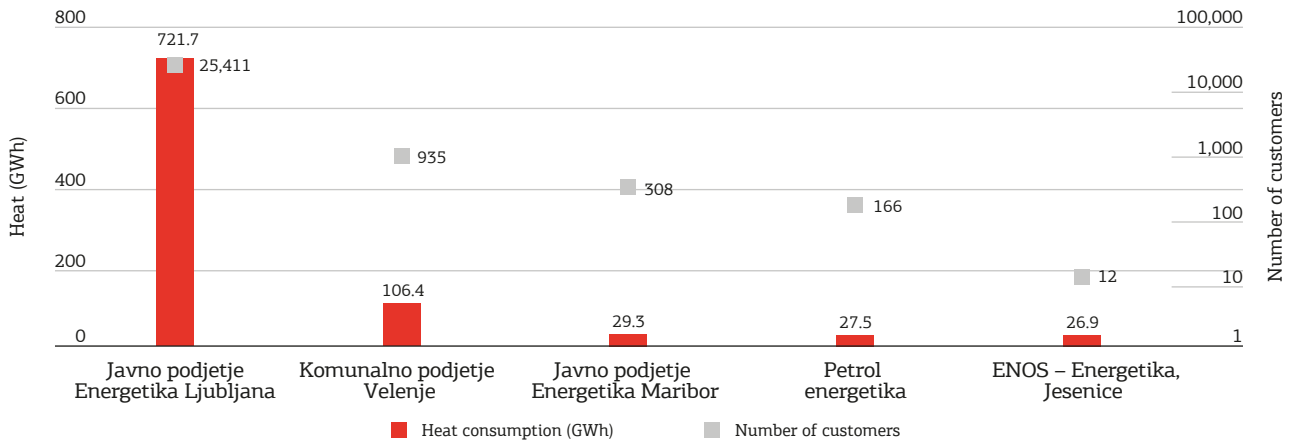
**Figure 78: Largest distributors of heat to households in 2010**



Source: Energy Agency

The five largest distribution companies supplied heat to 97.5% of all non-household customers, distributing to them as much as 79.8% of the required heat (Figure 79).

**Figure 79: Largest distributors of heat to non-households in 2010**

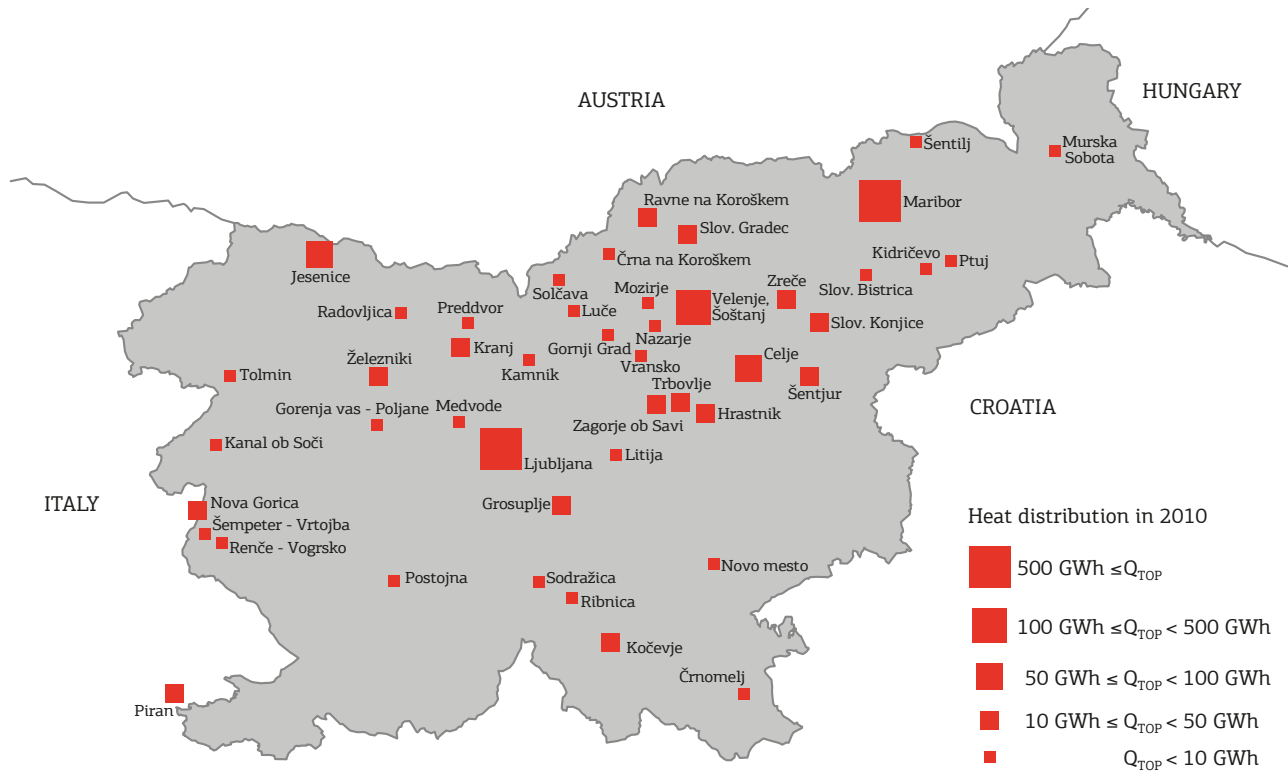


Source: Energy Agency

## 8.2 The distribution networks

In 2010 the service of heat distribution was, in the Republic of Slovenia, carried out by 55 licence holders. The heat distribution networks were set up in 48 of the 210 Slovenian municipalities, their total length being 712.5 kilometres. The system of with a cooling power is carried out only in the Velenje City Municipality, the distribution network is 600 metres long. Figure 80 shows their locations and the sizes of the distributed amounts.

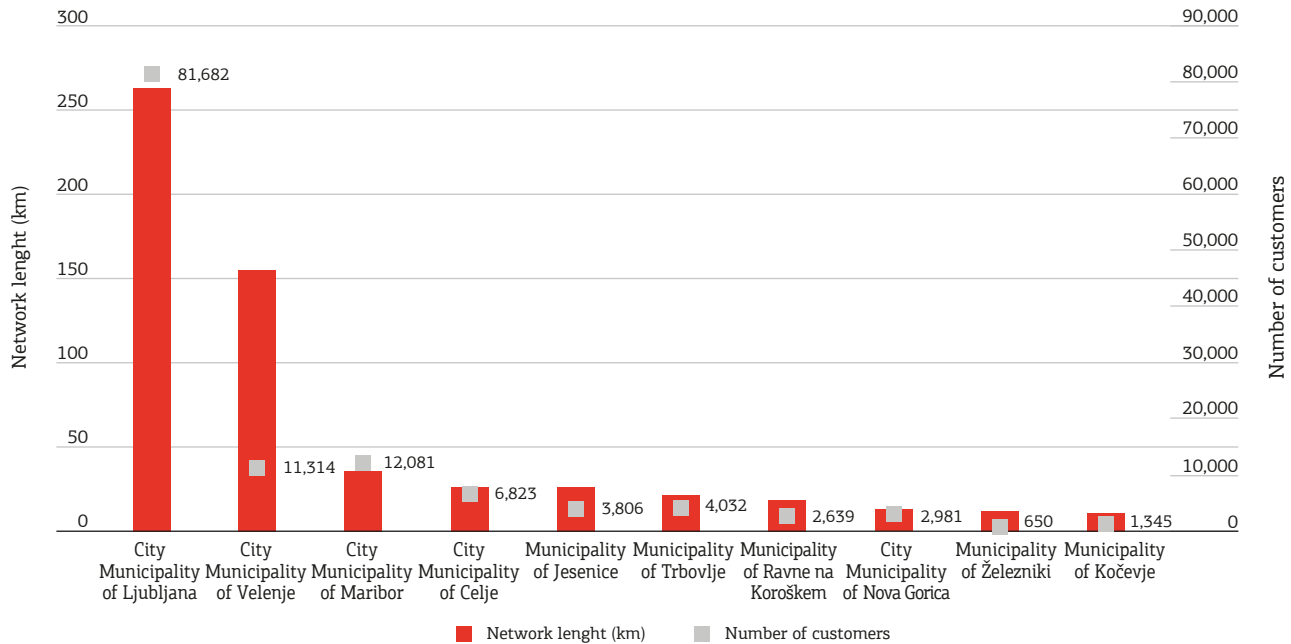
**Figure 80: Heat distribution networks in Slovenia in 2010**



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. These networks cover 97.9% of distribution networks, and steam networks cover 2.1% of the total distribution networks. The municipalities with the longest networks are Ljubljana (263.5 kilometres of hot-water and warm-water network) and Velenje, together with Šoštanj, (155.9 kilometres of warm-water network). Figure 81 shows the lengths of the 10 largest heat distribution networks in individual municipalities, and the numbers of connected users.

**Figure 81: Length of heat distribution networks by municipality, and the numbers of connected users in 2010**



Source: Energy Agency

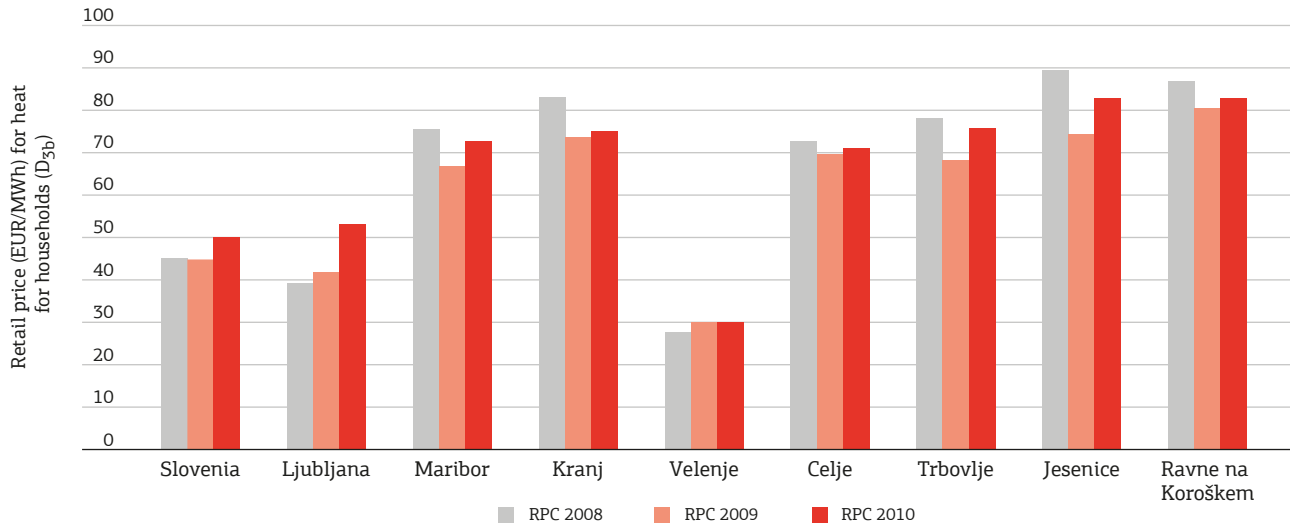
### 8.3 The prices for heat

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. The data relates to the standard customer group for households D<sub>3B</sub> in a selected number of Slovenian municipalities, whose amount of heat supplied to the households in 2010 accounted 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 82 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 2009 increased on average by 11.7%; the highest price increase occurred in the area of Ljubljana, 25.9%.

**Figure 82: Trends in the average retail prices of district heating for household in selected Slovenian towns and for Slovenia in 2008-2010**



Source: Statistical office of the Republic of Slovenia

The image features a white background with several overlapping dashed circles. One prominent circle is red and located in the upper right quadrant. Other circles in various shades of grey are scattered across the page, some partially cut off by the edges. The word "Appendix" is written in a black, sans-serif font, positioned in the lower left area and slightly rotated counter-clockwise.

Appendix



## List of figures

<b>Figure 1:</b>	Balance of electricity production and consumption in 2010 in GWh .....	21
<b>Figure 2:</b>	Structure of monthly electricity production .....	22
<b>Figure 3:</b>	Structure of the production sources for electricity in Slovenia in 2010 .....	22
<b>Figure 4:</b>	Fluctuations in electricity consumption in 2010 .....	23
<b>Figure 5:</b>	Shares of electricity consumption by consumption type .....	24
<b>Figure 6:</b>	Profit from leasing and service activities for SODO .....	26
<b>Figure 7:</b>	Amounts of the investments in, and reconstructions of the electricity infrastructure .....	28
<b>Figure 8:</b>	Investments sources of the owners of the electricity distribution infrastructure ..	29
<b>Figure 9:</b>	Investments sources of the transmission system operator .....	29
<b>Figure 10:</b>	SAIDI for period 2008 - 2010 unforecasted interruption caused internally .....	34
<b>Figure 11:</b>	Indicator SAIDI for unforecasted and forecasted interruptions for the period 2008–2010 at the national level .....	35
<b>Figure 12:</b>	Indicator SAIFI for unforecasted and forecasted interruptions for the period 2008–2010 at the national level .....	35
<b>Figure 13:</b>	Average duration of unforecasted interruptions of electricity supply per customers in some European countries (without force-majeure interruptions) ..	36
<b>Figure 14:</b>	Number of all complaints relating to voltage quality for 2008–2010 by company ...	36
<b>Figure 15:</b>	Average values of the elements included in the use-of-network price by voltage level .....	38
<b>Figure 16:</b>	Shares of the elements included in the final electricity price for a typical industrial customer (Ib - 50 kW, 50 MWh) .....	38
<b>Figure 17:</b>	Shares of the elements included in the final electricity price for a typical industrial customer (Ie -500 kW per year 2 GWh) .....	39
<b>Figure 18:</b>	Shares of the elements included in the final electricity price for a typical industrial customer (Ig - 4 MW, per year 24 GWh) .....	39
<b>Figure 19:</b>	Shares of the elements included in the final electricity price, and shares of the elements in the use-of-network price for a typical household customer (Dc- 3500 kWh/year) ...	39
<b>Figure 20:</b>	Production of units included in the support system at the end of 2010 .....	45
<b>Figure 21:</b>	Net capacity of production facilities included in the support scheme at the end of 2010 .....	46
<b>Figure 22:</b>	Number of the issued declarations for production facilities in 2010 .....	46
<b>Figure 23:</b>	Net capacity in MW for production facilities with issued declaration in 2010 .....	46
<b>Figure 24:</b>	Number of the issued granted support for the productions facilities .....	47
<b>Figure 25:</b>	Shares according to the net capacity, for the production facilities that received decisions on granting support .....	47
<b>Figure 26:</b>	Number of distributed emission coupons for 2005–2010 .....	48
<b>Figure 27:</b>	Movement of the price for emission coupons from the second trading period in 2010 .....	48
<b>Figure 28:</b>	Cumulative shares of the one (CR1), two (CR2) and three (CR3) largest producers in the market with respect to the installed capacity and 50 percent of the production from the Krško NPP .....	49
<b>Figure 29:</b>	Cumulative shares of the one (CR1), two (CR2) and three (CR3) largest producers in the market with respect to electricity production and 50 percent of the production from the Krško NPP .....	49
<b>Figure 30:</b>	HHIs of the production companies .....	51

<b>Figure 31:</b> Market shares of the electricity suppliers at the end of 2010 .....	55
<b>Figure 32:</b> Market shares of the suppliers to the customers on the distribution network at the end of 2010 .....	56
<b>Figure 33:</b> Market share of the suppliers to the customer with an annual consumption of up to 50 MWh (including household customers).....	56
<b>Figure 34:</b> Market shares of the suppliers to the customers with an annual consumption between 50 MWh and 2 GWh .....	57
<b>Figure 35:</b> Market share of the suppliers to the customers with an annual consumption of over 2 GWh.....	57
<b>Figure 36:</b> Numbers of supplier switches for 2002-2010 .....	58
<b>Figure 37:</b> Dynamics of the supplier switches in 2010 with respect to the type of the customer ...	58
<b>Figure 38:</b> Dynamics of the supplier switches with respect to the amounts of energy.....	58
<b>Figure 39:</b> Changes to the market shares of the suppliers to all the customers on the distribution network in 2010 with respect to 2009.....	59
<b>Figure 40:</b> Changes to the market shares of the suppliers to all the customers with respect to 2009.....	60
<b>Figure 41:</b> Trends of the HHIs in retail markets for 2008-2010.....	61
<b>Figure 42:</b> Trends of the electricity prices for typical industrial customers in Slovenia (old methodology by Eurostat) .....	61
<b>Figure 43:</b> Comparison of electricity prices for a typical industrial customer with an annual consumption of 20 to 500 MWh in the EU countries and Slovenia for the second half of 2010.....	62
<b>Figure 44:</b> Comparison of electricity prices for a typical industrial customer with an annual consumption of 20 to 70 GWh in the EU countries and in Slovenia for the second half of 2010.....	62
<b>Figure 45:</b> Trend of the final electricity price for a typical household customer (D <sub>c</sub> – 3500 kWh per year) in EUR/MWh.....	63
<b>Figure 46:</b> Comparison of the final electricity prices for a household customer with an annual consumption of 2500 to 5000 kWh in the EU countries and in Slovenia for the second half of 2010 .....	64
<b>Figure 47:</b> The comparison of the best offers for the supplied electricity for the group D <sub>c</sub> (December 2010).....	65
<b>Figure 48:</b> Retail price index for standard customer groups D <sub>c</sub> , D <sub>d</sub> and D <sub>e</sub> for 2010 .....	65
<b>Figure 49:</b> Average daily values of the main imbalances prices P <sub>+</sub> and P <sub>-</sub> in 2010 .....	66
<b>Figure 50:</b> Average daily values of the main imbalances prices P <sub>+</sub> and P <sub>-</sub> in 2010 .....	67
<b>Figure 51:</b> Average daily values of indexes C <sub>SLOP</sub> and C <sub>SLOn</sub> v letu 2010 .....	67
<b>Figure 52:</b> Basic details about the transmitted and consumed amounts of natural gas .....	71
<b>Figure 53:</b> Trends of the prices for oil, oil products and the basic price of natural gas.....	72
<b>Figure 54:</b> Numbers of new customers on the distribution networks for 2006-2010.....	77
<b>Figure 55:</b> Length of new distribution networks in 2006-2010 .....	78
<b>Figure 56:</b> Trends of the prices for the gas transmission by customer group for 2006-2010 .....	79
<b>Figure 57:</b> Average prices for the use of the network and average prices of natural gas in 2010 for household customers .....	81
<b>Figure 58:</b> Average prices for the use of the network and average prices of natural gas in 2010 for household customers .....	81
<b>Figure 59:</b> Amounts of natural gas required for balancing imbalance amounts .....	82
<b>Figure 60:</b> Movements of the prices for natural gas for the company's own use and for balancing imbalance amounts from 2008-2009.....	82

<b>Figure 61:</b> Maximum daily and average monthly capacity utilisation of the metering-regulation station Ceršak .....	84
<b>Figure 62:</b> Maximum daily and average monthly capacity utilisation of the metering-regulation station Šempeter .....	84
<b>Figure 63:</b> Maximum daily and average monthly capacity utilisation of the metering-regulation station Rogatec .....	85
<b>Figure 64:</b> Sources of natural gas .....	87
<b>Figure 65:</b> Movement of the distributed quantities and the number of customers on the distribution .....	89
<b>Figure 66:</b> Ration between the number of customers connected to the distribution network and their consumption .....	90
<b>Figure 67:</b> Movement of gas consumption on the distribution network by months in years from 2008 to 2010 .....	90
<b>Figure 68:</b> Final gas prices for industrial customers including VAT and other taxes .....	91
<b>Figure 69:</b> Final gas prices including VAT and other taxes for typical industrial customers I3 in Slovenia and some other EU countries .....	92
<b>Figure 70:</b> Final gas prices for typical household customers including VAT and other taxes in Slovenia from 2008 .....	93
<b>Figure 71:</b> Final gas prices including VAT and other taxes for typical household customers D2 in Slovenia and in some other EU countries .....	93
<b>Figure 72:</b> Production and consumption of electricity on the Slovenian transmission network from 1999 to 2010 (period 1999-2002 includes the total production of the Krško NPP) .....	97
<b>Figure 73:</b> Surpluses and deficits of electricity on the Slovenian transmission network for 1999-2010 (period 1999-2002 includes the total production of the Krško NPP) .....	98
<b>Figure 74:</b> Structure of electricity production on the Slovenian transmission network for 1998-2010 (period 1999-2002 includes the total production of the Krško NPP) .....	98
<b>Figure 75:</b> Installed capacity of the production facilities, the power available to the Slovenian market and the peak consumption on the transmission network for 1999-2010 .....	99
<b>Figure 76:</b> Heat consumption by type of customers and the customer number .....	107
<b>Figure 77:</b> Structure of the primary energy sources for the production of heat for district heating .....	108
<b>Figure 78:</b> Largest distributors of heat to households in 2010 .....	108
<b>Figure 79:</b> Largest distributors of heat to non-households in 2010 .....	109
<b>Figure 80:</b> Heat distribution networks in Slovenia in 2010 .....	109
<b>Figure 81:</b> Length of heat distribution networks by municipality, and the numbers of connected users in 2010 .....	110
<b>Figure 82:</b> Trends in the average retail prices of district heating for household in selected Slovenian towns and for Slovenia in 2008-2010 .....	111

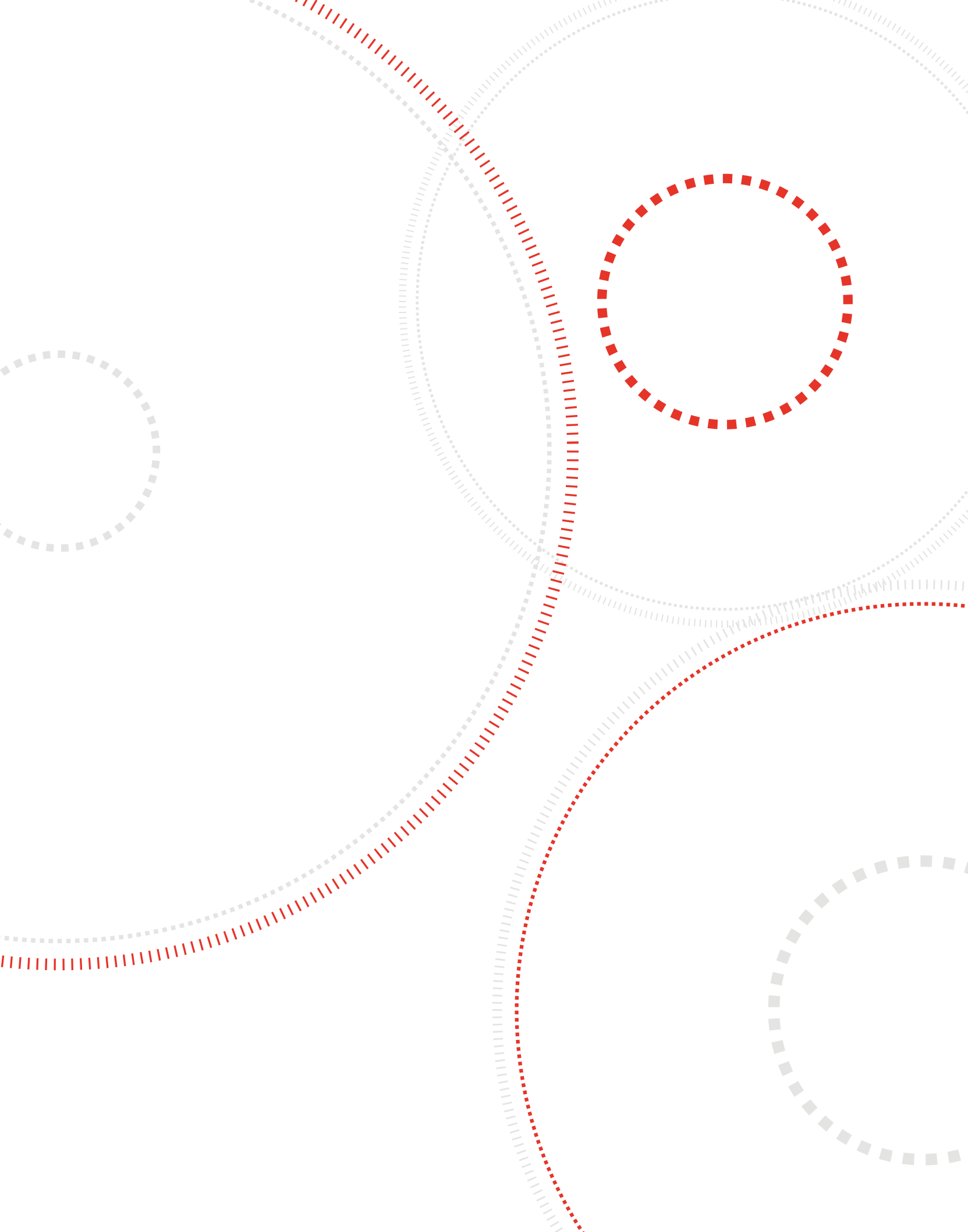
## List of tables

<b>Table 1:</b>	Electricity production and import in 2009 and 2010 – in GWh .....	22
<b>Table 2:</b>	Electricity consumption and export for 2009 and 2010 – v GWh .....	23
<b>Table 3:</b>	The share of consumption and the number of customers by the type of consumption ..	23
<b>Table 4:</b>	Net profit by activity .....	26
<b>Table 5:</b>	Amounts of realised investments in 2009 and 2010 .....	27
<b>Table 6:</b>	New investments in, and reconstructions of the electricity infrastructure .....	28
<b>Table 7:</b>	SAIDI by year- 2008 in 2010 unforecasted interruption caused internally .....	33
<b>Table 8:</b>	SAIDI and SAIFI at the national level for period 2008-2010 (unforecasted) .....	34
<b>Table 9:</b>	Indicators SAIDI in SAIFI at national level from 2008-2010 (forecasted interruptions and all interruptions) .....	34
<b>Table 10:</b>	Number and shares of complaints relating the supply quality for 2008-2010 .....	37
<b>Table 11:</b>	Review of the allocated CBTCs and the revenues from the auctions by borders ...	40
<b>Table 12:</b>	Installed capacities of the production facilities active in the Slovenian market ...	42
<b>Table 13:</b>	Shares of different types of electricity production in Slovenia .....	43
<b>Table 14:</b>	Connections of the new facilities and disconnections of the old productions facilities ..	43
<b>Table 15:</b>	Net profits of the companies for electricity production .....	44
<b>Table 16:</b>	Number of employees in the companies for electricity production .....	44
<b>Table 17:</b>	Ownership structure of the companies for electricity production .....	45
<b>Table 18:</b>	HHI with respect to the installed capacity of the producers in the Slovenian market ..	50
<b>Table 19:</b>	HHI with respect to the producers on the transmission network in Slovenia .....	50
<b>Table 20:</b>	Required product quality of tertiary reserve in 2010 .....	52
<b>Table 21:</b>	Review of the amounts of leased reserve power .....	52
<b>Table 22:</b>	Market shares of the suppliers to the customers on the distribution network ...	59
<b>Table 23:</b>	Market shares of the suppliers to all the customers .....	60
<b>Table 24:</b>	Review of 1st priority activities related to the investments in the gas transmission network .....	74
<b>Table 25:</b>	Provision of the regulated service of operating a distribution network .....	76
<b>Table 26:</b>	Local communities in which the services of operating a distribution network was not yet carried out in 2010, while the concession were awarded .....	76
<b>Table 27:</b>	Distribution lines and metering stations .....	77
<b>Table 28:</b>	Ownership structure of the companies for gas distribution .....	78
<b>Table 29:</b>	Trading of spare capacity in the secondary market in 2010 .....	83
<b>Table 30:</b>	Imported gas, for domestic consumption between 2008 and 2010 in Sm <sup>3</sup> .....	87
<b>Table 31:</b>	Market shares and the HHIs relating to the wholesale gas market .....	88
<b>Table 32:</b>	Market shares and the HHIs relating to the entire retail market .....	88
<b>Table 33:</b>	Standard customers groups of industrial customers .....	91
<b>Table 34:</b>	Standard customers groups of household customers .....	92
<b>Table 35:</b>	Changes to the production units for 2011-2020 .....	100

## List of abbreviations and acronyms

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







Javna agencija RS za energijo

ENERGY AGENCY OF THE REPUBLIC OF SLOVENIA	
Strossmayerjeva 30, SI-2000 Maribor	P.O. Box 1579
Phone: +386 2 234 03 00	Fax: +386 2 234 03 20
<a href="http://www.agen-rs.si">www.agen-rs.si</a>	<a href="mailto:info@agen-rs.si">info@agen-rs.si</a>

**Report on the Energy Sector in Slovenia for 2010**

July 2011

Design and typesetting: Studio 8