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1 INTRODUCTION

For Slovenia 2005 represented an important developmental stage in the realisation of the single European market in the areas of electricity and natural gas. The Slovenian energy market was affected by the developmental trends of the EU market; the market developed significantly with respect to the regulation of the regulated services and with respect to the amendments to the regularization of the energy market.



The electricity market operated without any interruptions to the supply. 2005 saw an increase in the number of customers who changed their suppliers. The amount of energy sold in the wholesale market is increasing from year to year. In the wholesale market the amount of electricity sold was almost four times the amount of electricity supplied and consumed in this market. The participants in the electricity market mainly acted in line with the current legislation, and for this reason the number of disputes was very small.

In 2005 a very important task of the Energy Agency of the Republic of Slovenia was the preparation and implementation of the regulatory framework relating to the setting of the network charges for electricity networks for the period 2006–2008. For this regulatory period the Energy Agency strictly limited the increase of the network charges to an average of 3.5 percent per year, and requested the operators of electricity networks to continually improve their effectiveness by increasing the quality of their services and the supply with electricity.

The year 2005 represented a turning point in the market for natural gas, because the acts relating to the regulation of the distribution level of this market have been adopted. Slovenia is entirely dependent on the imported supply of natural gas. The conditions in the Slovenian natural-gas market are significantly affected by long-term supply contracts, and for this reason there were no changes of supplier on the transmission network. The network charges for the gas transmission network were set already in 2004. In addition, in 2005 the Energy Agency issued the required methodologies for setting the network charges for the distribution networks. On the basis of these methodologies, the operators will prepare the proposals for the network charges and submit them to the Energy Agency in order to obtain its approval. With the setting of the network charges the grounds for the switch of supplier at the distribution level will be created.

The operators of the natural-gas networks prepared the general conditions for supply and consumption, and the system operation instructions, to which the Energy Agency gave its approval or opinions. These activities represented an important development regarding, mainly, a transparent setting of the technical requirements for making a connection and for operation, as well as regarding the general conditions relating to the suppliers and customers.

Similarly, the participants in the market for natural gas operated in line with the legislation and without any disputes. The regulation of this market includes the requirements of the directive regarding a reliable supply, and the regulation regarding access to the gas transmission networks.

In the area of district heating, the Energy Agency issued the methodologies for setting general conditions for the supply and consumption of heat from the distribution network, and for the preparation of the tariff systems for the supply and consumption of heat from the distribution network. In this way the Energy Agency provided grounds for the comparability of tariff systems and of the conditions for the supply of heat from the distribution networks.

The Energy Agency cooperated with the national bodies in the Republic of Slovenia, as well as with the bodies or institutions monitoring the EU energy sector. Its cooperation with the national bodies shows how strongly the Energy Agency is involved in the changes occurring in the developing energy market, whose respective legislation is also being amended. At the EU level, the Energy Agency's cooperation with the European Commission and the regulators of other Member States, significantly contributed to the development of the single market. And last but not least, with its reporting on the situation in the energy market, the Energy Agency also contributed to the improved transparency of the market.

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2.1 BASIC DETAILS REGARDING THE MARKETS FOR ELECTRICITY AND **NATURAL GAS IN SLOVENIA**

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Slovenia

Population (average for 2005)	2,003,358	
Area	20,273 km ²	
Number of households (on 31 Dec 2005)	774,094	
Number of electricity customers (on 31 Dec 2005)	870,593	
Number of natural-gas customers (on 31 Dec 2005)	111,921	
Gross domestic product (GDP)	6,557,698 million tolars	27,365 million euros
Increase in GDP	3.9%	
Inflation	2.5%	
Average exchange rate tolars/euros	239.64 tolars/euros	
GDP per person	3.273 million tolars	13,677 euros

Peak capacity	2,797 MW	
- hydroelectric power	2,777 mm	886 MW
- thermoelectric power		1,241 MW
- nuclear power		670 MW
Production of electricity	13,667 GWh	
- hydroelectric power		3,036 GWh
- thermoelectric power		4,601 GWh
- nuclear power		5,613 GWh
- independent and qualified producers		417 GWh
Length of transmission network	2,534 km	
- 400 kV		507 km
- 220 kV		328 km
- 110 kV		1,699 km
Length of distribution network	59,317 km	
- 110 kV		793 km
- 35, 20 and 10 kV		15,851 km
- 0.4 kV		42,675 km
Consumption of electricity	12,389 GWh	
- direct customers		2,775 GWh
- eligible customers		6,539 GWh
- tariff customers		3,075 GWh
Annual consumption per person	6,176 kWh	
Average household consumption per month	314 kWh	

Source: Companies' data



2.2 THE REGULATOR'S MOST IMPORTANT ACTIVITIES

The energy-related activities defined by the law as public services (henceforth referred to as PSs) are connected with the infrastructure. There is no competition in the area of infrastructure, which leads to a natural monopoly. The energy market can only operate if the infrastructure is available to all parties under the same, non-discriminatory, conditions. The services that cannot be provided by the market can be carried out by means of regulation. The control of natural monopolies carried out by the Energy Agency means a search for an effective balance between the stimulation of greater effectiveness and the prevention of undeserved profits. By controlling the prices and the returns on investments, as well as by monitoring the realisation of the strategic decision-making of the providers of PSs, the Energy Agency wishes to set up a stable, predictable and transparent economic environment. To prevent any abuse of the market power of the providers of the mandatory PSs, it is necessary to put in place an economic regulatory control, which is one of the most important activities of the regulator.

The most important tasks of the Slovenian regulator, i.e., the Energy Agency of the Republic of Slovenia, are as follows:

- preparing the methodologies for setting and charging for the network charges for the electricity networks and the natural-gas networks;
- setting the network charges for the use of the electricity networks, and giving approvals to the network charges for the use of natural-gas networks;
- deciding on disputes and complaints;
- issuing the licences to carry out energy-related activities;
- giving approval to or opinions on the acts of the system operators, such as the system operation instructions, the rules on allocating the capacities of the interconnection lines, i.e., the cross-border transmission capacities, and the tariff system relating to electricity for the tariff customers;
- controlling the market operation and the unbundling of services;
- reporting on its own work and on the situation in the energy sector, also including reporting on the activities of the competition.

The Energy Agency issues the RECS certificates relating to the electricity generated from renewable sources. In 2005 the Energy Agency was also involved in the preparation of the foundations necessary for issuing the guarantees of origin of electricity, and for disclosing the structure of production sources. The Energy Agency annually reports to the Government of the Republic of Slovenia. The governing bodies of the Energy Agency are the director and the five-member council that gives guidelines to the Energy Agency and adopts its general acts. In 2005 the organisational structure of the Energy Agency did not change, its work was organised as a network operation, and was carried out in four sectors: technical, economic, legal, and common services.

2.3 THE DEVELOPMENT OF THE MARKETS FOR ELECTRICITY AND NATURAL GAS

The year 2005 represented an important developmental phase of the realisation of the single European energy market. The European Commission intensively monitored the development at the European level, and the market development in the Member States. Apart from the operation of the energy market, another condition for a competitive economy is the reliability of energy supply regulated, with respect to natural gas, by the Directive 2004/67/EC Concerning Measures to Safeguard the Security of the Natural Gas Supply. This year also saw the adoption of the Regulation 1775/2005/EC on the Conditions for Access to the Natural Gas Transmission Networks, and the Directive 2005/98/EC Concerning the Security of Electricity Supply.

The development trends of the single EU market are reflected in the Slovenian energy market. In the wholesale market the amount of electricity sold was almost four times the amount of electricity supplied and consumed in this market, while in the retail market the number of customers who changed supplier increased. The market for natural gas is still being formed, and it is significantly influenced by long-term supply contracts and by the size of the market. There were no changes of natural-gas supplier. General acts, i.e., the methodologies, providing grounds for the regulating and the opening up of the natural-gas market at the distribution level were adopted.

2.3.1 The development in the market for electricity

The Member States achieved different levels of intensity in the development of the electricity market; this was also established by the European Commission in its sector inquiry regarding the operation of the national markets. One reason for this was the growth of electricity prices in almost all the markets of the Member States. Other reasons for the current situation are the increase in the prices for some primary energy sources (gas and oil), a low level of cross-border trading, the concentration of industries, and the small response of customers to the option of selecting a supplier.

Slovenia was one of the first Member States to integrate into its own legislation the Directive 2003/54/ EC Concerning the Common Rules for the Internal Market in Electricity. The positioning of the Slovenian transmission network between the neighbouring networks of Austria, Croatia and Italy represents a big challenge for the trading with electricity, mainly because of significant price differences in the region. Physical flows of electricity towards Italy increased significantly after some Balkan countries again synchronised their operations with the European energy network. The transparency and conditions for cross-border trading in the European area allowed an increase in the amounts traded in the regions with lower prices. The amount of electricity, imported and exported through the Slovenian transmission network amounted to 75 percent of the annual consumption of Slovenian customers.



Average prices in the market for electricity (July 2004–June 2005) (Source: European Commission)



In comparison with the previous year, no crucial changes occurred in the Slovenian electricity market. The ownership structure of the companies did not change; in the production market the largest producer has the dominant position. There was, however, no abuse of this dominant position or market power, because of which the measures of the responsible authorities would have been taken. The largest growth, measured in terms of the amount of traded energy, was recorded in the wholesale market, which was mainly a result of the accessibility of the neighbouring markets and the differences between the electricity prices. The trading with electricity was mainly carried out in the direction from the countries of South-East Europe to the EU countries north and west of Slovenia.

There were no new suppliers in the Slovenian retail market, and some of the existing suppliers changed their membership in the balance groups. The number of customers that changed supplier was, in 2005, larger than the year before; however, the amount of energy consumed by these customers was smaller. Most of the new supply contracts were made by the customers that became eligible customers in 2004. The predictability of network charges is also very important for the market operation; in 2005 the Energy Agency prepared the second regulatory framework for the period 2006–2008.

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In the EU the prices for emission coupons were on the increase towards the end of 2005; however, this trend did not influence the Slovenian market, as the majority of customers had concluded their contracts already at the beginning of the year. The European Commission monitored the development in the new, not yet completely stable, market for emission rights, and studied its operation in the reports. At the beginning of 2005 emission coupons were distributed to Slovenian industry and the thermal-energy sector.

2.3.2 The development in the market for natural gas

Natural gas is becoming an increasingly important source of energy for the European countries. In 2005 significant progress was made in Slovenia with respect to natural gas. At the beginning of 2005 Geoplin plinovodi, d.o.o., the transmission system operator, began to operate as a separate legal entity. Prior to this event, Geoplin, d.o.o., carried out the service of system operation, and was also the largest supplier of and trader with natural gas in Slovenia. At the same time the network charges for the gas transmission network, which were adopted already in 2004, came into force. As a result, the market operation and the switch of supplier at the transmission level were made possible for the whole of 2005, while the adopted mode of charging for the network charge allowed the transparency of prices. The autumn of 2005 also saw the adoption of two important executive acts regulating the market for natural gas, i.e., the General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network (the Official Gazette of the Republic of Slovenia, No. 89/05), and the System Operation Instructions for the Transmission of Natural Gas (the Official Gazette of the Republic of Slovenia, No. 89/05).

In September 2005, at the distribution level, the Energy Agency prepared and put forward, after a public consultation, the harmonization and approval obtained from the Government of the Republic of Slovenia, the methodologies for setting the network charges, for charging for the network charges, for the preparation of the general conditions, and for the preparation of the tariff systems for the supply to tariff customers that provided the foundations for the switch of supplier and the transparency of prices.

The year 2005 saw the continuation of the harmonization relating to the implementation of the Directive 2004/67/EC Concerning Measures to Safeguard the Security of the Natural Gas Supply. This directive determines the measures for the provision of an appropriate level of reliable supply with natural gas. The directive sets up a common framework, within which the Member States can define general, transparent and non-discriminatory guidelines for the provision of a reliable supply with natural gas. According to the directive, the guidelines have to be in line with the requirements of the competitive internal market for natural gas.

In the autumn of 2005 the Regulation 1775/2005/EC of the European Parliament and of the Council on the Conditions for Access to the Natural Gas Transmission Networks also came into force. This regulation aims at forming non-discriminatory rules on the conditions for access to the gas transmission networks, taking into account the characteristics of national and regional markets. The fundamental objective of this regulation is to ensure a correct and transparent operation of the internal market for natural gas. The regulation will come into effect on 1 July 2006.

2.4 THE MAIN AREAS AND ISSUES THAT INVOLVED THE REGULATOR

In 2005 the Energy Agency prepared and implemented the second regulatory framework for setting and charging for the network charges for the use of electricity networks in the regulatory period 2006–2008, as well as the methodologies relating to the distribution of natural gas. The Energy Agency was also involved in the preparation of the amendments of the legislation, and it reported on the energy sector and the market development in Slovenia.

With respect to electricity, the Energy Agency prepared and implemented the following two acts:

- General Act Determining the Methodology for Charging for the Network Charge and the Methodology for Setting the Network Charge for Electricity Networks, as well as a Proposal for Mandatory Starting Points for Access Contracts Relating to the Electricity Transmission Network, and a Proposal for Correction Factors for 2006, which determined the principles of setting and charging for the network charges, as well as economic regulation of the service of system operators for the 2006–2008;
- General Act Regarding the Mode of Determining the Shares of Individual Production Sources, and the Mode of their Disclosure, which obliges electricity suppliers to publish specified information regarding the types of production sources.

In 2005 the Energy Agency fulfilled a legislative requirement relating to the new division of responsibilities between the state and the local authorities with respect to the distribution of natural gas. The Energy Agency prepared and implemented the methodologies for setting and charging for the network charges for natural-gas distribution, for the preparation of the general conditions for the supply and consumption, and for the preparation of the tariff systems for the tariff customers. On the basis of these methodologies the system operators of the gas distribution networks began to prepare the proposals for the network charges relating to their networks. It is expected that, after the harmonization procedure, the Energy Agency will give its approval to the network charges relating to distribution in 2006. In this way the foundations for the change of the supplier will be put in place also at the distribution level.

The Energy Agency gave approval to and opinions on the individual general acts issued by the system operators. These include general conditions for the supply and consumption, and the system operation instructions relating to both electricity and natural gas.

The Energy Agency cooperated with the regulators of the other EU countries in the Council of European Energy Regulators (CEER), and with the European Commission in the European Regulators Group for Electricity and Gas (ERGEG). The results of the activities of the CEER and the ERGEG, their working groups, focus groups and forums relate to the market operation and the positions of the market participants, and they reflect the views, as well as the recommendations of the regulators regarding the future development of the market. The Energy Agency contributed to the improved market transparency by reporting on the energy sector that was sent to the CEER, the ERGEG and the European Commission. The Energy Agency also reported, in detail, on the situation and the development of individual segments of the Slovenian electricity market.

With respect to electricity, the most important achievements, for Slovenia, were the preparation and publication of the draft guidelines for congestion management that is in 2006 being harmonized in the commitment procedure, and the preparation of the draft guidelines for the ITC mechanism. As a consensus was not yet reached, the harmonization procedure is being continued. Congestion management and the related issue of allocating cross-border transmission capacities were also discussed at the so-called mini fora dealing with individual regions. Slovenia is located at the juncture of three regions with different energy prices. With respect to allocating cross-border transmission capacities, an exemption will apply to Slovenia until 1 July 2007, which means that during this period the allocation is not yet carried out in line with market-based methods. However, the preparation for the allocation following market-based methods was already started, as Elektro-Slovenija, d.o.o. (Eles), the transmission system operator, also allocates, at Slovenia's southern border, smaller capacities for short periods at auctions.

The preliminary report of the sector inquiry regarding the competition in the energy market in the EU, which the European Commission carried out in 2005, identified the obstacles to the operation of a single energy market. These include poor transparency in the market, which is mainly due to a lack of data on available capacities, limitations of transmission paths, vertical integration, a dominant position of certain companies, the influence of long-term contracts, and other unfavourable factors. As a result, the electricity prices are not created by free competition. However, the prices are also affected by the continual increase in the energy consumption in the EU, and by various other non-energy-related factors. In the Slovenian market the influence of the vertical integration of energy companies is small; the transmission system operators are only linked with the other market participants by way of joint ownership, while the suppliers are linked with the producers only in the electricity market. There are no long-term contracts in the electricity market, while their influence on the natural-gas market is limited, as most of these contracts will expire in 2007.

The Energy Agency continued with activities promoting the use of renewable sources of energy by issuing the RECS green certificates. It was also preparing the foundations for the issuing of guarantees of the origin of electricity from renewable sources. In 2005 the Energy Agency issued the Act Regarding the Mode of Determining the Shares of Individual Production Sources of Electricity, and the Mode of their Disclosure, which comes into force in 2006.

In order to carry out energy-related activities, the providers of energy-related activities have to obtain an appropriate licence issued by the Energy Agency, which decides on the issuing or revoking of a licence in the administrative procedure in line with 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-Related Activity (the Official Gazette of the Republic of Slovenia, Nos. 21/01, 31/01 and 66/05). In 2005 the Energy Agency issued, in the administrative procedure, 52 positive decisions, on the basis of which the applicants obtained licences to carry out an energy-related activities, as well as 5 decisions to reject applications for obtaining a licence to carry out an energy-related activity.

On 30 June 2005 the Government of the Republic of Slovenia adopted the Ordinance Amending the Ordinance Relating to the Requirements and the Procedure for Issuing and Revoking a Licence to Carry Out an Energy-Related Activity (the Official Gazette of the Republic of Slovenia, No. 66/059). In line with the innovations from this ordinance, the Energy Agency adjusted the procedure for deciding on licences, appropriately renumbered the existing licences, and prepared a new Register of Issued and Revoked Licences.

The Energy Agency decided on disputes between the network users and the system operators, or market operators. It received 22 requests for decisions on electricity-related disputes, mostly with respect to alleged breaches of the general supply conditions and network access. It made final decisions on 16 requests, and one was referred to a responsible body. In the area of natural gas there were no requests for decisions on disputes.

The Energy Agency cooperated with the authorities in the Republic of Slovenia that have responsibilities relating to the energy sector: with the Ministry of the Economy; with the Directorate for Energy, mainly in the process of preparing the amendments to the legislation and ordinances regulating the conditions for the market operation; with the Office of the Republic of Slovenia for the Protection of Competition, in the cases of identifying possible abuse of the dominant position in the market; and with the Statistical Office of the Republic of Slovenia, mainly for the purpose of monitoring and analysing the conditions in the market.

The Energy Agency also realised the first step towards a gradual unification of general conditions for the supply and consumption of heat from the distribution network, and towards the comparability of the tariff systems for the supply and consumption of heat from the distribution network with respect to all local communities or the providers of heat distribution. The Energy Agency issued two methodologies for setting general conditions for the supply and consumption of heat from the distribution network, and for the preparation of the tariff systems for the supply and consumption of heat from the distribution network.



3.1 GENERAL INFORMATION

In 2005 the end customers consumed 12,389 GWh of electricity, which was 320 GWh, or 2.6 percent, more than in the previous year. The consumption of the customers connected to the distribution networks increased the most, as it was bigger than the consumption in 2004 by 4.8 percent. On the other hand, the customers on the transmission network consumed 0.3 percent less electricity. Of the total available sources in the territory in Slovenia, Holding Slovenske elektrarne, d. o. o., provided the most energy for the purpose of Slovenian consumption, which was as much as 76.3 percent. One part of the remaining required amount, i.e., 11.4 percent of electricity, was provided by the other power stations connected to the transmission and distribution networks; the rest was provided by suppliers from abroad. In 2005 imports covered 12.3 percent of Slovenia's demand for electricity.

In comparison with the previous year, the production of electricity in Slovenia was lower by 1.2 percent. This reduced production was mainly a result of unfavourable hydrologic conditions. The production of electricity in hydroelectric power stations was, in comparison with 2004, lower by as much as 16 percent. On the other hand, the production of the nuclear power station was larger than expected, with a production growth of as much as 7.7 percent. In addition, there was an increase in the production of some thermoelectric power stations that, on average, achieved a 4.3-percent growth in comparison with the previous year. The demand for electricity significantly increased in the last three months of 2005, when the peak consumption exceeded 2000 MW – in November it amounted to 2043 MW, which was 45 MW more than in November 2004.



Balance of electricity production and consumption in 2005 - in GWh (Source: Energy Agency)



Structure of the production and flows of electricity (Source: Eles)



Table 1	\frown	2004	2005	05/04
	Hydroelectric power stations	3,603	3,036	84.3
	Thermoelectric power stations	4,545	4,601	101.2
	Nuclear power station	5,211	5,613	107.7
	Small, qualified producers	476	417	87.0
	Total production in the Republic of Slovenia	13,835	13,667	98.
	Imports – flows to Slovenia	4,885	9,326	190.9
	Total	18,720	22,993	122.8

Energy Agency

The data about the production (Table 1) covers the whole of the production of the nuclear power station (HNPSK) including the half that is exported to Croatia and is included in the data about exports – flows from Slovenia.

Table 2	\frown	2004	2005	05/04
	Eligible customers on the transmission network	2,783	2,775	99.7
	Eligible customers on the distribution network	5,488	6,539	119.2*
	Tariff customers	3,795	3,075	81.2*
	Total consumption in the Republic of Slovenia	12,066	12,389	102.7
	Exports – flows from Slovenia	5,128	9,548	186.2
	Total	17,194	21,937	127.6
	* - in 2005 most of the non-household customers became elig	ible customers		





FIGURE 4

Structure of production sources for electricity in Slovenia for 2005 (Source: Energy Agency)

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3.2 REGULATION AND REGULATED ACTIVITIES

3.2.1 General information

In the energy sector the services of electricity transmission and distribution are regulated. The regulation includes the following:

- the prices for network services,
- the regulation of the quality of supply to customers,
- various aspects relating to the transparency of market operation.

For the regulation various tools are applied, such as general acts issued by the Energy Agency, or approvals and opinions relating to general acts issued by the Energy Agency or other responsible authorities.

Elements of regulation



3.2.2 Regulation of transmission and distribution activities

The activities of the transmission system operator and distribution system operator are mandatory national public services (PSs). On the basis of the Public Services Act (The Official Gazette of the Republic of Slovenia, Nos. 32/93 and 30/98) these public services provide material amenities, such as the products and services whose permanent and uninterrupted provision is in the public interest, for the purpose of meeting public demands, to the required extent, whenever these cannot be guaranteed by the market. The mode of carrying



out a public service is determined by the government with an appropriate ordinance, in which it also defines the sources for financing.

In Slovenia, Elektro-Slovenija, d. o. o. (henceforth referred to as Eles) provides the public service of the transmission system operator as its single service. The public service of the distribution system operator is carried out by five providers as a service with separate account management:

- Public company for the distribution of electricity, Elektro Celje, d. d.,
- Public company for the distribution of electricity, Elektro Gorenjska, d. d.,
- Public company for the distribution of electricity, Elektro Ljubljana, d. d.,
- Public company for the distribution of electricity, Elektro Maribor, d. d.,
- Public company for the distribution of electricity, Elektro Primorska, d. d..

In addition to carrying out the public service of distribution system operation, these distribution companies also provide the mandatory public service of electricity supply to tariff customers, as well as market-based activities such as electricity supply to eligible customers and service activities.

The state is the sole owner of Eles, and the majority owner of the other public companies for electricity distribution, with an ownership share of 79.5 percent.

In line with the Ordinance Regarding the Operating Mode of the Public Service of the System Operator of the Transmission Network for Electricity (the Official Gazette of the Republic of Slovenia, No. 114/04), the public service of the transmission system operator is financed from the network charges and other sources. In line with the Ordinance Regarding the Operating Mode of the Public Service of the System Operator of the Distribution Network for Electricity, and the Public Service of Supplying Electricity to Tariff Customers (the Official Gazette of the Republic of Slovenia, No. 117/04), the public service of the distribution system operator is financed from the network charges and other sources. The Energy Agency sets the network charge for the use of electricity networks. The network charge covers the costs of management, operation and maintenance of the network, the network development, the costs of covering technical losses of electricity in the network and the costs of ancillary services.

3.2.2.1 The business operation of the transmission system operator

Eles ended the financial year 2005 with a profit of 2153.3 million tolars, which is 27.8 percent more than in 2004. In the regulatory framework the Energy Agency expected, for 2005, the revenue from the network charge for the transmission network to be 11,563.3 million tolars. Because of the higher-than-expected consumption of electricity the revenue from the network charge was higher, i.e., by 6.2 percent, amounting to 12,280.2 million tolars. Very good financial results for 2005 were also influenced by additional revenues from the mechanism of cross-border trading, which are taken into account when setting the network charge for the next regulatory period. In addition, the revenues from auctioning free cross-border capacities also contributed a share to the good financial results.

The expected revenues from the ancillary services for 2005 were 6697.3 million tolars, while the realised revenues were 6725.5 million tolars. The total revenues from the ancillary services and an excessive receipt of reactive energy were 6819.5 million tolars, while the costs amounted to 6259.4 million tolars. With regard to this item, Eles had a profit of 560.1 million tolars. Eles also had a profit from preferential dispatch, i.e., 660.6 million tolars.

At the end of 2005 Eles had 471 employees, which was ten employees fewer than in the previous year.



3.2.2.2 The business operations of the distribution system operators

In 2005 distribution companies had a total profit of 2944.4 million tolars for the service of operating distribution networks, which was 952 million tolars, or 24 percent, less than in 2004.

				Index
Table 3		2004	2005	05/04
	Elektro Celje, d. d.	793.0	244.0	30.8
	Elektro Primorska, d. d.	758.8	30.0	4.0
	Elektro Gorenjska, d. d.	352.3	387.0	109.8
	Elektro Ljubljana, d. d.	1,154.5	1,117.6	96.8
	Elektro Maribor, d. d.	838.2	1,165.8	139.1
	Total distribution	3,896.7	2,944.4	75.6

Companies' data

Financial results for the services of the distribution system operators

The revenues from the network charge were, in comparison with the expectations for 2005 from the regulatory framework, higher by 0.3 percent, or 117.9 million tolars. This is mostly a result of the difference between the expected and realised consumption of electricity. In comparison with 2004, the revenues from the network charge were higher by 3.2 percent, or 1393.8 million tolars.

Table 4		Realisation	2004 Regulatory framework	· · · · · · · · · · · · · · · · · · ·		2005 Regulatory framework	· · ·	Index 05/04
	Elektro Celje, d. d.	8,203.0	8,041.0	102.0	8,327.4	8,189.1	101.7	101.5
	Elektro Primorska, d. d.	6,772.9	6,593.4	102.7	6,558.8	6,572.6	99.8	96.8
	Elektro Gorenjska, d. d.	4,981.4	4,999.8	99.6	5,118.9	5,018.6	102.0	102.8
	Elektro Ljubljana, d. d.	13,103.6	13,008.4	100.7	13,454.5	13,486.3	99.8	102.7
	Elektro Maribor, d. d.	9,923.7	9,956.9	99.7	10,918.7	10,993.8	99.3	110.0
	Total distribution	42,984.6	42,599.5	100.9	44,378.3	44,260.4	100.3	103.2

Source: Companies' data

Comparison between the realised and expected revenues from the network charge

In addition to the network charge, another source of financing the system operators is the amount charged for the average costs of making a connection that are set by the Energy Agency. For 2005 the expected revenue from this source was 912.8 million tolars, while the realised revenue was 1623.8 million tolars. In 2005 the total value of realised revenues from the network charge and the average costs of making a connection exceeded the expected value by 829 million tolars, i.e., by 1.8 percent.



	-	1.				2.2			- E.
		2004			2005				
			Index			Index	Index		
	Expectation 1	Realisation		Expectation 4	Realisation 5		05/04 7=5/2		ble 5
elektro Celje, d. d.	8,166.0	8,441.0	103.4	8,314.1	8,626.8	103.8	102.2	rs	
lektro Primorska, d. d.	6,693.4	6,963.0	104.0	6,672.6	6,772.8	101.5	97.3	tola	
Elektro Gorenjska, d. d.	5,118.5	5,089.8	99.4	5,137.4	5,303.6	103.2	104.2	oft	
Elektro Ljubljana, d. d.	13,308.4	13,580.4	102.0	13,786.3	14,057.4	102.0	103.5	lions	
Elektro Maribor, d. d.	10,225.9	10,236.6	100.1	11,262.8	11,241.5	99.8	109.8	milli	
Total distribution	43,512.2	44,310.8	101.8	45,173.2	46,002.1	101.8	103.8	. <u>.</u>	

3.2.2.3 The business operations of the distribution companies

In comparison with 2004, the financial results for the electricity-distribution companies were, in 2005, lower by 24.1, or 1402.1 million tolars. The total net profit of all the companies for electricity distribution amounted to 4419.8 million tolars.

Elektro Celje, d. d. 875.3 517.8 59.2 sep Elektro Primorska, d. d. 859.4 368.3 42.9 1 Elektro Gorenjska, d. d. 815.8 523.1 64.1 1 Elektro Ljubljana, d. d. 1,995.6 1,784.5 89.4 1 Elektro Maribor, d. d. 1,275.8 1,226.2 96.1 1 Total distribution 5,821.9 4,419.8 75.9 1		2004	2005	Index 05/04	Table 6
Elektro Primorska, d. d.859.4368.342.91Elektro Gorenjska, d. d.815.8523.164.15Elektro Ljubljana, d. d.1,995.61,784.589.41Elektro Maribor, d. d.1,275.81,226.296.1					0
Elektro Primorska, d. d. 859.4 368.3 42.9 7 Elektro Gorenjska, d. d. 815.8 523.1 64.1	Elektro Celje, d. d.	875.3	517.8		
Elektro Ljubljana, d. d. 1,995.6 1,784.5 89.4 Elektro Maribor, d. d. 1,275.8 1,226.2 96.1	Elektro Primorska, d. d.	859.4	368.3	42.9	
Elektro Maribor, d. d. 1,275.8 1,226.2 96.1	Elektro Gorenjska, d. d.	815.8	523.1	64.1	
	Elektro Ljubljana, d. d.	1,995.6	1,784.5	89.4	
Total distribution 5,821.9 4,419.8 75.9	Elektro Maribor, d. d.	1,275.8	1,226.2	96.1	
	Total distribution	5,821.9	4,419.8	75.9	
	Profit or loss for electricity-distribution				Companies' dat

In 2005 the companies for the distribution of electricity made a huge loss in the public service of the supply to tariff customers, i.e., 5200.1 million tolars, which was 7.5 percent larger than the loss made in 2004.

By carrying out market-based activities in 2005, the electricity-distribution companies made a profit of 6675.6 million tolars, which was 1.3 percent less than the previous year.

	2005 Market- based				Index 05/04 Market- based					
	DSO	STC	activities	Company	DSO	STC	activities	Company	Table	2 7
Elektro Celje, d. d.	244.0	-1,122.1	1,395.8	517.8	30.8	123.0	140.4	59.2	s	
Elektro Primorska, d. d.	30.0	-780.3	1,118.6	368.3	4.0	116.4	145.1	42.9	tola	
Elektro Gorenjska, d. d.	387.0	-662.9	799.0	523.1	109.8	186.0	97.4	64.1	đ	
Elektro Ljubljana, d. d.	1,117.6	-1,875.5	2,542.4	1,784.5	96.8	106.5	97.7	89.4	lions	
Elektro Maribor, d. d.	1,165.8	-759.5	819.9	1,226.2	139.1	66.9	52.1	96.1	nill	
Total distribution	2,944.4	-5,200.1	6,675.6	4,419.8	75.6	107.5	98.7	75.9	-	
Profit or loss by act	ivity								Source	:

ιιγ

Companies' data



At the end of 2005 the companies for electricity distribution had a total of 3383 employees. In comparison with the previous year this was a 0.2-percent increase in the number of staff, which was a result of additional responsibilities arising from the amended EA.

3.2.2.4 The investments of the system operators

The provisions of Articles 22 and 23a of the EA oblige the system operators, with regard to the transmission and distribution networks, to maintain and develop the network, provide long-term network capacities and the reliability of the electricity supply. The legislation thus obliges the system operators to continually, considerately and effectively invest in the development and reconstruction of the electricity network.

For the purpose of constructing new capacities and upgrading the existing capacities on the transmission and distribution networks, in 2005 the companies, operating in the framework of the activities of the system operator, allocated a total of 28,740 million tolars, which was 16 percent more than in 2004. The value of the investments in the assets on the distribution network exceeded the investments in 2004 by 9 percent, and the value of the investments on the transmission network exceeded the investments in the previous year by 45 percent. As the accountancy data of the companies show that more than 60 percent of the value of the assets has been written off, we can expect, in future years, a similar growth trend, or at least the maintenance of the same level of investment that they had in 2004 and 2005.

In 2005 the investments in the construction and reconstruction of the electricity network exceeded the value that the Energy Agency expected in the regulatory framework by 8 percent. The investments on the distribution networks exceeded the value of investments expected in the regulatory framework by 15 percent, while the investments on the transmission network remained below the expected value.

		2004		2005	Index		
Table 8		Realisation 1	Regulatory framework 2	Realisation 3	05/04 4=3/1	real./reg. framework 5=3/2	
	Elektro Celje, d. d.	3,579	3,692	4,259	119	115	
	Elektro Gorenjska, d. d.	2,640	2,754	2,980	113	108	
	Elektro Ljubljana, d. d.	6,708	5,504	6,386	95	116	
	Elektro Maribor, d. d.	4,090	3,963	4,986	122	126	
	Elektro Primorska, d. d.	3,181	3,159	3,389	107	107	
	Total distribution	20,199	19,071	22,000	109	115	
	Elektro-Slovenija, d. o. o.	4,632	7,617	6,740	145	88	
	Total	24,832	26,688	28,740	116	108	

In 2005 the companies allocated 14,478 million tolars, which is 50 percent of the investments, for the construction and purchase of new assets in the network (new constructions), and 14,263 million tolars for the reconstruction and modernisation of electricity facilities. In 2004 they allocated 56 percent of the investments for the construction and purchase of new assets, and 44 percent for the reconstruction and modernisation of the existing assets. In 2004 and 2005 the ratio between the funds allocated for the reconstructions and new investments did not change significantly.





Reconstructions and new investments of the companies for transmission and distribution in 2005 (Source: Companies' data and the Energy Agency)

The distribution system operators financed the majority of the investments by using the amortisation costs of 12,760 million tolars, which was 59 percent of all the investments. They obtained the rest of the funds by using other resources of their own, amounting to a total of 4249 million tolars (the profit from the current year and from the previous years), as well as by raising loans from banks, 3792 million tolars, and using the co-investments of the network users, 1199 million tolars.

The transmission system operator financed 69 percent of the investments by using the amortisation costs of 4655 million tolars, and 31 percent, or 2085 million tolars, by using other resources of its own.



Structure of sources of funds used for the investments within public services (Source: Companies' data)

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3.2.2.5 Future development of the electricity network

In line with the requirements of the EA, all six system operators prepared, in the first half of 2005, the amended ten-year development plans for the period 2005–2014. The development plans for individual networks have been updated mainly on the basis of the realisation achieved in the previous period, the analysis of the trends of electricity consumption, and the reliability indicators. When the Minister of Economic Affairs approved the development plans and presented them to the Government of the Republic of Slovenia, the investment plan was also determined, mainly with respect to new investments, reconstructions and renovations of the electricity infrastructure.

The companies expect that the total investments in the next ten years will amount to 354,444 million tolars. Eles expects to invest 115,554 million tolars, while the distribution system operators plan to invest a total of 238,890 million tolars. With most of the operators the investments are expected to increase until 2008, and after this they will decrease. This is particularly obvious in the case of Eles, which plans larger investments in the 400-kV network for 2007–2011. These investments will include the development of the internal network (Beričevo–Krško), as well as constructions of new connections with Italy (Okroglo–Videm) and Hungary (Cirkovce–Hevitz). These connections will allow an increase in the cross-border transmission capacities in the east–west direction.

Distribution companies expect to invest in the development of medium-voltage and low-voltage networks, aiming at increasing the capacities, voltage quality, supply reliability, and the ability to connect new customers for electricity.



Expected investments of distribution and transmission system operators for 2005–2014 (Source: Companies' data)

3.2.2.6 The business operation of the market operator

At the end of 2005, Borzen, d.o.o., had 24 employees that generated 571.4 million tolars of revenues. These results exceeded expectations by 3 percent and the revenues in 2004 by 8.6 percent. The total expenditure amounted to 543.9 million tolars and was, in comparison with 2004, higher by 5.7 percent, while in comparison with the expectations, it was slightly lower. The net profit amounted to 23.1 million tolars and was, in comparison with 2004, higher by 117 percent.



3.2.3 Unbundling of services

The transmission system operator for the whole of Slovenia is a single legal entity that does not carry out any other activity and whose sole owner is the state.

The EA stipulates, in its Article 38, that the legal entities that carry out:

- more than one energy-related activity in the area of supply with electricity,
- more than one energy-related activity in the area of supply with natural gas,
- in addition to an activity in the area of supply with electricity, also another activity (either another energyrelated activity or a market-based activity),
- in addition to an activity in the area of supply with natural gas, also another activity (either another energy-related activity or a market-based activity),

have to provide separate management of accounts for each energy-related activity in line with Slovenian Accounting Standards. For this reason, the companies for electricity distribution maintain separate accounts by activity. In line with this arrangement, an appropriate management of the energy infrastructure, required for the performance of the activities of the distribution system operators, is also provided for.

The state is the majority owner of the companies for electricity distribution, holding a 79.5-percent share. None of these companies produces electricity within the same legal entity.

For the purpose of the separate management of accounts, legal entities have to produce rules that can only be changed in exceptional circumstances and for well justified reasons. The Energy Agency has to give approval to these rules, while their realisation has to be audited and disclosed in the annual report of each company.

In the audited annual reports, the companies have to disclose, in line with the Slovenian Accounting Standards, all the important items related to associated entities (legal entities or individuals). In doing this, they should disclose the items that relate to a company as a whole, not relating only to the activity of the system operator. The companies define the levels of importance of these items in their internal acts.

The system operators report annually to the Energy Agency and make their financial statements publicly available.

The companies that provide mandatory public services, list their activities on their websites:

- Elektro-Slovenija, d. o. o., Hajdrihova 2, 1000 Ljubljana, www.eles.si,
- Elektro Celje, javno podjetje za distribucijo električne energije, d. d., Vrunčeva 2a, 3000 Celje, www.elektro-celje.si,
- Elektro Primorska, javno podjetje za distribucijo električne energije, d. d., Erjavčeva 22, 5000 Nova Gorica, www.elektro-primorska.si,
- Elektro Gorenjska, javno podjetje za distribucijo električne energije, d. d., Ulica Mirka Vadnova 3a, 4000 Kranj, www.elektro-gorenjska.si,
- Elektro Ljubljana, javno podjetje za distribucijo električne energije, d. d., Slovenska cesta 58, 1516 Ljubljana, www.elektro-ljubljana.si,
- Elektro Maribor, javno podjetje za distribucijo električne energije, d. d., Vetrinjska ulica 2, 2000 Maribor, www.elektro-maribor.si.

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3.2.4 The network charges for the transmission and distribution networks

3.2.4.1 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 and for the distribution networks. For the first regulatory framework 2003–2005, the Energy Agency set the network charges on the basis of the criteria for the eligibility of costs and the methodology for setting the network charges for the transmission and distribution networks. The Energy Agency prepared the network charges at the end of 2002, and, after obtaining approval from the government, published them in the Rules Amending the Rules for Setting the Prices for the Use of Electricity Networks and the Criteria for the Eligibility of Costs (the Official Gazette of the Republic of Slovenia, No. 109/02).

The first three-year regulatory period started on 1 January 2003 and finished on 31 December 2005. With respect to economic regulation, the method of price capping included in the price basket was applied. On the basis of the adopted and published methodology, the Energy Agency prepared calculations of the required and balanced revenues from the network charge for all three years of the regulatory period, and a proposal for a changed network charge. The network charges calculated on the basis of these methodologies were published in the Rules Amending the Rules for Setting the Prices for the Use of Electricity Networks and the Criteria for the Eligibility of Costs (the Official Gazette of the Republic of Slovenia, No. 11/03).

At the end of the first year of the regulatory period, in December 2003, the Government of the Republic of Slovenia adopted an ordinance, with which it set a fixed network charge for the distribution and transmission networks for a period of six months, and suggested that the Energy Agency should prepare a proposal for a changed regulatory framework for the setting of the network charge. Thus, in July 2004 the Energy Agency corrected the calculation of the required revenues from the network charge for 2004 and 2005. The corrections were taken into account in the Act Determining the Methodology for Charging for the Network Charge and the Methodology for Setting the Network Charge for Electricity Networks (the Official Gazette of the Republic of Slovenia, No. 84/2004).

Integral parts of the Act Determining the Methodology for Charging for the Network Charge and the Methodology for Setting the Network Charge for Electricity Networks are the following annexes:

- the starting points for economic regulation;
- the parameters for setting the network charge for electricity networks in 2004 and 2005;
- the ratios between the tariffs with regard to the seasons and the daily tariff time;
- the correction factors valid since 1 August 2004, which represent the mechanism for balancing the differences between the balanced revenues and the expected revenues of individual providers of the public services of system operators, and are used in the contracts regarding access to the transmission network between the distribution system operator and the transmission system operator.

On the day of enforcement of the above-mentioned act, the Rules for Setting the Prices for the Use of Electricity Networks and the Criteria for the Eligibility of Costs (the Official Gazette of the Republic of Slovenia, No. 134/03) ceased to have effect.

Together with the above-mentioned act, the Decision on Setting the Network Charge for the Use of Electricity Networks was published; it determines the network-charge tariffs for the following:

- the transmission network,
- the distribution network,
- ancillary services,
- specialised ancillary services,



- the use of the cross-border transmission capacities of interconnecting lines,
- the average cost for making a connection.

The Energy Agency sets the network-charge tariffs with the aim to:

- stimulate the cost effectiveness of the providers based on the principle of price capping:
 - separately for the transmission and distribution networks;
 - separately for individual ancillary services, except for those services for which a competitive market is organised;
- continually increase, or maintain, the level of electricity quality, which includes supply quality, supply reliability and quality of services in the area of electricity;
- encourage network users to optimally use the networks;
- keep the tariffs transparent;
- encourage the sustainable operation of the providers of the public services of the system operators without operating losses and with a restricted return on assets;
- provide stable conditions in the area of the transmission and distribution of electricity, and a stable environment for the investors or owners;
- encourage the network development, so that the quality of the transmission and distribution of electricity is continually increased or maintained.

The eligibility of costs is assessed separately for the following:

- 1. the expenditure relating to the investments in the infrastructure, reduced by the revenues from the average charges for making a connection to a network, and from co-investments;
- 2. the costs of current operation, including the costs of materials, services and labour, reduced by the revenues that the regulated services generate in addition to the network-charge revenues;
- 3. the costs of purchasing electricity to cover the losses in the network.

The price is the result of the required revenue and the forecasted amount of electricity consumption. The Energy Agency defines the forecasted consumption on the basis of weights, such as the realised amounts in the past, and balances it with the forecasted consumption of the regulated companies.

The estimation of the required revenues for the regulated services is based on the total costs for four main components: eligible costs of operation and maintenance, amortisation, return on assets, and losses in the network. The estimation of the required revenues of the transmission system operator also includes a fifth component – the costs of ancillary services.

The eligible costs are those that are established, for a regulatory period, also on the basis of benchmarking. By using the benchmarking methods, which take into account specific characteristics regarding the specific network of each company, the companies are guaranteed unified conditions for establishing their relative business effectiveness.

For the purpose of establishing eligible costs, the Energy Agency analyses in detail the financial statements of the regulated companies by individual activity, and, on the basis of additionally required detailed data about their operation, prepares the basis for the benchmarking.

In line with the EA, the Energy Agency issues the general act determining the methodology for charging for the network charge, with which it determines the structure of the tariff system. The Energy Agency also issues the general act determining the methodology for setting the network charge and the criteria for establishing eligible costs, as well as the system of charging for these charges, with which it sets the network charge for the use of electricity networks.

3.2.4.1.1 The regulatory framework for setting the network charge in the period 2006–2008

In 2005 the Energy Agency carried out a number of activities related to the preparation of the regulatory framework for setting the network charge in the period 2006–2008, and the preparation of a proposal for the network charge for 2006. The Energy Agency prepared a consultation paper, an amended Act Determining the Methodology for Charging for the Network Charge and the Methodology for Setting the Network Charge, as well as the Criteria for Establishing Eligible Costs for Electricity Networks. It also prepared the Decision on Setting the Network Charges. The amended general act introduced a change in the calculation of the network charge for the customers of high- and medium-voltage electricity, for which the number of seasonal calculations was reduced from three periods to two periods. The amended document also determined two new customer groups (the customers of medium-voltage electricity connected to the DTS busbars, and the customers of low-voltage electricity connected to the TS busbars).

In comparison with 2005, the network charges for the distribution and transmission networks will, in 2006, remain unchanged, while in the next two years the network charge for the distribution networks will increase, by 3.5 percent in 2007 and by 3.2 percent in 2008. The network charge for the transmission network will remain the same for the whole of the regulatory period.

3.2.4.2 Supply quality

The process of deregulation and liberalisation of the electricity market requires, in Slovenia as well, that the companies carrying out the activities of the transmission and distribution system operators sensibly reduce the expenses and, at the same time, provide for an appropriate quality of supply.

In the Act Determining the Methodology for Charging for the Network Charge, the Methodology for Setting the Network Charge, and the Criteria for Establishing Eligible Costs for Electricity Networks (the Official Gazette of the Republic of Slovenia, No. 121/05), the Energy Agency determined the quality parameters that it will monitor and control.

3.2.4.2.1 Commercial quality

The general commercial quality refers to the services that a system operator can provide, but, due to technical characteristics of the network, the system operator cannot guarantee these services to all network users. The Energy Agency intends to monitor the following mandatory indicators of the general commercial quality:

- the time needed to reconnect the supply of electricity in cases of unforecasted interruptions;
- the time needed to complete minor repair works (replacement of a meter, construction of a new low-voltage connection, etc.);
- the time needed to connect a user to a network;
- the time needed to answer customers' questions.

With respect to the individual parameters of commercial quality, the minimum response times are important, and a system operator must be able to guarantee them to all the network users:

- the time needed for reconnecting;
- the time needed for replacing a blown fuse;
- the time span for a forecasted visit;
- the time needed for giving information about making a connection;
- the time needed for solving a complaint about a meter;



- the time needed for solving a complaint about costs or payments;
- the time needed for activating a connection.

In order to improve or maintain a level of individual commercial quality, a system operator has to monitor its parameters.

3.2.4.2.2 Supply reliability

In line with the above-mentioned act, the SAIDI and SAIFI system factors will be used by individual distribution system operators for the purpose of monitoring the reliability of supply to customers.

SAIDI (the System Average Interruption Duration Index) indicates a ratio between the total duration of interruptions to the customer supply and the total number of customers supplied from a particular point. It gives us the average time that a customer is without electricity supply. The SAIDI factor equals the CML indicator (Consumer Minute Lost).

SAIFI (the System Average Interruption Frequency Index) indicates the ratio between the total number of interruptions to the customer supply and the total number of customers supplied from a particular point. It gives us the average frequency of interruptions to a customer's electricity supply.

In the Act Determining the Methodology for Charging for the Network Charge and the Methodology for Setting the Network Charge, as well as the Criteria for Establishing Eligible Costs for Electricity Networks, the Energy Agency included these two parameters in the Q factor in the non-equation relating to the regulation of the network charges for the transmission and distribution networks by applying price capping. The annex that is part of this general act stipulates that the Energy Agency shall publish the mode of monitoring the parameters of commercial quality and the functional connection between the reliability of the supply with electricity and eligible revenues. In the first regulatory framework (2003–2005), the quality parameters did not yet affect the eligible revenues of the system operators. However, in the second regulatory period, 2006–2008, the Energy Agency will monitor and control the quality parameters. The Q factor that will affect eligible costs is expected to be determined for the regulatory period after 2008. When determining the Q factor, the recommendations prepared by the CEER will be taken into account.

3.2.4.2.3 Voltage quality

The Act Determining the Methodology for Charging for the Network Charge and the Methodology for Setting the Network Charge, as well as the Criteria for Establishing Eligible Costs for Electricity Networks stipulates that a system operator shall monitor the voltage quality at the border between the transmission and distribution networks in line with the technical standards.

The legislation allows the conclusion of a contract concerning the quality of electricity supply; however, in 2005 no such contract between the customers and the system operators was made.

3.2.4.2.4 Supply quality in 2005

Each year, by the end of April, the system operators of electricity networks have to prepare a report on the voltage quality, the reliability of supply to customers, and the commercial quality for the previous calendar year (the Ordinance Regarding the Operating Mode of the Public Service of the System Operator of the Distribution Network for Electricity, and the Public Service of Supplying Electricity to Tariff Customers, the Official Gazette of the Republic of Slovenia, No. 117/04). After reviewing the reports for 2005, the Energy Agency found that the reports did not include all the required data. In addition, the reliability indicators (uninterruptibility) were not classified by network type. The reports include the data about the average duration and average number of interruptions that can be compared with data provided by the other system operators in the EU. The voltage quality was measured in line with the European technical standard SIST EN 50160:2001 – Voltage Characteristics of Public Distribution Networks.



When comparing the Slovenian data relating to the SAIDI quality parameter with the data provided by the other operators from the EU that was published in the CEER's Third Benchmarking Report on the Quality of Electricity Supply for 2005, we can establish that the supply quality of Slovenian distribution is comparable with the developed countries of the EU. The data relating to the System Average Interruption Duration Index varies because of the different uses of the methodologies. In the case of Slovenia the SAIDI was only determined at the distribution level. The SAIDI-related data shows that the availability of the supply on Slovenian distribution networks was in the range 99.96–99.98 percent. The data about the reliability of electricity supply in Slovenia from Table 9 includes only the details relating to two distribution system operators. The data relating to other countries was also weighted in different ways and is not directly comparable.

Table 9	Country	SAIDI/minute per customer/
	Austria (HV, MV)	30
	France (LV)	50
	Great Britain (HV, MV, LV)	60
	Italy (HV, MV, LV)	75
	Ireland (HV, MV, LV)	150
	Portugal (HV, MV, LV)	150
	Spain (HV, MV, LV)	120
	Slovenia (MV)	80 to 200
Source: CEER	System average interruption duration	indexes

3.2.4.3 The prices for the use of electricity networks

The total price, or final price, for the supplied energy includes the price for the energy and the price for the use of networks that the customers or the suppliers of electricity pay to the system operators depending on their classification in the customer groups, and depending on their electricity consumption. The price for the use of an electricity network consists of the network charge for the transmission and distribution networks, and the supplements used for the operation of the electricity system. The supplements to the network charge are used for covering the costs of the Energy Agency's operation, the compulsory purchase of electricity from qualified producers, and recording the concluded contracts for electricity supply.

The Energy Agency sets the network charge that is used for covering the eligible costs of the electricitynetwork operation, the investments in the infrastructure of the public services of the transmission and distribution of electricity, and the costs of ancillary services. On the other hand, the Government of the Republic of Slovenia sets the supplements included in the use-of-network price.

Different customers were paying different prices for the use of networks. Eligible customers connected to the high-voltage network used almost 23 percent of the electricity consumed in 2005; eligible customers connected to the distribution network used 53 percent, and households used 24 percent of the electricity. The average price for the use of the networks in Slovenia, taking into account all the customers by customer group, was 5.92 tolars/kWh. The customers connected to the low-voltage network were, on average, paying 10.57 tolars/kWh for the use of the network, the industrial customers connected to the medium-voltage network were paying 3.38 tolars/kWh, and the customers connected to the high-voltage network were paying 1.29 tolars/kWh.





The use-of-network-price share included in the final price depends mainly on the price for electricity given to an individual customer group. According to the electricity suppliers, the electricity price for eligible customers, formed on the market, depends on the amounts of consumed electricity and the profile of a customer's consumption. In the case of increased amounts of consumed electricity and the profile of the base-load consumption, the price of electricity decreases, while in the case of a reduced amount of consumed electricity and a volatile daily, or monthly, consumption, the price will increase.



Figures 11 and 12 show the ratios of the price elements and the shares of the elements included in the use-of-network prices for typical industrial customers.

Shares of the elements included in the use-of-network price, and shares of the elements included in the final electricity price for a typical industrial customer (I_g - 4 MW, 24 GWh) (Source: Energy Agency)





33 Shares of the elements included in the use-of-network price, and shares of the elements included in the final electricity price for a typical industrial customer (I_b - 50 kW, 50 MWh) (Source: Energy Agency) • Ancillary services – 0.77 tolars/kWh • Transmission network charge – 1.82 tolars/kWh Energy Agency – 0.04 tolars/kWh • Distribution network charge – 8.37 tolars/kWh Preferential dispatch – 0.92 tolars/kWh Ancillary services – 0.77 tolars/kWh • Borzen – 0.03 tolars/kWh • Energy Agency – 0.04 tolars/kWh Transmission network charge – 1.82 tolars/kWh Preferential dispatch – 0.92 tolars/kWh Distribution network charge – 8.37 tolars/kWh Borzen – 0.03 tolars/kWh Energy – 13.28 tolars/kWh 6.4% 7.2% 0.3% 70.0% 52.6% 7.7% 0.3% 33.2% 15.3% 3.1% 0.2% 0.1% 3 Shares of the elements included Shares of the elements included in the final electricity price in the use-of-network price FIGURE 12

In 2005 the average use-of-network price for a typical industrial customer I_b (50 kW, 50 MWh) was 11.95 tolars/kWh, and for a typical industrial customer I_q (4 MW, 24 GWh) it was 2.69 tolars/kWh.

In the case of household customers, the electricity price is formed on the basis of the Ordinance on the Tariff System for the Sales of Electricity (the Official Gazette of the Republic of Slovenia, No. 36/04), which expects the price to be formed on the basis of the elements determined by the ordinance. The final price that the suppliers charge to tariff customers includes the price for the supplied electricity, the costs of the supplier, the price for the use of the network, the excise duty, and the value-added tax. Approximately one half of the final price is determined by the Government of the Republic of Slovenia, and one half by the Energy Agency. The largest share of the final price is taken by the price for electricity – just over 40 percent.



- Transmission network charge 1.57 tolars/kWh
- Distribution network charge 7.51 tolars/kWh
- Transmission network charge 1.57 tolars/kWh
- Distribution network charge 7.51 tolars/kWh






Movements of the final electricity price for a typical household customer (Source: Energy Agency)

The price for the use of networks was, in all the years of the first regulatory period, stable, while the energy price was slightly on the increase with regard to the prices on the open market. However, the increase in the total price was within the limits of inflation, which represented a problem for the suppliers to tariff customers, because the inflation rate in 2005 was low, while the purchase prices of electricity were on the increase.

3.2.5 The allocation of cross-border transmission capacities and the congestionmanagement mechanisms

The year 2005 saw important changes relating to the congestion management that were, to a large extent, a result of the synchronisation of the first and second synchronisation zones of the UCTA interconnection at the end of 2004. With this synchronisation the opportunities for importing electricity from the eastern Balkans to Western Europe were created. In 2005 congestion was continually occurring at the Slovenia-Italy border in the direction of the export flow towards Italy, causing huge problems for the transmission system operator. The problems were especially serious in March, when the transmission system operator had to restrict the capacities at the Slovenia-Croatia border with respect to the imports from Croatia, as this was the only way of restricting the electricity flow on the transmission paths towards Italy, where the congestions occurred. For the same reason – to restrict the flows towards Italy – the transmission system operator also had to restrict the flows at the Slovenia-Austria border in the direction towards Austria, while at this border, in the direction towards Slovenia, congestion, unlike in previous years, did not occur.

Since 1 July 2004 the Regulation (EC) No 1228/2003 on Conditions for Access to the Network for Cross-Border Exchanges in Electricity has been valid in the countries of the EU. Among other things, this regulation requires a compulsory use of market-based methods for allocating free cross-border transmission capacities. In 2005 this provision did not apply to Slovenia. As on 28 June 2004 the EU Council issued the Regulation No 1223/2004 relating to the compulsory use of the market-based mechanisms for the allocation of free cross-border transmission capacities. In line with this regulation the Slovenian transmission system operator can, until 1 July 2007, use non-market methods for allocating free cross-border transmission capacities up to a maximum of half of the total available capacity. As a result Slovenia can, on all its borders, maintain the existing practice, according to which each of the neighbouring transmission system operators allocates a half



of the total available capacities. The transition period only applies to the compulsory use of market-based methods of allocating cross-border transmission capacities, while all the other provisions of the Regulation No 1223/2004 apply to Slovenia.

In 2005, it was mainly those network users that had access to cross-border transmission paths that obtained the capacities during the tenders carried out in June 2003. In addition, those network users that obtained network access during the tender carried out in December 2002, when the capacities for the period 2003–2005 were tendered, also had access to the network for exports to Italy. This allocation of cross-border transmission capacities was carried out on the basis of the calls for tenders that have been prescribed by the Slovenian Rules on the Mode and Conditions for the Allocation of and the Criteria for the Access to the Cross-Border Transmission Capacities (the Official Gazette of the Republic of Slovenia, Nos. 103/02 and 103/03). These calls for tenders were based on the method of proportional reduction (the so-called "pro rata" method).

In April 2005 the transmission system operator started to allocate free cross-border capacities at the borders with Croatia, Austria and Italy during the auctions that Borzen, the market operator, carried out on behalf of the transmission system operator. At these auctions they mainly allocated the free capacities of those transmission paths where there was no congestion in 2004, when the calls for tenders for the period until 30 June 2007 took place. These were mainly the transmission paths from Croatia to Slovenia, and from Slovenia to Austria. With respect to the transmission path from Slovenia to Italy, only small amounts of its capacities were available at the auctions, as the majority of the capacities was already allocated during the tenders.

On 25 April 2005, Borzen, the market organiser, started to carry out, under the authority of the transmission system operator, daily auctions for the allocation of free cross-border transmission capacities at the borders with Croatia, Italy and Austria. By the end of 2005 a total of 11 companies participated at the auctions. They took place every working day, for the capacities at the Croatia-Slovenia border and the Slovenia-Austria border a day in advance, and for the capacities at the Slovenia-Italy border four working days in advance.

In the observed period the individual marginal prices of the products varied significantly. They mainly depended on the electricity prices in the countries south of Slovenia, and on the electricity prices in Central Europe, Italy and Slovenia. Figures 15, 16 and 17 show the average prices at the auctions for allocating cross-border transmission capacities by individual product.



Movements of the marginal prices for the allocated cross-border transmission capacities at the Slovenia-Croatia border (Source: Borzen)





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Movements of the marginal prices for the allocated cross-border transmission capacities at the Slovenia-Austria border (Source: Borzen)



For an improved transparency of the cross-border trading, the TSO every day electronically published, on the basis of the provisions of the Ordinance Regarding the Operating Mode of the Public Service of the System Operator of the Transmission Network for Electricity (the Official Gazette of the Republic of Slovenia, No. 114/04), the data regarding the available cross-border transmission capacities. According to the data provided by the TSO, the data about the available capacities also included the expected amounts of the capacities for a week and a month in advance including a quantitative assessment of the expected reliability of the available capacities.

The TSO determined the free capacities and transmission reserves, which are based on the electrical and physical characteristics of the network, in agreement with the TSOs of the neighbouring countries.



3.3 MARKET-BASED ACTIVITIES AND COMPETITION

Since 15 July 2001 the electricity market in Slovenia has been gradually opening up. At first only the customers who had more than 41 kW of connected power at one consumption point had the right to choose their electricity supplier. On 1 July 2004, in line with the EA, other customers, except for households, obtained the right to choose their electricity suppliers. Thus, 97,025 customers, or 11.3 percent of the total 870,593 customers, had the right to choose their supplier in 2005. The consumption of these customers was 9314 GWh, or 75 percent of the total electricity consumed in Slovenia. After 1 July 2007 all the customers of electricity, including households, i.e., the tariff customers, which are the most numerous customers annually using about 3 TWh of electricity, will have the right to choose the electricity supplier.

Eligible customers cannot opt for electricity supply under the conditions of the tariff consumption.



Dynamics of liberalisation of the electricity market in Slovenia (Source: Energy Agency, system operators)

The degree of market liberalisation did not exert the expected influence on the market competition. The number of eligible customers does not exceed 100,000, or 12 percent of all electricity customers in Slovenia. Figures 19 and 20 show the amounts of consumed electricity and the ratios between the number of eligible customers and the number of tariff customers.





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3.3.1 Production and the wholesale market

According to the EA and the EU directive concerning the common electricity market, the production of electricity is a market-based activity. The only activity of the companies for electricity production that is included in the regulated activities is the provision of ancillary services. Namely, the companies for electricity production are also the main providers of the ancillary services that the TSO needs to operate the Slovenian electricity system. The Energy Agency sets the price for the ancillary services that all the users of the electricity



networks have to pay. The TSO, on the other hand, has to make sure that, for the funds obtained for this purpose from the network users, the providers of ancillary services ensure the appropriate extent and quality of these services.

3.3.1.1 The production of electricity

In Slovenia, in 2005, eight companies were involved in electricity production in large facilities with a capacity of over 10 MW. These companies are as follows:

- Drava Power Stations, Maribor, d.o.o. (DPSM),
- Sava Power Stations, Ljubljana, d.o.o. (SPSL),
- Soča Power Stations, Nova Gorica, d.o.o. (SPSNG),
- Nuclear Power Station, Krško, d.o.o. (NPSK),
- Thermoelectric Power Station, Šoštanj, d.o.o. (TPSŠ),
- Thermoelectric Power Station, Trbovlje, d.o.o. (TPST),
- Combined Heat-and-Power Station, Ljubljana, d.o.o. (CHPSL),
- Thermoelectric Power Station, Brestanica, d.o.o. (TPSB).

Three companies (DPSM, SPSL and SPSNG) generate electricity in hydroelectric power stations, one company (NPSK) in a nuclear power station, two companies (TPSŠ and TPST) in thermoelectric power stations running on coal, one company (CHPSL) cogenerates heat and electricity, and one company (TPSB) generates electricity from liquid and gas fuels. Since the summer of 2001 the following companies, DPSM, SPSL, SPSNG, TPSŠ and TPSB, together with the Coalmine, Velenje, have been operating within the holding company known as Holding Slovenske Elektrane, d.o.o. (HSE).

In addition to the system production in large power stations, the Slovenian electricity system also includes the production facilities of dispersed production, i.e., the power stations, which are, in comparison with large power stations, connected to a distribution network, not to the transmission network. With respect to these power stations, two types of production are mainly important in Slovenia, i.e., the production in small hydroelectric power stations and the industrial facilities for the cogeneration of heat and electricity. Small hydroelectric power stations are partly owned by the companies for electricity distribution and partly by individuals, for whom electricity production is mainly a collateral activity. Industrial facilities for cogeneration are owned by industrial companies, which fulfil their own demand for heat and partly for electricity in this way, and also sell any surpluses of generated electricity to other customers.

e 10 Producer	Installed capacity (MW)	Share
HSE	1,860	69.7%
– HSE hydroelectric	power stations 886	33.2%
– HSE thermoelectric	c power stations 974	36.5%
NPSK*	335	12.6%
TPST	164	6.1%
CHPSL	113	4.2%
Small producers on	the distribution network 196	7.3%
– small hydroelectri	c power stations 66	2.5%
- cogeneration	130	4.9%
Total in the Reput	lic of Slovenia 2,658	100%
– total on the transr	nission network 2,462	92.7%
* 50% share of the ins	nission network 2,462 talled capacity of the nuclear station Krško taken into account	

Source: Companies' data Installed capacities of the production facilities in Slovenia

To support electricity production that would not be competitive in the free market, the system of preferential dispatch is applied in Slovenia. This system allows the producers that are entitled to this support, to sell their electricity at guaranteed prices, which are higher than the prices on the open electricity market. The system operator of the network to which such a producer's facility is connected has to buy all the electricity produced in the facility that is eligible for support from the system of preferential dispatch. The difference between the guaranteed and the market-based prices is covered by the supplement to the use-of-network price, which is determined by the Government of the Republic of Slovenia. A producer that produces in such facilities can also sell electricity in the market at market-based prices, and in such cases it is entitled to a premium that actually represents the difference between the subsidised and the market-based prices. The government determined the latest change to the purchase prices and premiums on 29 January 2004 with the Decision Regarding the Prices and Premiums for the Purchase of Electricity from Qualified Producers of Electricity (the Official Gazette of the Republic of Slovenia, No. 08/04). At the end of 2005 there were 449 production facilities in Slovenia that had the status of a qualified power station, and were eligible for support from the preferential-dispatch system.

In 2005 Slovenian power stations generated a total of 13,667 GWh of electricity. The largest amount (41.1 percent) was generated by the nuclear power station, the thermoelectric power station generated 33.6 percent, and the hydroelectric power stations 22.2 percent. Small power stations connected to the distribution network generated 2.8 percent of the electricity, while small power stations connected to the transmission network generated 0.3 percent of all the electricity generated in Slovenia. The shares have been calculated by taking into account the total production of the nuclear power station; however, as, in line with the bilateral agreement between Slovenia and Croatia, half of the production from this power station belongs to Croatia, the actual Slovenian production of electricity was lower, amounting, in 2005, to 10,861 GWh. The largest share of electricity production in Slovenia, 42.3 percent, that actually belongs to Slovenian customers of electricity was, in 2005, contributed by the thermoelectric power stations. These are followed by the hydroelectric power station, 25.8 percent. Small power stations on the distribution network generated 3.5 percent of the total production, and small power stations on the transmission network 0.4 percent of the total production.

Type of production	Production (GWh)	Share Table 11
Nuclear power station*	2,807	25.8%
Thermoelectric power stations	4,601	42.3%
Hydroelectric power stations	3,036	28.0%
Other power stations on the transmission network	39	0.4%
Power stations on the distribution network	378	3.5%
Total	10,861	100%
* 50% share of the production of the nuclear station Krški	o taken into account	
Shares of different types of electricity prod	luction in Slovenia	Source: Companies'

3.3.1.2 The business operations of production companies

The companies for electricity production finished the year 2005 with a profit of 6790 million tolars, which was 9.6 percent less than the previous year. No company made a loss. By far the best financial result, 75.3 percent of the total profit of the companies for electricity production, was achieved by Drava Power Stations, Maribor, d.o.o., amounting to 5110 million tolars.

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able 12	0	2004	2005
	DPSM	4,674	5,110
	SPSL	501	69
	SPSNG	1,253	363
	TPSB	623	857
	TPSŠ	73	83
	TPST	34	42
	CHPSL	355	268
	NPSK	0	0
	Total	7,514	6,790

At the end of 2005 the companies for electricity production had 2351 employees, of which the hydroelectric power stations employed 546, the thermoelectric power stations employed 1235, and the Nuclear Power Station Krško employed 570 staff members. In comparison with 2004, the number of employees decreased by 5.1 percent, or 126 employees.

2004	2005	Index 05/04
300	294	98.0
127	126	99.2
128	126	98.4
122	123	100.8
592	561	94.8
284	250	88.0
314	301	95.9
610	570	93.4
2,477	2,351	94.9
	300 127 128 122 592 284 314	300 294 127 126 128 126 122 123 592 561 284 250 314 301 610 570

Source: Companies' data Number of employees in the companies for electricity production

The state is, directly or indirectly, the majority owner of all the companies for electricity production, except for the Nuclear Power Station Krško, where it holds a 50-percent share.

Table 14			Republic of Slovenia	HSE	Other shareholders	Municipality of Ljubljana	ELES GEN	electricity industry
	DI	PSM	0.1%	99.9 %				
	SF	PSL		79.5%	20.5%			
	SF	PSNG		79.5%	20.5%			
	TP	SB		79.5%	20.5%			
	TP	vsš		79.5%	20.5%			
	TP	PST	80.3%		19.7%			
	CH	HPSL	64.6%			35.4%		
	N	PSK					50.0%	50.0%

Source: Companies' data Ownership structure of the companies for electricity production



In 2005 the investments in the production facilities were mainly allocated for modernising the existing capacities and constructing new capacities. The HSE allocated the investments mainly for the construction of new hydroelectric capacities, i.e., the Hydroelectric Power Station, Boštanj, the first in a chain of hydroelectric power stations on lower Sava river, and the Pumped-Storage Power Station, Avče. In 2005 the reconstruction of the Hydroelectric Power Station, Medvode, was in progress. In the Nuclear Power Station, Krško, the planned modification of the technological systems was carried out. These investments increased the operational stability and the capacity of the nuclear plant. In the Thermoelectric Power Station, Trbovlje, the construction of the desulphurisation plant for exhaust gases was completed.

3.3.1.3 Emission coupons

The EU, as a joint signatory of the Kyoto Protocol, i.e., 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 percent by 2012 in comparison with the base year of 1986. Emissions trading is one of the instruments for achieving this objective.

The system of trading with emission coupons includes the facilities with an input heat power of 20 MW, and, with respect to energy sector, also the facilities with an input heat power of 15–20 MW. In line with the Directive 2003/87/EC, the National Plan of Distributing Emission Coupons for 2005-2007 was prepared. This document sets, on the basis of the data about annual emissions in the period 1999–2002, the number of emission coupons distributed by the state free of charge. One emission coupon represents a tonne of CO₂. For each current year, the companies, i.e., the operators of the facilities, have to register the number of 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 the coupons.

Slovenia decided to apply two different methods of distributing emission coupons to the industry sector and the thermal-energy sector. In the thermal-energy sector emission coupons are distributed on the basis of the forecasted emissions and in line with the Operational Programme for Reducing Greenhouse-Gas Emissions. In 2005 the thermal-energy sector received 6,488,128 emission coupons, which was more than two thirds of the emission coupons distributed in Slovenia.

In 2005 the average price for emission coupons on the EU market was above 18 euros per tonne of CO_2 . The total value of concluded deals amounted to over six billion euros. At the beginning of the year the price was seven euros per tonne, but over the year it increased to up to over 25 euros per tonne of CO_2 . Although the Slovenian market was, in 2005, part of the EU market for emission coupons, Slovenian companies were not active in this market.

3.3.1.4 RECS certificates

The system of issuing RECS certificates (Renewable Energy Certification System) has been operating in Slovenia since 2004. This system is a voluntary European organisation that, with a standardised system of certificates, allows trade in the value added for the environmental benefits of the electricity produced from renewable energy sources. In Slovenia RECS certificates are issued by the Energy Agency, which is a full member of the Association of Issuing Bodies (AIB) with its headquarters in Brussels. As an issuer, the Energy Agency issues, transfers and monitors the circulation of these certificates in Slovenia.

Between 1 January and 31 December 2005, RECS certificates for 167,396 MWh were issued in Slovenia. In this period, the certificates for 1,769,182 MWh were redeemed, the majority of which were issued in 2004. In 2005 the Energy Agency also prepared a receipt, i.e., a statement regarding the redeeming of the certificates, which the members of the RECS can ask for if they need one.



3.3.1.5 The degree of competitiveness of the production companies

The concentration rate in this area is an important indicator of the market structure. With concentration rate, we express the total market share of the largest companies in this area. It helps us to measure market dominance, or oligopoly, which is primarily affected by two factors: the number of companies in the market and their relative sizes. As concentration rate is a 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 of the production is very important. The concentration rate relating to a selected number of the largest companies is marked as CR_n.

Figure 21 shows three different indicators of concentration rate, i.e., the market share of the largest producer (CR_1), the market share of the two largest producers (CR_2), and the market share of the three largest market producers (CR_3) in Slovenia.



Cumulative shares of the one (CR₁), two (CR₂) and three (CR₃) largest producers in the market with respect to the total production (Source: Companies' data)

The HSE is the dominant company, as its market share significantly exceeds 40 percent (CR_1). With respect to the total production, the share of the three largest producers of electricity on the transmission network (CR_3) is 96.9 percent, which indicates a very tight oligopoly. The state is the majority owner of these companies.

The Hirshmann–Herfindahl index (HHI) that takes into account the total number of companies in the market, and their relative sizes, overcomes the shortcomings of the concentration-rate indicator. The companies with a smaller market share have a smaller weight factor. 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.

Article 10 of the Prevention of Restriction of Competition Act (the Official Gazette of the Republic of Slovenia, No. 99/04) prohibits the abuse of the dominant position of a provider in the market. According to this act, a provider has a dominant position, if its market share exceeds 40 percent. The HHIs listed in Tables 15 and 16 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.



		instancu	Slidle		on the trans.		
Producers	сар	acity (MW)	in the RS	HHI	network	HHI	Table 15
HSE		1,860	69.7 %	4,859	75.2%	5,661	U
NPSK		335	12.6%	158	13.6%	184	
TPST		164	6.1%	38	6.6%	44	
CHPSL		113	4.2%	18	4.6%	21	
Other small	producers						
(on the distr	ibution network)	196	7.3%	54	-	-	
Total		2,668	100%	5,127	-	-	
	espect to the ins	,	- ty	-	100%	5,909	Source:
		,	- ty Market share (100% NPSK)	нні	100% Market share (50% NPSK)	5,909 HHI	
HHI with re Producers	espect to the ins Production in GWh	stalled capacit Production in GWh	Market share	- ННІ 2,513	Market share		Companies' dat
HHI with re Producers	espect to the ins Production in GWh (100% NPSK)	stalled capacit Production in GWh (50% NPSK)	Market share (100% NPSK)		Market share (50% NPSK)	нні	Companies' dat
HHI with re	espect to the ins Production in GWh (100% NPSK) 6,642	stalled capacit Production in GWh (50% NPSK) 6,642	Market share (100% NPSK) 50.1%	2,513	Market share (50% NPSK) 63.6%	нні 4,045	Companies' dat
HHI with re Producers HSE NPSK	espect to the ins Production in GWh (100% NPSK) 6,642 5,613	stalled capacit Production in GWh (50% NPSK) 6,642 2,807	Market share (100% NPSK) 50.1% 42.4%	2,513 1,795	Market share (50% NPSK) 63.6% 26.9%	нні 4,045 722	Companies' dat

The HHIs exceed the limit of 1800, indicating dominant positions of the producers joined in the HSE with respect to electricity production and the provision of the majority of the ancillary services.



HHI relating to production companies (Source: Companies' data)

The majority of EU countries has similar, though slightly lower, indexes on the production market.



3.3.1.6 The provision of ancillary services

In 2005 the providers of the ancillary services of secondary control, voltage control and black start were companies with their production sources in Slovenia, while the services of tertiary control and covering the losses in the transmission network were also provided by companies from abroad. Larger customers did not independently participate in the tenders for the provision of the reserve required for tertiary control, as this reserve was included in the bids that were submitted by their suppliers and which included the reserve in the production facilities, as well as the option of a temporary reduction of the customers' consumption.

To lease the ancillary services for 2005, two types of procedure were used. One procedure was used for the ancillary services provided by domestic providers, the other type of procedure applied to the services provided by foreign providers.

The TSO ensured the ancillary services provided by domestic providers on the basis of the call for tenders, to which domestic providers sent their bids. This call for tenders referred to the provision of the reserve for secondary control, 60 percent of the reserve required for tertiary control, voltage control and the provision of a black start. On the basis of the demand and the received bids, the TSO made contracts with domestic providers regarding the provision of ancillary services.

Unlike domestic providers, foreign providers of ancillary services providing 40 percent of the reserve required for tertiary control (the total of 135 MW) were selected on the basis of an auction. The TSO invited the interested providers to submit their bids. In the first round, carried out on 19 November 2004, the TSO checked the competence of individual candidates for the provision of the ancillary service, while in the second round, carried out on 8 December 2004, Borzen, the energy-market operator, selected the most favourable bidder on behalf of the TSO. Table 17 shows the final results of purchasing the reserve power required for the provision of ancillary services in 2005.

Table 17		Selected bidder	Tertiary reserve (MW)	Secondary reserve (MW)
		HSE	169	67
		TPST	29	10
		CHPSL	8	3
		EFT (foreign bidder)	135	-
		Total	335	80
Source: Eles	-0	Review of the amounts of leased power		

In 2005 the total amount of positive secondary-control energy was 139.8 GWh, the amount of negative control energy was 12.1 GWh, and the amount of activated tertiary energy was 3.4 GWh. Positive secondary-control energy means an increase in the production of the facilities providing the reserve for secondary control, while negative control energy means a decrease in the production of these facilities.



3.3.1.7 Trading on the organised market

In 2005 there were 15 full members participating at the electricity exchange. At the annual level, their amount of traded energy was 39,025 MWh, which was about 0.3 percent of the total Slovenian electricity consumption. This means that the turnover on the daily market was lower than in 2004 by as much as 86.1 percent. In 2005 the trading of the participants was affected by the withdrawal of preferential dispatch, the withdrawal of distribution companies, the problems in the Slovenian electricity system that occurred in April, the beginning of the carrying out of explicit auctions, and a shortage of market supply during the winter season.

The trading was carried out in two ways, continuous trading and auction trading, and five standard products were traded – base load, shoulder load, night load, euro-shoulder load and euro-night load. At the auctions for cross-border transmission capacities, the participants traded with the rights for the use of available transmission capacities at the borders with Croatia, Austria and Italy. A total of 637 deals were concluded on the daily market, where the participants placed 4220 bids. Most of the electricity was sold for Wednesday, 12 January 2005, a total of 600 MWh.

2005 also saw wide variations in the traded amounts at the monthly level.



Movements of monthly amounts on the daily market, and the SLOeX (Source: Borzen)

As much as 99.7 percent of the consumed electricity was supplied in the framework of the public service of supply to tariff customers, and sold on the market on the basis of bilateral contracts made for a period of one to five years. No longer-term contracts are made in Slovenia.

A comparison of the amounts traded on the daily market by month in 2004 and 2005 shows that the amount was decreasing significantly for all months.





Monthly traded amounts and movements in the SLOeX index for 2004 and 2005 (Source: Borzen)

In 2005 most of the deals were made for the base load: 64 percent of the total traded amount. A large majority of these deals was made in the first half of the year. In the second half of the year, 64 percent of all the deals for the euro-shoulder load were made; at the annual level, this product had the second-largest share of trading. This shows an increasing integration of the Slovenian electricity system into the European system. In 2004, when the share of trading with the euro-shoulder load was still insignificant, more deals were made for the shoulder load (Figure 25).



Changes in the shares of standard products for 2005 in comparison with 2004 (Source: Borzen)



The share of the euro-shoulder load covered 23 percent of the total trading, while the shares of the other three products of the continuous trading were below 7 percent (Figure 26). In 2005 the auction trading with the products of hourly load was completely insolvent, as, due to the absence of the majority of the distribution companies in the market, there were no longer enough participants wanting to balance the daily load profile by trading with hourly load.

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Trading at Borzen by product (Source: Borzen)

In 2005 the prices for individual products on the daily market varied significantly, while the average prices exceeded the prices in 2004 for all months. In comparison with 2004, the average price on the market increased by as mush as 63 percent. In 2005 the average SLOeX index amounted to 11,485 index points, the annual average price for the base load was 9350 tolars/MWh, for the shoulder load it was 14,963 tolars/MWh, for the euro-shoulder load it was 14,963 tolars/MWh, for the euro-night load it was 6394 tolars/MWh, and the average annual price for the night load was 6592 tolars/MWh (Figure 27). The highest value of the SLOeX index, i.e., 36,000 index points, was recorded on 28 November 2005, and its lowest value, i.e., 3250 index points, was recorded on 2 January 2005.



Prices for standard products - a comparison between 2004 and 2005 (Source: Borzen)

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The coefficient between the electricity amount recorded in bilateral contracts, and the amount of electricity consumed in the Slovenian market is increasing from year to year, which shows a gradual development of the electricity market. In 2005 the coefficient was 3.86. The coefficient is coming close to the values typical of very developed European markets, where it is between 5 and 6. New participants are continually entering the market, and they are also involved in the reselling of energy, which points to the maturity of the bilateral market for electricity.

3.3.1.8 Degree of market integration with the neighbouring countries

The Slovenian electricity market is situated between three very different regional markets with very different energy prices. These are the market of Central and Eastern Europe (Germany, Austria, Poland, Czech Republic, Slovakia and Hungary), the Italian market, and the market of South-East Europe. In 2005 the market of South-East Europe still had surpluses of production capacities, and for this reason its electricity prices were relatively low. The conditions in the Italian market were completely different, as this market lacks thousands of MWs of production capacity. For this reason electricity is much more expensive in Italy than in the neighbouring markets. The market of Central and Eastern Europe has certain surpluses of production capacities (Poland and Czech Republic); its electricity is cheaper than in Italy and more expensive than in the markets of South-East Europe. A highly solvent German electricity exchange, known as the EEX, with its headquarters in Leipzig, which is also interesting for the Slovenian participants, operates in the market of Central and Eastern Europe.

In 2005 the Slovenian wholesale market included one large participant and a few smaller participants. Most of them also participated in the three neighbouring markets. They were buying the electricity required in Slovenia in the markets of South-East, and of Central and Eastern Europe, as well as exporting electricity to Italy in the framework of the restricted cross-border transmission capacities. The total exports from Slovenia amounted to 6741 GWh of electricity. This figure excludes the export of half of the electricity produced by the Nuclear Power Station, Krško, If this amount is also taken into account, then in 2005 Slovenia's exports amounted to 9548 GWh. In the same period Slovenian imports were 9326 GWh of electricity. The difference between the imported and exported amounts is the amount that Slovenian suppliers had to import to cover Slovenian demand – 2584 GWh, or a good 18 percent of Slovenia's consumption of electricity.

The average prices at the auctions for cross-border transmission capacities are shown in section 3.2.5. However, it should be remembered that only a small amount of the capacities used in 2005 was allocated



at the auctions. The participants obtained the right to use the transmission capacities mostly on the basis of the tender in 2004, when a non-market method of proportional reduction was applied to the allocation of capacities.

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 are no solvent electricity exchanges in the Italian or South-East European markets in which Slovenian traders could sell or buy electricity.

3.3.2 The supply and the retail market

The purchase and sale of electricity relating to end customers with the right to choose their supplier are carried out in the retail market. These were the non-household customers that were supplied with electricity by the providers of the public service of the supply to tariff customers in line with the tariff system. Thirteen suppliers of electricity were active in the retail market. On the basis of the contracts, these suppliers provided electricity to seven eligible customers connected to the transmission network, and to 97,018 eligible customers connected to the distribution network. It was also possible to buy electricity at the electricity exchanges, in Slovenia at Borzen, and at the foreign exchanges in the framework of the capacity or availability of the cross-border transmission paths. In 2005 the HSE had the largest market share of the supply to eligible customers; it was followed by Elektro Ljubljana and Elektro Maribor.

The companies supplied to their customers different electricity products. These products have been well established at the Slovenian exchange – the peak-period electricity (PP), the off-peak electricity (OP) and the monthly supply for a single charge (SC). To prepare the bids relating to concluding their supply contracts, the companies needed from a few hours to a few days. Most of the contracts for the supply to end customers were concluded by the suppliers organised within the distribution companies. The remaining companies trading in the organised market are also active in the wholesale market, and they are showing an increasing interest in the supply of electricity to end customers.

Distribution companies were supplying electricity that they had been buying in the bilateral market, while the other companies had also been buying electricity in the organised market.



Market shares of the electricity suppliers to eligible customers (Source: Companies' data)



In 2005 eligible customers were supplied with over 9300 GWh of electricity. In comparison with the previous year, the market share of the companies not operating within distribution companies, or the HSE, increased by about three percent.



Market shares of the suppliers to households and eligible customers with an annual consumption of up to 50 MWh (Source: Companies' data)

Market shares of the suppliers to eligible customers with an annual consumption of up to 50 MWh (Source: Companies' data)







The market shares of the suppliers not organised within the distribution companies increased. In 2005 six such companies were active. The main supplier is still the HSE, which is also a producer. Other suppliers have a very small production of their own, or do not have any at all. In their case the interaction with the producers is very small.

In 2005 a total of 4701 eligible customers changed supplier, which was less than five percent of all eligible customers. The number of changes was larger than the total number of changes in all the years since the beginning of the opening up of the market in Slovenia.



Numbers of supplier switches for 2002-2005 (Source: Companies' data)



Eligible customers decide to switch supplier mainly at the beginning of the year. As a result, more than half of the changes took place in the first quarter of 2005.



Dynamics of the supplier switches in 2005 with respect to the number of customers (Source: Companies' data)

With respect to all the electricity distributed over the distribution network, one percent of eligible customers decided to switch supplier.





Dynamics of the supplier switches in 2005 with respect to the amounts of electricity (Source: Companies' data)

An eligible customer can, at any time, switch supplier. If a customer has settled all the outstanding payments with the current supplier, the latter is obliged to issue an approval of the customer's switch to the new supplier. The customer then submits to the relevant network operator this approval, an open-ended contract with the new supplier, and a request for a switch of supplier. Even though an eligible customer settles all the outstanding payments and submits a completed request, the switch of supplier only comes into force one month after the end of the month in which the customer submitted the request for the supplier switch, which represents a time restriction on the process of switching supplier. The small number of suppliers in the domestic wholesale market additionally affects the dynamics of supplier switching.

3.3.2.1 Degree of competitiveness in the retail market

Table 18 shows the market shares of the suppliers to eligible customers on the distribution network. None of the companies in this market has a dominant position. In spite of a dispersed supply, the concentration is high, the HHI being 2002. With respect to ownership, the concentration is even higher, as the state is the majority owner of the Slovenian distribution companies.

Supplier	Supply to eligible customers (GWh)	Market share	нні	Table 18
Elektro Ljubljana, d. d.	2,217.6	33.9%	1,150	
Elektro Maribor, d. d.	1,220.2	18.7%	348	
Elektro Primorska, d. d.	885.6	13.5%	183	
Elektro Celje, d. d.	860.6	13.2%	173	
Elektro Gorenjska, d. d.	673.7	10.3%	106	
Holding slovenske elektrarne, d. o. o.	379.5	5.8%	34	
IG Prodaja električne energije, d. o. o.	133.6	2.0%	4	
Električni finančni tim, d. o. o.	92.1	1.4%	2	
Others	75.9	1.2%	1	
Total	6,538.7	100%	2,002	

Market shares of the suppliers to eligible customers on the distribution network

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Source: Companies' data



The total market for eligible customers includes, in addition to the eligible customers on the distribution network, also the large eligible customers connected to the transmission network. In this market the HHI reaches a value of 2117, showing a high concentration in the entire market.

Table 19	Supplier	Supply to eligible customers (GWh)	Market share	нні
	HSE	3,154.4	33.9%	1,147
	Elektro Ljubljana, d. d.	2,217.6	23.8%	567
	Elektro Maribor, d. d.	1,220.2	13.1%	172
	Elektro Primorska, d. d.	885.6	9.5%	90
	Elektro Celje, d. d.	860.6	9.2%	85
	Elektro Gorenjska, d. d.	673.7	7.2%	52
	IG Prodaja električne energije, d. o. o.	133.6	1.4%	2
	Električni finančni tim, d. o. o.	92.1	1.0%	1
	Others	75.9	0.8%	1
	Total	9,313.6	100%	2,117
Source:	Market shares of the suppliers to elic	tible customers		



Market shares of the suppliers to eligible customers

3.3.2.2 The prices of electricity

The final price of electricity consists of the price for electricity and the price for the use of electricity networks. The price of electricity for eligible customers was formed on the market, while the price of electricity for tariff customers was set by the government.

3.3.2.2.1 The prices of electricity for eligible customers

Eligible customers regulated the supply of electricity on the basis of contracts. The prices mainly depended on the forecasted consumption amounts and the time dynamics of the customers' consumption, relating to the load factor.

Below a comparison of electricity prices as of 1 July 2005 is presented. It refers to two typical customers selected in line with the Eurostat methodology. The comparison shows final prices, including the prices for the use of electricity networks. The price without VAT and other taxes for a typical industrial customer with an annual consumption of 50 MWh was 25.26 tolars/kWh, which is 96.5 percent of the weighted average price without VAT and other taxes in the EU¹ (Figure 36). The price for the typical industrial customer with an annual consumption of 24 GWh was 12.58 tolars/kWh, which is 87.8 percent of the weighted average price without VAT and other taxes in the EU (Figure 37).



Comparison of electricity prices for a typical industrial customer with an annual consumption of 50 MWh in Slovenia and in other EU countries for July 2005 (Source: SORS, Energy Agency)



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Movements of electricity prices, in tolars, for typical eligible customers in Slovenia (Source: SORS, Energy Agency)

3.3.2.2.2 The prices of electricity for tariff customers

As of 1 July 2004 the tariff customers are only those that use electricity for household purposes. In 2005 as well, the price of electricity was, for these customers, set on the basis of the Ordinance on the Tariff System for the Sales of Electricity (the Official Gazette of the Republic of Slovenia, No. 36/04) determining that the electricity price for these customers consists of:

- the use-of-network price;
- the price for electricity supply to customers;
- the price covering the supplier's costs regarding electricity supply;
- the excise duty or the tax on electricity;
- the value-added tax.

Setting the price for electricity supply and the price covering the supplier's costs is the responsibility of the government.

On 15 May 2005 the selling prices of electricity to tariff customers increased by 1.8 percent on the basis of the government's Decision Amending the Decision on Setting the Prices of Electricity Supply to Household Customers, and the Price Covering the Supplier's Costs Regarding Electricity Supply (the Official Gazette of the Republic of Slovenia, No. 38/05). This increase was based on the limited possibilities for increasing the regulated prices in the current year.



The comparison of retail prices for the households in the EU shows that on 1 July 2005 Slovenian prices for customers with an annual consumption of 3500 kWh amounted to 84.3 percent of the weighted average price in the EU (Figure 39).

3.3.2.3 The balancing

The imbalance amounts were established on a monthly basis; the financial accounts relating to the imbalances were also prepared every month. Balance groups then received, from the market operator, financial accounts that provided the basis for issuing the bills. Eles is responsible, in the framework of imbalance charging, for the financial settlement of imbalances, establishing the finality of the settlements, and providing notification about the matter.



In the framework of imbalance charging, the market operator calculates every day and publishes the hourly index C_{SLOPX} used in the equations for calculating the main imbalance prices, C_{+} in C. In 2005 the organisation of the balance groups and the balance subgroups was slightly changed in comparison with the previous year. One distribution company established its own balance group, while some other companies that used to be balance-responsible parties, dissolved their balance group and formed balance subgroups. In 2005 the following balance groups operated in the regulatory territory of the Republic of Slovenia:

	Balance groups	Balance subgroups 🕂 T	able 20
1	APT Power Trading SL, d. o. o.	Ŭ	
2	C & G, d. o. o.		
3	Electras, d. o. o.		
4	Električni finančni tim, d. o. o.	Elektro prodaja, d. o. o.	
5	Elektro Maribor, d. d.		
5	Atel Energija, d. o. o.		
7	Ezpada energija, d. o. o.		
3	Holding Slovenske elektrarne, d. o. o.	Elektro Celje, d. d.	
		Elektro Gorenjska, d. d.	
		Elektro Ljubljana, d. d.	
		Elektro Primorska, d. d.	
		Thermoelectric Power Station, Trbovlje, d. o. o.	
)	Istrabenz-Gorenje, d. o. o.	IG Prodaja električne energije, d. o. o.	
		Combined Heat-and-Power Station, Ljubljana, d. o. o.	
10	Korlea, d. o. o.		
Balance	groups	O	ource: Borz

Balance groups

The market operator establishes the imbalances of the balance groups and subgroups by calculating the difference between the total realisation of a balance group or subgroup and the final operation schedule of the same balance group or subgroup. The imbalances are established for each accounting interval, and the obtained values represent the amount accounts for each balance group or subgroup. The accounting interval for the imbalance calculation is one hour. The market operator sends the amount accounts to the participants by the 18th working day in the month.

3.3.2.3.1 An analysis of accounting for imbalances

In 2005 the HSE also had the largest influence on the imbalances, because it covers 95 percent of Slovenian production, excluding only small independent and qualified producers and the Combined Heat-and-Power Station, Ljubljana, which is a member of the IBG balance group. The year 2005 also saw some changes regarding the supply of electricity to eligible customers. As a result of establishing new balance groups, and a switch of some eligible customers from the HSE balance group to other balance groups, their imbalances were divided among other balance groups, and the share of customers in the HSE balance group became smaller. In addition to the HSE, the Elektro Maribor balance group caused most of the imbalances in the Slovenian electricity system.



Table 21 shows monthly imbalance amounts by balance group. It lists percentage values that indicate the percentage of hours in which the balance groups exceeded the tolerance with their imbalances. In comparison with 2004, the number of hours during which the balance groups exceeded the tolerance increased. The HSE balance group had the lowest percentage of hours during which the tolerance was exceeded, 6.4 percent; it is followed by the IBG balance group, with 16 percent, and the Elektro Maribor balance group, with 27.5 percent. On the other hand, the EFT balance group had the largest percent of the hours during which the tolerance was exceeded, as much as 50.4 percent.

	Ele	ktro Mar	ibor		EFT			IBG			HSE	
Table 21	W+	W -	outside T	W+	W -	outside T	W+	W-	outside T	W+	W-	outside T
January	1,511.98	-3,022.24	17.47%	93.32	-669.97	64.92%	577.44	-165.17	64.52%	0.58	-8,968.92	7.12%
February	3,245.83	-1,508.18	20.98%	147.22	-494.90	49.85%	734.49	-142.81	4.32%	0.73	-10.15	0.00%
March	2,609.05	-2,679.42	24.33%	87.13	-910.37	59.54%	203.03	-197.85	1.21%	0.20	-11.74	0.13%
April	413.39	-8,272.60	59.17%	24.97	-1,369.88	71.25%	105.11	-523.24	7.22%	0.11	-8,950.92	5.28%
May	2,637.28	-1,443.08	18.15%	140.54	-731.73	44.35%	168.12	-398.89	14.78%	0.17	-12,332.86	7.66%
June	2,606.99	-1,348.97	16.81%	53.93	-1,086.45	53.06%	331.07	-191.19	13.61%	0.33	-10,617.83	6.39%
July	5,101.35	-933.00	29.70%	133.19	-502.12	39.65%	618.25	-151.31	11.69%	0.62	-15,185.64	7.66%
August	2,724.33	-2,514.41	24.19%	211.29	-475.53	35.08%	441.27	-578.07	49.33%	0.44	-9,308.92	6.99%
September	2,665.17	-1,615.98	15.42%	153.33	-458.32	36.25%	566.06	-221.16	8.89%	0.57	-10,045.61	7.22%
October	4,031.03	-917.74	18.41%	236.17	-498.71	41.67%	568.21	-365.91	8.74%	0.57	-9,837.79	7.39%
November	8,428.89	-264.53	50.56%	466.69	-344.40	51.67%	301.70	-217.40	0.28%	0.30	-11,711.46	10.42%
December	4,909.80	-2,711.45	34.95%	736.38	-444.17	56.99%	840.26	-138.89	7.26%	0.84	-11,967.42	10.08%
Average			27.51%			50.36%			15.99%			6.36 %

Source: Borzen

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Monthly imbalance amounts of the balance groups and their imbalances outside the tolerance



In 2005 the main imbalance prices, C₊ in C₋, were continually on the increase, and were, from May onwards, higher than the C_{SLOeX} index. The market operator's analysis showed that the main imbalance prices were, on average, higher than the C_{SLOeX} index by 34.9 percent (C₊) and 20.4 percent (C₋). The growth of the main imbalance prices, as compared with the C_{SLOeX} index, was affected by three important factors:

- a decrease in the trading at the exchange followed by a stagnation of the C_{SLOEX} index;
- an increased influence of the electricity price formed at the German exchange on the TSO's costs of balancing, resulting in increased electricity prices that affected the growth of the main imbalance prices;
- the definition of the equation for calculating the main imbalance price for negative imbalances (C-) allows the C- prices to be higher than the C_{SLOeX} .

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

3.3.3.1 The findings and measures of the Competition Protection Office

In 2005 the Competition Protection Office did not receive any request for an assessment of the restrictions, an abuse of a dominant position or a concentration of the companies in the electricity market. Neither did the office take additional measures for ensuring a sufficient number of market participants, or for promoting the cross-border exchange, and fair and free competition. The office did not carry out any procedure regarding an offence relating to the electricity market within its responsibility.

3.3.3.2 The findings and measures of the responsible ministry

In 2005 the Ministry of the Economy noticed a few cases of discriminatory behaviour of the distribution companies. These companies had not yet unbundled their services, carrying out, within the same legal entity, the activity of the distribution system operator (DSO) and the supply to eligible customers.

Discriminatory behaviour was noticed within the provision of the public service of the DSO, more precisely, in the case of providing the data required for the operation of the suppliers, mainly relating to the balance accounts. Distribution companies did not encounter such problems; however, the ministry received several complaints from a supplier that organisationally is not associated with the electricity-distribution companies.

In addition, a lack of regulations was also noticed in the above-mentioned area. The existing regulations allow different interpretations regarding the obligation of the DSO to provide the information required by the suppliers.

With respect to the above-mentioned findings, the ministry proposed a few corrections to the proposed amendments to the EA. These corrections will allow a clearer interpretation of the DSO's obligations regarding the provision of the data required by the suppliers and other market participants.

The ministry received ten complaints from Elektro prodaja, d. o. o., to be dealt with at the second instance. Most of these complaints referred to the operation of a DSO, while two complaints also referred to the activities of the market operator. The complaints mainly referred to the data that a supplier requires for:

- preparing the bids;
- charging for the supplied energy;
- checking the imbalance bills;
- the data required for making the payments for the network charge under the authorisation of a customer.



Some complaints were refused for procedural reasons, other cases were resolved in favour of the plaintiffs and returned to the Energy Agency for a review of the decision. The ministry believes that the existing legislation obliges the DSO to provide all the above-mentioned data to the customers and suppliers free of charge.

To allow competition in the wholesale electricity market, the Government of the Republic of Slovenia transferred, at the beginning of 2006, ELES GEN, d. o. o., the owner of half of the Nuclear Power Station, Krško, to its direct ownership. At the same time, ELES GEN, d. o. o., started to participate in the wholesale market as an independent participant. The purpose of these activities is to allow more competition in the wholesale electricity market in Slovenia. The entire process of establishing ELES GEN, d. o. o., as an independent participant has not yet been completed, though it started in 2005.

There are no special restrictions or requirements regarding the structure of electricity-supply contracts in the market. The legislation requires that the procedure of switching supplier is free of charge.

3.3.4 The internal electricity market in the EU

The opening of the market in the EU led to an improved effectiveness of public companies in the area of electricity, though the relevant European legislation is not yet being consistently implemented. Most of the customers changed their suppliers within their respective Member States, as the expansion of the suppliers from abroad is minimal. The reasons for this can be found in a poor integration of the markets and the restrictions to the cross-border transmission capacities. An example of a successful integration is the Scandinavian area (Nordpool). In most of the countries, foreign suppliers have a very small market share.

Additional obstacles are unsuitable market structures, within which one or two companies dominate the markets, and an insufficient unbundling of the system operators from the suppliers. One of the indicators of the competition within individual countries is the total share of the three largest producers. Scandinavian countries and Great Britain have very favourable market structures. The main characteristic of these markets is the fact that the total share of the three largest producers amounts to less than 50 percent.

In the EU there is an increasing trend of linking the production and the supply. To overcome the said problems, the countries should improve the transparency of the market operation and the concentration in the markets.

Another good indicator of the market operation is the number of customers that have switched supplier. However, there are a lot of customers that made use of the market liberalisation to improve their position in negotiations with their current suppliers, but then did not switch supplier.

Table 22	Country	Share of the switches
	Denmark, Finland, Ireland, Sweden, Great Britain, Norway, Italy	more than 50 percent
	Austria, France, Germany, Belgium, Luxembourg, Hungary	from 20 to 50 percent
	Estonia, Lithuania, Poland, Portugal, Czech Republic, Slovenia	from 5 to 20 percent
	Greece, Estonia, Latvia, Slovakia	less than 5 percent
Course, European	Chara of supplier switches of large industrial systematic	

Source: European Commission

Share of supplier switches of large industrial customers

In 2005 the price for electricity increased significantly in the European market. In the long-term market of the European exchange EEX, the price for base load ranged between 35 and 45 euros/MWh, and the price for shoulder load ranged between 45 and 73 euros/MWh.





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Movements of the prices for the products in 2005 in the long-term market for the base load and shoulder load available in 2006 (Source: German exchange EEX)

In spite of the growth of electricity prices at the exchanges, these prices actually decreased in the last ten years in comparison with the other energy sources (oil, gas).

The unbundling of the system operators from the profit-making activities is being carried out slowly. In most countries the national legislation relating to service unbundling does not include more than just the minimum requirements of the relevant EU directives.

All the Member States have a regulator (some even have regional regulators), whose responsibilities and powers vary from country to country. The regulators harmonize their activities and exchange experiences within the Council of European Energy Regulators (CEER), and the European Regulators Group for Electricity and Gas (ERGEG).

The Directive Concerning the Common Rules for the Internal Market in Electricity is being implemented with a delay; it determines the minimum range of measures that the Member States have to adopt. For the purpose of the actual opening of the markets, additional measures need to be taken in some areas. Thus, the unbundling of services and the construction of additional cross-border capacities should be speeded up, and the power and independence of the regulators should be strengthened.

In addition to the measures for the opening of the markets, the EU takes additional measures regarding energyrelated effectiveness and the promotion of the use of renewable energy sources. In 2005 the EU saw the beginning of emissions trading, which is an additional contribution towards the use of non-fossil energy sources.

However, in spite of the slow implementation of certain measures, the development of a competitive market is in progress.

3.3.5 Deciding on disputes and complaints

In 2005 the Energy Agency received 22 requests to decide, in an administrative procedure at the first instance, on disputes between the network users and the system operators or market operator. It decided finally on 16 requests, and referred one to the responsible body. Most of the requests for deciding on disputes and complaints related to the issues arising from alleged breaches of general supply conditions and third-party access.

The Energy Agency also decides, in an administrative procedure, on appeals against the decisions of the system operator relating to a connection approval, which means that, in these cases, the Energy Agency operates as an administrative body at the second instance. In 2005 two such proceedings were conducted and resolved finally at the end of the year. In comparison with 2004, when 13 requests for making a decision in an administrative procedure were submitted to the Energy Agency, the work of the Energy Agency almost doubled in 2005.



4.1 GENERAL INFORMATION

In 2005 Slovenia continued with preparations to fully open the market for natural gas. Already in 2004 all customers of natural gas, except for households, became eligible customers. In 2005 there were 9354 eligible customers, which was 8.4 percent of all customers. They consumed 1,016,442 thousand Sm³ of natural gas, or 92.7 percent of all the consumption of natural gas in Slovenia, which was 1,096,489 thousand Sm³. The market for natural gas will be fully open on 1 July 2007, when households will also become eligible customers.



Number of eligible customers and household customers of natural gas and their consumption (Source: Companies' data)

In 2005 the Energy Agency adopted four acts determining the methodologies regarding natural-gas distribution relating to the calculation and setting of the network charge, the setting of general conditions for supply and consumption, and the tariff systems. On the basis of these acts, the DSOs and suppliers to tariff customers have to issue their own acts allowing, in this way, the transparency of the natural-gas market, and the switching of suppliers.

At the beginning of 2005, Geoplin plinovodi, d. o. o., the provider of the public service of operating the gas transmission system, started to operate as a separate legal entity. Prior to this change, this service was provided by Geoplin, d. o. o., which was also the largest supplier of and trader with natural gas in Slovenia.

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4.2 REGULATION AND REGULATED ACTIVITIES

4.2.1 Regulation of the transmission and distribution activities

4.2.1.1 General information

In 2005 the following public services operating as regulated activities were involved in the supply with natural gas:

Service Provider	Form	Service	Table 23
Geoplin plinovodi, d. o. o	national mandatory public service	operation of the natural-gas transmission system	
Adriaplin, d. o. o Domplan, d. d Energetika Celje, d. o. o Energetika Ljubljana, d. o. o Javno podjetje plinovod Sevnica, d. o. o Istrabenz plini, d. o. o JEKO-IN, d. o. o Javno komunalno podjetje Slovenj Gradec, d. o. o Komunalno podjetje Velenje, d. o. o Komunalno podjetje Vrhnika, d. d Loška komunala, d. d Mestni plinovodi, d. o. o Petrol Energetika, d. o. o Petrol Plin, d. o. o Plinarna Maribor, d. d Plinstal, d. d	optional local public service	operation of the natural-gas distribution system	
Adriaplin, d. o. o Domplan, d. d Energetika Celje, d. o. o Energetika Ljubljana, d. o. o Javno podjetje plinovod Sevnica, d. o. o Istrabenz plini, d. o. o JEKO-IN, d. o. o Javno komunalno podjetje Slovenj Gradec, d. o. o Komunalno podjetje Velenje, d. o. o Komunalno podjetje Vrhnika, d. d Loška komunala, d. d Mestni plinovodi, d. o. o Petrol Energetika, d. o. o Petrol, d. d Petrol Plin, d. o. o Plinarna Maribor, d. d Plinstal, d. d	optional local public service	supply of natural gas to tariff customers	

Regulated services in the area of natural gas in 2005

Mandatory and optional public services are carried out on the basis of the provisions of the EA and the Public Services Act (The Official Gazette of the Republic of Slovenia, No. 32/93). The public services provide material amenities, which are supplied, in the public interest, by the state or local communities for the purpose of meeting public demands whenever these cannot be guaranteed by the market. If full competition cannot be guaranteed in the market, economic regulation that guides and controls the operation of the companies has to be introduced. The purpose of economic regulation is to guide and control the operation of regulated companies, i.e., regulated services. The funding source for the supply of natural gas is the network charge that was, in 2005, in the case of tariff customers, still included in the final price for the supply with natural gas, i.e., it was not set and accounted for separately.

The companies for gas distribution have to maintain separate accounts for each energy-related activity, so that the final gas price for customers can be accounted for in a transparent and non-discriminatory way.

In 2005 in 47 local communities the services of operating the gas distribution system and the supply of natural gas to tariff customers were put in place with the concession contracts between the concessionaries and local communities. Thirteen local communities had public companies responsible for providing these services, while in two local communities the public services were carried out in a different way.

4.2.1.2 The transmission of natural gas

In 2005 Geoplin plinovodi, d. o. o., carried out the activities of the gas transmission system operator in Slovenia. On 1 January 2005 this company began to carry out this regulated service as an independent legal entity.

4.2.1.2.1 The transmission system operator

On the basis of the contract on the takeover of new assets that Geoplin, d. o. o., concluded with Geoplin plinovodi, d. o. o, in January 2005, Geoplin, d. o. o., transferred the ownership of the entire energy-related infrastructure, as well as all the rights and obligations arising from this infrastructure to the gas transmission system operator.

In 2005 the public service of operating the gas transmission system was financed from the network charge set by the system operator on the basis of the Act Determining the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, No. 131/04), and the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, Nos. 131/04, 132/04).



4.2.1.2.2 The tasks of the transmission system operator

The transmission system operator carries out the tasks related to a reliable transmission of natural gas across the high-pressure and medium-pressure gas networks in Slovenia. These tasks include:

- the transmission of natural gas;
- the operation, maintenance and development of the network;
- the provision of long-term network capacity;
- the provision of appropriate capacity and reliability of the network;
- the provision of ancillary services;
- the establishing and charging for imbalances;
- the recording of all the concluded contracts for the supply with natural gas;
- a non-discriminatory treatment of the network users;
- the provision of the required data to the other system operators whose networks are connected with the respective network operated by the respective operator;
- the provision of the required data to the eligible customers, so that they can effectively implement their right to access the network;
- the implementation and control of the mechanisms for managing the flows and their balancing on the network;
- the forecasting of the gas consumption and necessary sources by applying the method of integrated least-cost planning.

In addition, the system operator also carries out the tasks arising from the provisions of the Ordinance Relating to the Operating Mode of the Public Service of the System Operator of the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, Nos. 97/04 and 8/05), the System Operation Instructions for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, No. 89/05) and the General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network (the Official Gazette of the Republic of Slovenia, No. 89/05).

4.2.1.2.3 The gas transmission network

The gas transmission network runs from the border metering-regulation stations, at which natural gas is taken from the neighbouring transmission networks, to the exit points, at which natural gas is delivered to the end customers, or to a distribution network for further distribution. The transmission network is connected with the gas transmission networks of Austria (the Ceršak MRS), Italy (the Šempeter MRS) and Croatia (the Rogatec MRS).

In 2005 the transmission system consisted of 740 kilometres of pipelines with a nominal pressure of more than 16 bar, 219 kilometres of pipelines with a nominal pressure of less than 16 bar, 173 metering-regulation stations, 41 metering stations and a compressor station in Kidričevo, which maintains the required pressure in the network and allows the system to adapt to the current requirements.

Across the transmission network, 1125 million Sm³ of natural gas were transported to the customers in Slovenia. The construction of the Slovenian transmission system began more than three decades ago, and 75 percent of it has been depreciated. As the transmission system operator has to provide an uninterrupted transmission of natural gas across the transmission system, several regular and planned maintenance works were carried out in 2005. The average time for the repair work on the gas transmission network was five days. The year 2005 also saw one unexpected interruption of the supply, which lasted for an hour and a half.




4.2.1.2.4 The business operation of the transmission system operator

In 2005 the transmission system operator for the first time operated as an independent legal entity. The revenues of the system operator include the network charge for the gas transmission network, and other revenues related to the provision of its service. In 2005 the system operator made a net profit of 2123 million tolars. At the end of the year the company had 143 employees.

4.2.1.2.5 The ownership of the transmission system operator

One hundred percent of Geoplin plinovodi, d. o. o., is owned by Geoplin, d. o. o., which is a supplier of natural gas. The majority owner of Geoplin, d. o. o., is the Republic of Slovenia, which holds a good 31 percent of the share capital of the company. The second largest owner is Petrol, d. d., holding almost 28 percent of the capital.

4.2.1.2.6 The investments in the transmission network

The investments in the gas transmission network are carried out on the basis of the long-term development plan prepared by Geoplin plinovodi, d. o. o., which applies to the period 2005–2014. This plan was harmonized with the Resolution on the National Energy Programme.

The investments in the transmission network will double transmission capacities and will aim at meeting the new requirements relating to the transmission of natural gas for the planned thermoelectric facilities (TPS Šoštanj, TPS Trbovlje, Combined Heat-and-Power Station, Ljubljana), for broad consumption and industry.

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Additional transmission capacities are planned for the gas pipelines that will run from Ceršak through Kidričevo, Rogatec, Rogaška Slatina to Vodice and Ljubljana, as well as from Ajdovščina to Piran. The total length of all the planned new transmission pipelines is 450 kilometres. In addition, the construction of two compressor stations is planned.

In 2005 the transmission system operator allocated 1661 million tolars for the expansion and renewal of the network. By the end of the year the investments in the metering-regulation stations of Zalog, Kozarje and Steklarna Podkraj were realised. In line with the development plan of the transmission system operator, the investments for 2005–2010 are expected to amount to 86 billion tolars.

The investments in the new gas-production sources have not been planned; however, investigations of the technical and economic possibilities for constructing a gas-storage facility are in progress. No direct incentives were provided for the construction of new transmission paths for importing and storing natural gas.



Planned expansion of the transmission capacity of the gas network for 2005-2014 (Source: Geoplin plinovodi, d. o. o.)

4.2.1.3 The distribution of natural gas

4.2.1.3.1 The distribution system operators

With respect to natural-gas distribution, the operation of a gas distribution network and the supply of natural gas to tariff customers are regulated services. As a rule, these activities are organised within a public company established by a local community, or they are regulated with a concession act between the concessionaire and the local community as the awarding authority. In 2005 there were 17 distribution companies carrying out



these services in 62 local communities in Slovenia. In 47 local communities these services were regulated with a concession contract between the concessionaire and the local community, in 13 local communities these services were provided by public companies, and in two local communities these services were carried out in a different way.

Company F	orm of organisation	Municipalities, in which the respective activities are carried out	Table 24
Adriaplin, d. o. o.	Concession	Ajdovščina, Bled, Brežice, Ptuj, Laško, Logatec, Kamnik, Krško, Nova Gorica, Radeče, Rogaška Slatina, Šempeter - Vrtojba, Šentjur,	Ŭ
		Štore, Vipava, Vojnik, Zagorje	
Domplan, d. d.	Concession, contract	Kranj, Naklo	
Energetika Celje, d. o. o.	Public company	Celje	
Energetika Ljubljana, d. o. o.	Public company	Brezovica, Dobrova - Polhov Gradec, Dol pri Ljubljani, Ig, Mestna občina Ljubljana, Medvode, Škofljica	
Javno podjetje plinovod Sevnica, d.	o. o. Public company	Sevnica	
Istrabenz plini, d. o. o.	Concession	Novo mesto	
IEKO-IN, d. o. o.	Public company	Jesenice	
Javno komunalno podjetje Slovenj Gradec, d. o. o.	Public company	Slovenj Gradec	
Komunalno podjetje Velenje, d. o. o	. Public company	Velenje	
Komunalno podjetje Vrhnika, d. d.	Public company	Vrhnika	
Loška komunala, d. d.	Concession	Škofja Loka	
Mestni plinovodi, d. o. o.	Concession	Ormož, Lendava, Ljutomer, Murska Sobota, Polzela, Prebold, Radenci, Zreče, Žalec, Hrastnik	
Petrol Energetika, d. o. o.	Concession ,	Prevalje, Mežica, Ravne na Koroškem	
investment	ts of public capital in the		
activities of	f the private-law entities		
Petrol, d. d.	Concession	Domžale, Trzin, Mengeš	
Petrol Plin, d. o. o.	Concession	Beltinci, Odranci, Radovljica, Rogatec, Sežana, Turnišče, Tržič, Vodice	
Plinarna Maribor, d. d.	Concession	Hoče - Slivnica, Maribor, Ruše	
Plinstal, d. d.	Concession	Žirovnica	

Provision of the regulated services of operating a distribution network and supplying gas to tariff customers

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With respect to the public services in the area of gas distribution carried out by the companies supplying gas to fewer than 100,000 customers, the legal unbundling of services is not required, as only the unbundling of accounts is sufficient. This means that the distribution companies have to manage separate accounts for each energy-related activity allowing, in this way, a transparent setting of the final price for natural gas.



The distribution system operators provide the optional public service of operating a distribution network for a local community. They carry out the following tasks:

- the distribution of natural gas;
- the operation, maintenance and development of the network;
- the provision of long-term network capacity, which allows reasonable requests for connecting to and accessing the network;
- the provision of conditions for a reliable supply with natural gas by providing the appropriate capacity and reliability of a network;
- an non-discriminatory treatment of the network users;
- the provision of the required data to the other system operators whose networks are connected with the respective network operated by the respective operator;
- the provision of the required data to the eligible customers, so that they can effectively implement their right to access the network;
- the forecasting of the gas consumption by applying the method of integrated least-cost planning, considering economy measures on the customers' side.

The gas distribution networks are in 62 local communities; they are set up well in large towns and settlements along the gas transmission network. Figure 45 shows the gas transmission network and the areas of the local communities in which the distribution system operators are active.

Areas of gas distribution in the local communities in Slovenia (Source: Energy Agency)



The distribution networks include 2582 kilometres of gas-distribution pipelines with different pressure levels. The longest networks are operated by Energetika Ljubljana, d. o. o., Adriaplin, d. o. o., and Mestni plinovodi, d. o. o. In comparison with 2004, the distribution networks were extended by 206 kilometres.

ength of the network with a pressure level between 4 and 16 bar	26 km
ength of the network with a pressure level between 100 mbar and 4 bar	1,170 km
ength of the network with a pressure level of up to 100 mbar	1,387 km
umber of metering stations	88
lumber of metering-regulation stations	797

The distribution system operators guarantee a reliable and safe functioning of the network; their tasks also include regular and unexpected maintenance work. With respect to regular maintenance, the repair work on a network was, on average, completed in one day, only in some cases did it take several days. The longest time needed for the repair work on a network was seven days after the error had been established. There were also unexpected interruptions requiring exceptional and unexpected activities. According to the companies' data, there were 12 unexpected supply interruptions in 2005, whose total duration was 61 hours.

4.2.1.3.2 The customers connected to the distribution networks

In 2005 a total of 111,757 customers were connected to the distribution networks; they were supplied under the conditions of the tariff systems of the gas distribution companies. The regulation of the price for natural gas was the responsibility of individual local communities that set the prices on the basis of contractual provisions or another arrangement between a local community and a distribution company. Only certain industrial customers, which affect the network with their specific characteristics, agreed the price for natural gas with the distribution company, while all the other industrial customers had, in spite of their status of eligible customer, their prices set on the basis of a tariff system.

Most of the customers on the distribution networks – 107,749 or 96 percent – have an annual consumption of up to 4500 Sm³ of gas. They use it for cooking, preparing hot water and heating. However, these customers consume only 35 percent of the total consumption of the customers connected to a distribution network.

The procedure for connecting customers to a network includes the following:

- 1. obtaining a connection approval;
- 2. issuing the project requirements;
- 3. obtaining consent for the building permit;
- 4. physically connecting to the network.

A distribution system operator has to issue an approval in 30 days, which is the duration of the administrative procedure. A physical connection to a network includes testing the fittings and installing a meter, and this takes between one and seven days.

The distribution system operators issued about 1400 connection approvals more than the number of new customers in 2005; a total of 6016 new customers were connected to the networks. Most of the new customers were connected to the networks of Energetika Ljubljana, Adriaplin and Mestni plinovodi that also constructed most of the new distribution networks in 2005.



4.2.1.3.3 The business operations of the distribution system operators

In 2005 the final natural-gas price for the customers connected to the distribution networks was not yet divided into its regulated and market-based fractions; however, the companies did manage separate accounts for individual energy-related activities. Nine distribution system operators had a net profit, while eight of them had a loss. The financial results of the system operators depend on operational conditions, the characteristics of their networks and customers, the age of the networks, and the business policy of the companies.

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

The diversity of the gas distribution system operators is also noticeable with respect to the ownership structure of these companies. Most of the distribution companies are owned by domestic legal entities.

Table 26	Ownership	Number of companies
	Majority ownership of one or more municipalities	6
	Majority ownership of a domestic legal entity	7
	Majority ownership of a foreign legal entity	2
	Majority ownership of an individual	1
	No majority owners	1
Source: Energy Agency	Ownership structure of the companies for gas distribution	

In most cases the ownership of distribution companies affects the ownership of the networks. As a rule, a network operated by a concessionaire is owned by the concessionaire.

4.2.1.3.5 Investments in the distribution networks

The gas distribution system operators provide for the reliable operation and transport of natural gas across the distribution systems, and, in this way, guarantee a reliable supply to the customers. The programme of investments is, in most cases, harmonized 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. In 2005 a lot of distribution networks were still under construction. It is typical of such networks that not all of the potential customers can be connected to them at the same time, as making the connections is carried out gradually. There are still a lot of areas in Slovenia where gas is not used, and for this reason we can expect a further development of the distribution networks, though only in the areas where a network construction will be economically justified.

In 2005 a total of 206 kilometres of the new gas pipelines of the distribution networks were constructed. The total investments in the distribution networks amounted to 2299 million tolars.

4.2.1.4 The network charges for the gas transmission and gas distribution networks

The price for the use of networks consists of the network charge and the supplement, and it is used for financing the system operators and covering other costs. The network charges for the transmission and distribution networks are set by the system operators after obtaining an approval from the Energy Agency, while the supplement used for the operation of the Energy Agency is set by the Government of the Republic of Slovenia.

4.2.1.4.1 The network charge for the gas transmission network

In 2005 the network charge for the gas transmission network was set by the gas transmission system operator with the Act Setting the Network Charge for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, No. 139/04). The foundations for setting the network charge were provided by the Act Determining the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, No. 131/04) and the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, No. 131/04) and the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, No. 131/04) and the Act Determining the Methodology for Slovenia, Nos. 131/04, 132/04).

The network charge for the gas transmission network has been set with the basic price for the transmission of gas across the transmission network, which, in 2005, amounted to $1034.38 \text{ tolars}/((Sm^3/day)/year)$.

The network charge for the transmission network consisted of the following elements:

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

The prices for the transmission of natural gas across the transmission network were different depending on the amounts of annually leased capacities of individual customers:

Р _{тсі}	P _{TC1}	Ртс2	Ртсз	Ртс4	Ртс5	Ртс6	Ртст	Ρτς8
Annually leased	from 0	from 5,000	from 10,000	from 25,000	from 50,000	from 100,000	more than	Distribution
capacities	to 4,999	to 9,999	to 24,999	to 49,999	to 99,999	to 199,999	200,000	
	(Sm³/day)	(Sm³/day)	(Sm³/day)	(Sm³/day)	(Sm³/day)	(Sm³/day)	(Sm³/day)	
Price for the transmission (tolars/(Sm ³ /day/year))	1,551.57	1,300.22	1,137.82	1,086.10	1,013.69	982.66	951.63	982.66
Price for the transmissi	on of natura	l gas across	the transm	ission netwo	ork Source:	Energy Agency	Tab	le 27

The two methodologies 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 was used when setting the network charge. The first regulatory period took one year – 2005.

When determining eligible costs, operational costs, costs relating to the losses of natural gas in the network, amortisation costs, and the return on assets of the system operator are considered. If the Energy Agency finds that the operational cost-effectiveness of the system operator is lower than the cost-effectiveness of other comparable system operators, the Energy Agency demands an improvement in the cost-effectiveness for the following regulatory period and defines the expected level of the improvement.

The two methodologies for charging for the network charge define the mode of charging for the network charges for the transmission or distribution of natural gas, the mode of charging for the imbalance amounts, and for the provision of specialised ancillary services to the network users. The postage-stamp method is used for charging for the network charge for the transmission and distribution networks.

In 2005 the network charge for the transmission network was, for individual customer groups, unified for the whole territory of Slovenia. It depended on the leased contractual transmission capacity, the transported amount of natural gas and the type of metering device used.

able 28	Typical industrial customers	Annual gas consumption in thousands of Sm ³	Customer's load factor	Use-of-network price
	I ₂	111	200 days	9.35 tolars/Sm ³
	I ₃₋₁	1,107	200 days 1,600 hours	6.97 tolars/Sm ³
	I ₃₋₂	1,107	250 days 4,000 hours	6.70 tolars/Sm ³
	1	11,065	250 days 4,000 hours	4.68 tolars/Sm ³
	I ₄₋₁			

Energy Agency

of the gas transmission network for typical industrial customers in 2005

4.2.1.4.2 The network charges for the gas distribution networks

The distribution system operators set the network charges for the gas distribution networks on the basis of the methodologies prepared by the Energy Agency, and adopted in the autumn of 2005. These methodologies are included in:

- the Act Determining the Methodology for Setting the Network Charge and the Criteria for Establishing Eligible Costs for the Gas Distribution Network (the Official Gazette of the Republic of Slovenia, Nos. 87/05 and 102/05).
- the Act Determining the Methodology for Charging for the Network Charge for the Gas Distribution Network (the Official Gazette of the Republic of Slovenia, Nos. 87/05 and 102/05).

In 2005 the network charges for the distribution networks were not yet set. These methodologies determine the structure of the network charge, which consists of the following tariff elements:

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

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

The distribution system operators set the network charges for the gas distribution networks on the basis of the methodologies, and the Energy Agency gives approval to them. A system operator has to submit technical data relating to the provision of the transmission or distribution of natural gas, economic data about individual costs and revenues, and an assessment of the financial influence of the network charge on the network users. A network charge is a source of financing the tasks of a system operator, and for this reason the Energy Agency also reviews the quality of a system operator's services before giving approval to a proposed network charge.

In line with the methodology, the network charges for the distribution networks are unified for individual restricted geographic 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 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.

4.2.1.5 The balancing

The transmission system operator manages the imbalances that can directly affect the operational reliability of the transmission network. In 2005 the establishing and charging for the imbalances were carried out in line with the Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, Nos. 131/04 and 132/04).

The transmission system operator carries out the balancing of the allowed daily imbalance amounts as an ancillary service, and the balancing of the unallowed imbalance amounts as a specialised ancillary service. In the framework of ancillary services, the balancing of hourly and daily imbalance amounts is carried out. With respect to the tolerance, the imbalances are divided into the allowed and unallowed imbalances. The tolerance for the allowed daily imbalance amounts is two percent, positive or negative, of the total contractual transmission capacities of a network user. The tolerance for the allowed cumulative monthly imbalances is 10 percent, positive or negative, of the total contractual transmission capacities of a network user.

In the framework of specialised ancillary services, the transmission system operator carries out the balancing of the overrun of contractual transmission capacities on a daily or monthly basis, and of the unallowed imbalance amounts that the system operator charges the network users for separately.

For the purpose of balancing, in 2005 the transmission system operator used to purchase natural gas at the regulated price P_b (Figure 46).



Movements of the price for natural gas (Pb) required for balancing imbalance amounts in 2005 (Source: Energy Agency)

4.2.2 Unbundling of services

In 2005 the transmission system operator was carrying out its mandatory public service as an independent legal entity that is wholly owned by a domestic legal entity. Table 26 shows the ownership structure of the distribution system operators. As none of the 17 distribution companies has more than 100,000 customers connected to the network, in line with Article 31b of the EA, these distribution companies are not obliged to carry out their public services within a separate legal entity. Thus, in 2005 all distribution companies also carried out the optional public service of the supply of natural gas to the customers that are not eligible customers, and other market-based activities.

In line with Article 38 of the EA, the legal entities carrying out more than one energy-related service relating to the supply of natural gas, or another type of activity, have to manage separate accounts for each energy-related activity in line with Slovenian Accounting Standards. For the purpose of separate account management, in 2005 the companies prepared the rules that can be changed only in exceptional circumstances and for



well-justified reasons. The Energy Agency has to give approval to the changes of these rules. The rules relating to the separate accounts management have to be disclosed in the companies' annual reports and audited. In the audited annual reports for 2005 individual companies had to, in line with Slovenian Accounting Standards, disclose all important items relating to the associated entities (legal entities or individuals) In doing this, they disclosed the items that relate to a company as a whole, not only to the activity of the system operator. Individual companies define the levels of importance of these items in their internal acts.

Article 37 of the EA expands the group of entities obliged to have their financial statements audited in line with Article 57 of the Companies Act (the Official Gazette of the Republic of Slovenia, Nos. 42/06 and 60/06) by including all legal entities (also small companies) carrying out an energy-related activity associated with the supply of electricity, natural gas and heat.

4.2.3 The allocation of cross-border transmission capacities and the congestionmanagement mechanisms

4.2.3.1 Cross-border transmission capacities of the network

In 2005 cross-border transmission capacities were used for the provision of a reliable supply with natural gas in Slovenia and for the transit of natural gas in the cases of free capacities.

Free capacities at the border metering-regulation stations depend mainly on the entry pressures of the neighbouring transmission networks, on the gas-network load and on the required exit pressures. The exit pressure on the transmission network is adapted to the annual changing of the flow conditions in the network and to the largest possible load of the compressor station in Kidričevo. A 100-percent network utilization is possible when the temperature is above 4°C; when the temperature is -5°C only the contractually guaranteed supply can be provided; and when the temperature falls below -5°C, the supply to interruptible customers may be restricted. Table 29 shows the utilization of transmission capacities at the border metering-regulation stations.

Location		Capacity* Sm³/h, 15°C	above 4°C	Utilization of the capacity different temperatures (-5°C		Table 29
Ceršak		295,000	up to 100%	100%, contractually guaranteed supply	100%	
Rogatec	direction: central Slovenia	120,000	up to 100%	100%, contractually guaranteed supply		
	direction: Croatia	210,000	up to 100%	up to 100% u	p to 100%	
Šempeter		110,000	up to 77%	up to 77%	up to 77%	

Utilization of the capacity at the border metering-regulation stations

Source: Geoplin plinovodi, d. o. o.

4.2.3.2 The methods of setting the highest technical capacity

The transmission system operator used to set the highest technical capacity of the gas network on the basis of two models joined together: the model of calculating the gas network capacity by way of considering all possible combinations of the supply and consumption of natural gas, and the model of forecasting the gas consumption of domestic customers.

The following two simulation models were used:

- the online model that can, at any time and 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, i.e., changes, of the gas network.

The forecasting of the gas consumption was based on the model of forecasting by way of auto-learning, which activates the data on consumption in different operational conditions, and, on the basis of this data and similar current conditions, calculates the expected consumption.

The technical capacity of the network, thus, depends on the operation of the system and also on the current distribution of domestic consumption. The largest flow was assessed to be the flow at the border points that could, in individual seasons (mostly in winter), provide a normal consumption in Slovenia, as well as the gas transport carried out in line with the concluded contracts regarding the transport between different transmission networks.

4.2.3.3 The allocation of the transmission capacities of the network

The Regulation No 1775/2005/EC on the Conditions for Access to the Natural Gas Transmission Networks, which will begin to apply on 1 July 2006, will introduce important innovations. The objectives of this ordinance are to define harmonized principles for setting the tariffs, i.e., the methodologies for setting the use-of-network price, providing a non-discriminatory and transparent regulated access to the networks, allocating the capacities and congestion management, determining the requirements relating to transparency, setting the rules for balancing and charging for imbalances, and promoting the trading with capacities.

In 2005 there was no congestion on the cross-border transmission capacities, nor was there any physical or contractual congestion on the transmission network, though the entry and exit capacities were almost fully used, in line with the long-term contracts that will mostly expire in 2007.

In 2005 the contracts regarding the access to the gas transmission network in Slovenia were, in most cases, made for the whole calendar year.

Access to the transmission capacities is regulated by the following executive regulations:

- General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network (the Official Gazette of the Republic of Slovenia, No. 89/05);
- System Operation Instructions for the Transmission of Natural Gas (the Official Gazette of the Republic of Slovenia, No. 89/05);
- Ordinance Relating to the Operating Mode of the Public Service of the System Operator of the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, Nos. 97/04 and 8/05);
- Act Determining the Methodology for Charging for the Network Charge for the Gas Transmission Network (the Official Gazette of the Republic of Slovenia, Nos. 131/04 and 132/04).

When allocating transmission capacities the pro-rata principle was used. This system allows customers to submit, by 31 October of the current year, the applications for network access for the following calendar year. The system operator then allocates the available capacities with respect to the amounts of leased capacities of individual customers.



In 2005 the transmission system operator had no swap contracts, but only the contracts for the transport of natural gas between the neighbouring transmission networks. These contracts in no way threatened the provision of the transport of natural gas to the customers in Slovenia. In the case of appropriate technical capacities and appropriate conditions of flow and pressure, the contractual parties were able to have periodic amount balancing in the framework of their amount portfolios of gas supply.

The contracts for the transport between the neighbouring transmission networks were concluded after notifying the Government of the Republic of Slovenia, and in the framework of free amounts at the border points. Free amounts relating to specific periods were published on the system operator's website (www. geoplin-plinovodi.si). With respect to the European guidelines relating to the confidentiality of business data, this publication is restricted, if there are fewer than three eligible customers at a specific consumption point. In this way a non-discriminatory treatment of the parties interested in transporting gas between the transmission networks was guaranteed.

4.2.3.4 The congestion-management mechanisms

In 2005 the mechanisms for managing the congestion on the gas transmission network in Slovenia were not used because the amounts on the network were balanced. On the basis of the analyses of the existing mechanisms in the EU, the Energy Agency is preparing an appropriately adapted mechanism for allocating the capacities, which will increase the physical utilization of the capacities in the case of contractual congestions. In addition, the legislation allows a partial implementation of the principle, according to which the system operator makes the unused capacity available to interested network users. This is the so-called UIOLI (use-it-or-lose-it) method, used for allocating free capacities and managing congestions.

4.3 THE MARKET-BASED ACTIVITIES AND COMPETITION

4.3.1 The sources of natural gas and the wholesale market

In 2005 the demand of Slovenian customers for natural gas increased, as 3.4 percent more gas was supplied than in 2004. Slovenia's dependence on foreign sources did not decrease, as all natural gas was supplied from abroad. Most of the gas, 57 percent, was supplied from Russia, 33.7 percent from Algeria, 9 percent from Austria and 0.4 percent from Italy. Slovenia has no natural-gas sources of its own.





In 2005 in addition to Geoplin, d. o. o., two foreign suppliers, from Italy and Croatia, were active as the sellers of gas in the Slovenian wholesale market, supplying natural gas to the Slovenian border. The buyers in the wholesale market were only the companies for gas distribution, which are the suppliers in the retail market. The share of Geoplin, d. o. o., in the wholesale market was 99 percent. The selling of Geoplin's gas to the other gas suppliers was carried out on the basis of long-term contracts, which will mostly expire in 2007. In 2005 there was no interest for short-term contracts; however, it was noticeable that domestic and foreign suppliers, as well as eligible customers were very active in seeking the most favourable conditions for gas supply relating to the period following the expiry of the long-term contracts in 2007.

Slovenia has no organised market for natural gas, where demand and supply regarding certain standard products would meet.

Since 1 January 2005 Geoplin, d. o. o., has been carrying out the business activities related to the purchasing of natural gas from the producers, organising the transport of gas to the Slovenian border, selling gas in Slovenia and abroad, and providing the transport of gas across the territory of Slovenia for foreign partners.

In 2005 the ownership of Geoplin, d. o. o., changed, as Petrol, d. d., acquired a large share from Sava, d. d., and other minor owners.

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4.3.2 The supply and the retail market

In the retail market the following market participants meet: the suppliers to eligible customers, the suppliers to tariff customers, eligible customers, and household customers of natural gas. Geoplin, d. o. o., has a 72percent share of the Slovenian retail market, while the suppliers to the customers on the distribution networks have a total of 28 percent of the market.

The level of dominance in the market is determined with the HHI (the Hirshmann-Herfindahl index) described in section 3.3.1.5.

Table 31 and Figure 49 show the market shares and the HHIs relating to the retail market.

	Share	HHI
Geoplin, d. o. o.	72.2%	5,211
Energetika Ljubljana, d. o. o.	8.9%	80
Plinarna Maribor, d. d.	4.5%	21
Adriaplin, d. o. o.	4.4%	19
Energetika Celje, d. o. o.	2.6%	7
Others	7.3%	54
TOTAL	100%	5,391
	Geoplin, d. o. o. Energetika Ljubljana, d. o. o. Plinarna Maribor, d. d. Adriaplin, d. o. o. Energetika Celje, d. o. o. Others	Geoplin, d. o. o. 72.2% Energetika Ljubljana, d. o. o. 8.9% Plinarna Maribor, d. d. 4.5% Adriaplin, d. o. o. 4.4% Energetika Celje, d. o. o. 2.6% Others 7.3%

Source: Companies' data and the Energy Agency

Market shares and the HHIs relating to the retail gas market in Slovenia



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The retail market consists of two parts that differ significantly from each other: one part includes the customers connected to the transmission network, and the other includes the customers connected to the distribution networks.

4.3.2.1 The customers connected to the transmission network

The customers connected to the transmission network are mostly large industrial customers. In 2005 they were 164 customers, and they consumed a total of 791 million Sm³ of gas supplied to them by Geoplin, d. o. o., which had 100 percent of this part of the market. The supply to large industrial customers was mainly carried out on the basis of long-term contracts that will mostly expire in 2007, while no short-term contracts were made in 2005. These customers are already seeking opportunities for favourable conditions for the supply of gas after the expiry of the long-term contracts.



In 2005 the customers connected to the transmission network had the right to switch supplier. However, there were no supplier switches, the most important reasons being the long-term supply contracts, an unclear procedure for switching supplier and the fact that there were no new suppliers in the market.

As the supply continued to be reliable and there was no abuse of a dominant position of the supplier to customers connected to the transmission network, no measures for the promotion of competition, such as the Gas Release Programme, were taken.

4.3.2.2 The customers connected to the distribution networks

The suppliers to eligible customers connected to a gas distribution network, supplied gas under the conditions stated in the tariff systems, or under other specifically agreed conditions. Within the companies for gas distribution the supply of gas to tariff customers was also being carried out. In these cases household customers were also supplied with gas under the conditions of the tariff systems. The suppliers to eligible customers and the suppliers to tariff customers are organised within the companies for gas distribution.

The suppliers to the customers on the distribution networks supplied 111,757 customers with 305 million Sm³ of gas. Energetika Ljubljana supplied most of the customers, delivering a total of 73 million Sm³ of gas to 53,157 customers, and used 25 million Sm³ of gas for the production of heat.

The suppliers to the customers on the distribution networks mainly supply gas to household customers. With respect to the total number of customers, households amount to 92 percent of all customers, while their consumption accounts for only 41 percent of the total consumption of the customers connected to the distribution networks.



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Ratio between the number of eligible customers and households, and their consumption on the distribution networks (Source: Energy Agency)

In 2005 there were no new suppliers in the Slovenian gas market. Natural gas was being supplied by the public companies for gas distribution or by private companies.

Only two companies for gas distribution (Adriaplin, d. o. o., and Javno podjetje plinovod Sevnica, d. o. o.) have ownership links with Geoplin, d. o. o., with a 11-percent share and 6-percent share.

The eligible customers connected to the gas distribution network did not have the option of switching supplier. In 2005 the network charges for the distribution networks providing foundations for the competition in the retail market were not yet set. In addition, other executive regulations determining, in detail, the rules for switching supplier were not yet adopted.

4.3.2.3 The market shares of the retail markets

Establishing market shares of individual markets is very important for identifying the competition in the energy markets. Section 4.3.2 shows market shares relating to all the customers in Slovenia.

Equally important are the market shares relating to the customer groups that differ from each other with respect to their annual consumption:

- the customers with an annual consumption of more than a million Sm³ of natural gas;
- the customers with an annual consumption between 4500 and a million Sm³ of natural gas;
- the customers with an annual consumption of less than 4500 Sm³ of natural gas.

In Slovenia there is a total of 111,921 customers of natural gas, but only 122 of them consumes more than a million Sm³ of gas per year. These customers consume a total of 853 million Sm³ of gas or 83.5 percent of the total consumption. Geoplin supplies 90 percent of these customers. Figure 52 and Table 32 show the market shares and the HHIs of the largest suppliers to these customers.



HHIs for the largest suppliers to the customers with an annual consumption of more than a million Sm³ of gas

The HHIs show that Geoplin has a dominant position in this market.

Source:

Energy Agency

About 4050 customers in Slovenia have an annual consumption between 4500 and a million Sm³ of gas, and their total consumption is about 147 million Sm³ of gas, or 14.5 percent of the total consumption. Figure 53 and Table 33 show the market shares and HHIs of the largest suppliers to these customers.

Market shares of suppliers to the customers with an annual consumption between 4500 and a million Sm³ of gas (Source: Energy Agency)



Company	Share		able 33
Energetika Ljubljana, d. o. o.	22.5%	506	
Adriaplin, d. o. o.	17.4%	302	
Geoplin, d. o. o.	15.1%	229	
Plinarna Maribor, d. d.	11.2%	125	
Mestni plinovodi, d. o. o.	6.3%	39	
Others	27.5%	758	
Total	100%	1,959	

The HHIs show that no supplier has a dominant position in this market.

The customers with an annual consumption of less than 4500 Sm³ of gas mainly include the households using natural gas for various purposes, as well as small industrial customers and commercial customers. The number of these customers is over 107,000, but their total consumption in 2005 was less than 100 million Sm³ of gas. Figure 54 and Table 34 show the market shares and HHIs of the largest suppliers to these customers.







Table 34	Company	Share	HHI
	Energetika Ljubljana, d. o. o.	39.0%	1,520
	Plinarna Maribor, d. d.	15.7%	247
	Adriaplin, d. o. o.	12.7%	160
	Energetika Celje, d. o. o.	7.8%	61
	Mestni plinovodi, d. o. o.	6.2%	38
	Others	18.6%	347
	Total	100%	2,374

The HHIs show that Energetika Ljubljana, d. o. o., has a partly dominant position in this market.

4.3.2.4 The prices for natural gas in Slovenia

4.3.2.4.1 The prices for natural gas on the transmission network

The price paid by a customer from a specific customer group is calculated in line with the methodology used by Eurostat. The customers from a specific customer group are typical customers with respect to the purpose of gas consumption, annual consumption and load factor. Industrial customers are classified into several standard customer groups.

Group	Consumption in thousands of Sm ³	Load factor	Table 35
I ₂	111	200 days	U
I ₃₋₁	1,107	200 days and 1,600 hours	
I ₃₋₂	1,107	250 days and 4,000 hours	
I ₄₋₁	11,065	250 days and 4,000 hours	
I ₄₋₂	11,065	330 days and 8,000 hours	\frown
Customer grou	ups of industrial customers		Source: SORS

Customer groups of industrial customers

For the customers connected to the gas transmission network, only the fraction of the gas price relating to the transmission across the network is regulated. The rest of the price changes in line with the conditions set in a supply contract, and in line with the movement in the prices for oil and oil derivatives in international markets, as well as the trends of the foreign-currency rates. The year 2005 was very lively with respect to the movement in the prices of oil derivatives, resulting in a rapid increase in the price for natural gas. A customer's load factor is also a very important factor affecting the price for natural gas.

The average price for natural gas on the transmission network increased by 31 percent.

Average prices for natural gas on the transmission network (Source: Geoplin, d. o. o.)







Prices for natural gas for typical industrial customers (Source: Geoplin, d. o. o.)

The price for natural gas for the customers connected to the transmission network consisted of the price for the use of network and the price for natural gas. For industrial customers, the use-of-network price covers a small share of the final price for natural gas. In the case of the typical industrial customers I₂, the price for the use of the transmission network covers 13 percent of the final price, while in the case of the largest industrial customers it covers only 6 percent of the final price.



Structure of the prices for natural gas for typical industrial customers connected to the transmission network (Source: Geoplin, d. o. o.)

4.3.2.4.2 The prices for natural gas on the distribution networks

The prices for natural gas for the customers connected to the distribution networks were formed in line with the tariff systems. In 2005 the prices for natural gas were still entirely within the province of the local authorities, and were not yet divided into the regulated and market-based fractions. In the breakdown of final prices, only duties and value-added tax were listed separately. The prices for natural gas for these customers are not set in a unified way and are formed at the level of individual local communities, or several communities joined together, and for this reason these prices are mainly affected by the network characteristics in a certain area, the policy of local authorities and business policies of the companies for gas distribution.

The concession contracts of the distribution companies, or other relevant documents, can determine that the price for natural gas should not exceed the price for heating oil that can replace natural gas. In such cases, the prices are calculated with respect to the appropriate calorific values. The tariff groups and the mode of increasing the final prices for natural gas are agreed between the distribution companies and the local authorities.

The prices for natural gas for customers on the distribution networks can only be compared among typical customers with standard characteristics of gas consumption. The prices for natural gas in Slovenia are not set in a unified way, as the companies for gas distribution consider the tariff systems of individual municipalities and accordingly adapt the prices for individual customer groups.

Figure 58 shows the average gas prices in Slovenia for typical household customers. These prices have been calculated as a weighted average of the prices in larger towns.

Group	Consumption in Sm ³	Purpose of consumption	Table 36
D ₁	221	Cooking and preparing hot water	U
D ₂	443	Cooking and preparing hot water	
D ₃	2,241	Cooking, preparing hot water and heating	
D _{3b}	3,323	Cooking, preparing hot water and heating	\frown

Gas consumption of typical households by customer group



tolars/Sm³ 180 Price with taxes Price without duties 160 and VAT 140 120 100 80 60 40 20 0 FIGURE 58 D₁ D₃ D_2 D_{3b}

Gas prices for typical households as of 1 July 2005 (Source: SORS)

4.3.3 The internal market for natural gas in the EU

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The formation of the internal market for natural gas requires a more intense market integration and increased efforts to develop more supply options. The EU countries have very different models of the market for natural gas. The countries that have few links with the neighbouring countries and a restricted access to external sources are facing a lot of problems when trying to put in place a competitive environment. On the other hand, the countries that have access to a number of different sources, and have released their capacities are achieving good results. For example, Great Britain has a mature competition structure, while in Ireland large customers have had for several years an option to choose supplier. The best results are recorded in the markets that have access to a wide range of sources, like in Belgium, Denmark and the Netherlands. Italy and Spain have also made good progress. In all of these Member States at least 30 percent of the customers have switched supplier. France is gradually approaching the level of development of the previously-mentioned countries, while the development in Germany and Austria is still rather slow.

In Great Britain, which has a very developed market for natural gas, the regulator carries out its activities having regulated the public services for two decades. In this country switching supplier is done quickly and in a simple way. Another characteristic of Great Britain is the fact that it has its own sources of natural gas, with which it can cover more than 90 percent of the total consumption. The situation in Germany, for example, is completely different; the regulator is only now getting ready for setting the prices for the use of the distribution networks.

A serious problem at the state level arises from the fact that there is often only one company supplying the market with almost all the required gas. This fact significantly affects the development of competition at the supply level. Even when there are several suppliers, the competition among them is rather ineffective, as they all buy gas from the same wholesale merchant. The solution to this problem is the formation of a single European market for natural gas. However, the development of the internal market is obstructed by the continuous long-term reservations of the transmission capacities, and different ways of charging for the use of individual transmission networks.

The markets for natural gas are governed by stiff conditions resulting from a shortage of links between different national markets. The inappropriate systems of balancing and storing, as well as the high tariffs for the use of the distribution networks in several countries additionally hamper the switching of supplier.

4.3.3.1 The effects of the opening up of the markets for natural gas

The effects of the opening up of the markets for natural gas are noticeable, as many of the EU countries have already fully opened their markets. On the other hand, several participants of the internal European market wonder whether such a solution really leads to an actual market, as a lot of binding regulation and decision-making is provided by the governments, while, at the same time, there are only a few suppliers. In addition, the EU countries do not use a uniform model of regulating, and for this reason the effects of the opening of the markets vary significantly.

The effectiveness of liberalised markets for natural gas is assessed on the basis of the following indicators:

- the conformity of price movements;
- the development of cross-border connections;
- the entry of new participants in the market;
- the activities of the customers regarding switching supplier;
- the degree of concentration of the wholesale and retail markets.

In some EU countries individual indicators already show favourable effects of market liberalisation, mainly the decrease in the prices for natural gas for industrial customers. These indicators help in establishing the actual effectiveness of a liberalised market, which can differ from the expectations based on the legislative and executive regulations.



4.3.3.2 The prices for natural gas for typical customers compared with the EU prices

In almost all EU countries it was believed that liberalised markets would lead to a decrease in the prices for natural gas. However, the directives and EU regulations do not consider a decrease in the prices to be an objective of a liberalised market; instead, the objective is the formation of fair, transparent and regulated prices. Nevertheless, in some countries one of the first effects of market liberalisation was also a decrease in the prices. This was the case in Great Britain, where a lot of suppliers have their own sources of natural gas, and they can attract new customers with low prices (Figure 59).

Figure 59 shows the prices for natural gas for very large industrial customers with an annual consumption of about 11 million Sm³ of gas and with a load factor of 250 days and 4000 hours. Figure 60 shows the movement of gas prices for large industrial customers with an annual consumption of 1.1 million Sm³ of gas, with a load factor of 200 days and 1600 hours. No decrease in the gas prices for small industrial customers can be seen, only the dependence of these prices on the prices for oil derivatives is noticeable.

Gas prices for very large industrial customers with an annual consumption of about 11 million Sm³ (I₄₋₁) (Source: Eurostat and the Energy Agency)





Gas prices for large customers with an anual consumption of 1.1 million Sm³ (I₃₋₁) (Source: Eurostat and the Energy Agency)



Gas prices for households (D₃) (Source: Eurostat and the Energy Agency)



The increase in the gas prices follows the trend in the increase in the prices for energy sources in international markets. The years 2004 and 2005 saw sharp increases in the prices for oil derivatives, resulting in a significant increase in gas prices. In 2005 the basic price for natural gas on the transmission network in Slovenia increased by 34 percent. On the other hand, in the period from July 1997 to July 2005 the gas prices for the final customers in the EU countries increased by 22 percent.

Table 37 shows more detailed data regarding the trends of the gas prices in the EU countries by individual typical customer.

Table 37		July 1997	July 2000	July 2005
	Households and small customers with an annual consumption of up to 10,000 Sm ³	100	91	115
	Medium-sized industrial customers with an annual consumption of up to 111,000 Sm ³	100	95	140
	Large industrial customers with an annual consumption of up to 1.1 million Sm ³	100	93	137
	Very large customers with an annual consumption of up to 11 million Sm ³	100	98	135
	Average for all customers	100	92	122
Source: European	Gas-price index			

Commission

Gas-price index

The relationship between the gas prices and prices for oil derivatives arises from the past when the gas prices were set on the basis of the prices for oil derivatives that can replace natural gas. The gas prices will follow the prices for oil derivatives until the market for natural gas becomes liquid enough to send signals regarding the changes to gas prices. A certain degree of liquidity and response to external factors was noticed at the end of 2005 when an interruption to the supply by Gazprom, a Russian company, to the Ukraine caused an immediate increase in the price of gas.



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

4.3.4.1 The findings and measures of the Competition Protection Office

In 2005 the Competition Protection Office did not receive any request for an assessment of the restrictions, abuse of a dominant position or a concentration of the companies in the natural-gas market. Neither did the office take additional measures for ensuring a sufficient number of market participants, or for promoting the cross-border exchange, and fair and free competition. The office did not carry out any procedure regarding an offence relating to the natural-gas market within its responsibility.

4.3.4.2 The findings and measures of the responsible ministry

No serious irregularities were recorded in the market for natural gas. There were only a few cases of hampering the network access, but the access was not denied. Neither the Ministry of the Economy nor the government took any measures in the market for natural gas.

The ministry, or the government, were including all the participants in the natural-gas market in the preparations and adoptions of the regulations affecting the market operation, and, in this way, indirectly provided for transparent and non-discriminatory conditions in the market. They also recommended other producers of general legal acts (such as the system operator) to involve all the participants in the preparation of these documents.

No mechanisms included in the Gas Release Programme were applied.

In 2005 the suppliers and other participants were not yet required to report on the measures for safeguarding the reliability of the natural-gas supply.

No direct incentives for constructing new transmission paths for importing and storing natural gas were allocated. However, the ministry issued an approval of the development plan of the gas transmission system operator. In the methodology for setting the network charge, the Energy Agency took into account the costs of such investments, and their return. An energy permit is not required for constructing new pipelines.

No requests for deciding on disputes were submitted; however, a few clarifications of the EA and other regulations regarding the relations between the distribution companies and the local communities were prepared.

No special restrictions or requirements regarding the structure of a gas supply contract are in force in the market. The legislation requires that the procedure of switching supplier is free of charge.

4.3.5 Deciding on disputes and complaints

With respect to natural gas, in 2005 the Energy Agency did not receive any requests to decide, in the administrative procedure at the first instance, on disputes between the network users, or the interested parties, and the system operator. Neither did it receive any request to decide, in the administrative procedure, on complaints against the decision regarding an approval for connecting to the natural-gas network.



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5.1 ELECTRICITY

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 cover 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 can occur in the operation 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 (pipeline, 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 distribution networks, while, for economic reasons, it is not used for the lower levels of the distribution networks.

5.1.1 The sufficiency of the production

Figures 62 and 63 show how electricity demand was covered in the period 1990–2005. In the period 1998–2002 Slovenia had large surpluses of electricity, but since 2003 it has had a deficit of electricity that has increased every year. The main reason for the surplus was an unclear relation with Croatia with respect to the status of the nuclear power station, resulting in Slovenia using its entire capacity and produced energy. However, in line with the agreement made in April 2003, half of the capacity of the nuclear power station was given to Croatia. Since then Slovenian suppliers have had to top up the shortfall in electricity by buying energy in the foreign markets. The amount of the domestic electricity production is also affected by the hydrological conditions, as, due to a relatively large share of the hydroelectric power stations in the Slovenian system, their production strongly influences the total Slovenian electricity production.

With respect to 1998–2002, Figures 62, 63 and 64 take into account the total production of the Nuclear Power Station, Krško.



Production and consumption of electricity in Slovenia for 1990-2005 (Source: Milan Vidmar Electric Power Institute)

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Surpluses and deficits of electricity in Slovenia for 1990–2005 (Source: Milan Vidmar Electric Power Institute)





Like the conditions relating to fulfilling the energy demand, were the conditions relating to the peak power, or production reserves, that can be described as a ratio between the installed power of the hydroelectric power stations in the system and the peak power of the consumption (Table 38). Thus, the ratios between the installed power and the peak power for 1998–2002 also show surpluses.

Year	Installed power of the system (MW)	Peak consumption (MW)	Pinstalled/Pconsumed	Table 38
				-0
1990	2,061	1,688	1.22	
1991	2,061	1,616	1.28	
1992	2,061	1,423	1.45	
1993	2,100	1,484	1.42	
1994	2,100	1,507	1.39	
1995	2,100	1,551	1.35	
1996	2,100	1,599	1.31	
1997	2,100	1,652	1.27	
1998	2,100	1,734	1.21	
1999	2,414	1,686	1.43	
2000	2,682	1,705	1.57	
2001	2,682	1,838	1.46	
2002	2,749	1,901	1.45	
2003	2,422	1,923	1.26	
2004	2,441	1,991	1.23	
2005	2,462	2,043	1.21	
				· · · · · · · · · · · · · · · · · · ·

Trends of installed power and peak power in the electricity system

Source: Milan Vidmar Electric Power Institute

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5.1.2 Planned investments in the production facilities

For the purpose of constructing new production capacities in Slovenia, an authorisation procedure is applied; this procedure includes the issuing of energy permits relating to the production facilities, or the concessions for the use of natural sources. In the case of the construction of production capacities being insufficient, the government can also publish a call for tenders to construct new production capacities.

By the end of 2005, energy permits for several important production units with a power of over 10 MW were issued. In addition, it is expected that, in the period until 2008, and on the basis of Eles's assessment of the sufficiency of the production capacities in Slovenia for 2005–2008, the following new production units will be constructed:

- the HPS Boštanj: 33 MW, which will start to operate in May 2006;
- the TPS Šoštanj: two additional gas generators (2 x 42 MW) as part of Block 5, their completion is expected in 2008, after this reconstruction the total power of Block 5 will be 378 MW, the project is in the phase of project engineering;
- the Pumped-Storage Power Station, Avče: 190 MW in the turbine and pumping regimes, is already under construction, and is expected to start operating in 2009.

In addition to constructing new facilities, two reconstructions of existing production facilities, allowing an increase in the available capacity, are expected:

- the reconstruction of the HPS Zlatoličje, allowing an increase in the power by 22 MW; the renewed generator 1 with an additional 11 MW is expected to start operating in 2008;
- the replacement of the turbine in the nuclear power station in 2006 will increase the total power by 20 MW (half of it for Slovenia).

No power station is expected to shut down its operation before 2008. Instead, it is expected that, by 2008, Slovenian production capacities will increase by 138 MW. Table 39 shows the trends of the installed power of Slovenian power stations and their production by 2008.

Year	2005 (actual facts)	2006 (estimation)	2007 (estimation)	2008 (estimation)	Table 39
Installed power (MW)	2,462	2,462	2,462	2,600	•
Production (GWh)	10,861	10,750	10,750	10,815	

The details about the estimated production of Slovenian power stations were presented in Eles's assessment of the sufficiency of the production capacities that sets 2004 as the initial year. The results achieved in 2005 showed that the actual production (10,861 GWh) was much bigger than the expected production (10,750 GWh). When forecasting the production, it is, of course, necessary to consider the fact that the production of power stations depends on several factors, especially the hydrological conditions, and the developments in the market that mainly affect the production of the thermoelectric power stations.

In 2005 the Energy Agency commissioned a study entitled Scenarios of the Growth of the Electricity Consumption. One outcome of the study was the forecasted peak consumption using different scenarios. Table 40 shows a comparison of the expected growth in installed power of the power stations with the increasing peak consumption for two different scenarios. In most cases the reserve power does not cover 20 percent of the peak consumption, which shows that, in the period until 2008, the shortfall in electricity will have to be topped up by imports.

2005 (actual facts)	2006 (estimation)	2007 (estimation)	2008 (estimation)	Table 40
2,462	2,462	2,462	2,600	U
MW) 2,043	2,108	2,173	2,241	
1.21	1.17	1.13	1.16	
MW) 10,861	2,086	2,129	2,176	
1.21	1.18	1.16	1.20	\sim
	(actual facts) 2,462 MW) 2,043 1.21 MW) 10,861	2,462 2,462 WW) 2,043 2,108 1.21 1.17 MW) 10,861 2,086	Actual facts) (estimation) (estimation) 2,462 2,462 2,462 MW) 2,043 2,108 2,173 1.21 1.17 1.13 MW) 10,861 2,086 2,129	Cactual facts)(estimation)(estimation)(estimation)2,4622,4622,4622,600MW)2,0432,1082,1732,2411.211.171.131.16MW)10,8612,0862,1292,176

Installed power of the Slovenian power stations and the growth of the peak consumption for 2005–2008

Source: Milan Vidmar Electric Power Institute

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Meeting the demand of the Slovenian electricity system in the period until 2008 (Source: Eles, Milan Vidmar Electric Power Institute)

5.1.3 The security of the network operation

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In 2005 the transmission system operator managed to sufficiently balance the production and demand of electricity. The total amount of unsupplied electricity was 13 MWh. The reasons for all the interruptions were the errors in the network. The most important reason for the unforecasted supply interruptions was bad weather conditions – in as much as 86 percent of such cases the energy was not supplied due to a thunderstorm. In spite of the insufficiency of the Slovenian production sources used for meeting domestic demand, the supply was never interrupted because of a shortage of electricity.

5.2 NATURAL GAS

Slovenia does not have its own sources of natural gas, and is entirely dependent on foreign sources. Forecasting the demand is very important for the provision of a reliable supply. A projection of the natural-gas supply until 2015 has been described in the Resolution on the National Energy Programme (the Official Gazette of the Republic of Slovenia, No. 57/04), which expects as much as a 3.5-percent annual growth for the period 2000–2015.

To provide for a reliable supply, in 2005 a development plan for the gas transmission network for 2005–2014 was adopted. This plan expects extensive investments in the gas transmission network. The construction of additional transmission capacities should meet the expected increased demand for natural gas.

For the following three years a 23-percent demand growth is expected in comparison with the gas demand in 2005. The expected increase in the gas demand includes an increased demand of the distribution customers, and additional amounts required by the electricity producers. The supply of natural gas to the electricity producers is expected to start in 2008 (TPS Šoštanj). The recent rapid increase in the gas prices lessens the interests of investors in the investments in the production facilities using natural gas as an energy source. In 2005 the investors were obtaining national location plans for the construction of new transmission capacities.

In 2005 the gas supply to the customers on the transmission and distribution networks was reliable and of high quality. The gas supply was interrupted because of the restrictions on the supply, and because of the activities carried out at the Gorizia border station in Italy. During the first quarter of the year, the supply to some interruptible customers was interrupted because of the low temperatures and small reductions. Some restrictions, or interruptions of gas transmission, occurred in mid-year because of the maintenance works on the Slovenian transmission network.

A reliable supply to gas customers was also made possible by the Kidričevo compressor station operating for more than three quarters of the time. In future an even more reliable supply will be safeguarded by way of different mechanisms stipulated by the Directive 2004/67/EC Concerning Measures to Safeguard the Security of the Natural Gas Supply. A reliable supply will be mainly the responsibility of the gas suppliers, and partly also of the system operator.

In 2005 the Energy Agency was involved in preparing the amendments to the EA, and a new Ordinance Regarding a Reliable Supply of Natural Gas, with which the provisions of the Directive Concerning Measures to Safeguard the Security of the Natural Gas Supply will be implemented. Both documents are expected to be adopted in the second half of 2006.

The expected amendments to the EA relating to the provision of a reliable supply of natural gas will mainly include the following:

- the provision of a reliable network operation, and its appropriate capacity;
- a dispersion of supply sources;
- reporting on the measures to safeguard a reliable supply;
- identifying specialised customers;
- setting the standards for the reliability of gas supply;
- setting emergency measures.


6.1 GENERAL INFORMATION

In line with the EA and the Public Utilities Act, the organisation and the operating mode of the national public services are regulated by the Government of the Republic of Slovenia, while the local public services are regulated by the local authorities. For the provision of the public services listed in the table below it is necessary to obtain a licence.

The providers of public services are mainly responsible for the safe operation, the reliable supply of energy, the supply under general conditions to all customers, a regular and permanent operation, the provision of required quality, sensible energy prices, and the protection of the environment.

The EA identifies the following public services relating to the supply of electricity, natural gas and district heating:

Activity	Form	Regulated PS	Table 41
electricity transmission-system operation	mandatory national public service	YES	
electricity distribution-system operation	mandatory national public service	YES	
electricity supply to tariff customers	mandatory national public service	YES	
electricity-market operation	mandatory national public service	YES	
gas transmission-system operation	mandatory national public service	YES	
gas storage-facility operation	optional national public service	-	
liquefied-gas terminal operation	optional national public service	-	
gas-market operation	optional national public service	-	
gas distribution-system operation	optional local public service	YES	
gas supply to tariff customers	optional local public service	YES	
heat distribution	optional local public service	NO	
supply of energy gases other than natural gas	optional local public service	NO	_

In 2005 the optional national public services of the gas storage-facility operation, liquefied-gas terminal operation, and gas-market operation were not provided.

Prior to granting relevant concessions, the public services relating to electricity supply will be carried out by public companies.

The mandatory public service relating to the gas supply on the transmission network is to be provided on the basis of a granted concession. Prior to the implementation of a concession contract, the public service of the gas transmission-system operation will be carried out by the gas transmission system operator that started to provide this service as a separate legal entity on 1 January 2005. The optional local public services are carried out, on the basis of granted concessions, by public companies, and by individuals subject to private law, receiving investments of public capital.

6.2 CUSTOMER PROTECTION IN THE MARKETS FOR ELECTRICITY AND NATURAL GAS

To ensure customer protection, measures relating to the supply with electricity and natural gas have been taken. These measures were also required by the directives concerning the common rules for the internal market in electricity and natural gas (2003/54/EC and 2003/55/EC).

6.2.1 Electricity

6.2.1.1 The contracts regarding electricity supply to tariff customers

On the basis of the Ordinance Regarding the Operating Mode of the Public Service of the System Operator of the Distribution Network for Electricity, and the Public Service of Supplying Electricity to Tariff Customers (henceforth referred to as the ordinance on the supply to tariff customers), a supplier to tariff customers is obliged to make a supply contract with each tariff customer connected to the distribution network in the area in which the system operator carries out its public service. This ordinance, as well as the Ordinance Regarding General Conditions for the Supply and Consumption of Electricity, determines the most important elements, or details, that have to be included in a contract regarding the supply to tariff customers. The provisions regarding mandatory details as determined by these ordinances, also meet the requirements of the above-mentioned directive.

The contracts regarding electricity supply are made as adhesion contracts, or accession contracts, which are prepared in advance, but the parties have the options to accept the proposed contractual clauses, reject them or amend them. In line with the ordinance on the supply to tariff customers, the content of the supply contract should be available to the tariff customers before its conclusion. In addition, the tariff customers should also be informed about any amendments made to the contractual requirements. If the tariff customers do not agree with the amendments, they can withdraw from the contract.

The suppliers of electricity to end customers are obliged to publish, on the issued electricity bills and in their promotional materials, the shares of individual production sources within the whole structure of electricity production for each supplier operating in the previous year.

6.2.1.2 The protection of vulnerable customers

The protection of vulnerable customers is one of the most important forms of customer protection, and it is regulated by the EA. This act determines that a system operator should not stop the amount of supplied electricity 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, is not threatened. The supplier's costs arising from such a situation are covered by the revenues from the use-of-network price.

A supplier to tariff customers has to supply the above-mentioned customers if these customers have an appropriate decision regarding a customer's inability to pay electricity, issued by a social service. In 2005 the system operators interrupted, or stopped, the supply due to unpaid electricity bills to less than 0.6 percent of the customers.

System operator	Number of disconnections due to unpaid bills	Percentage of disconnections based on the total number of customers	Table 42
Elektro Celje, d. d.	1,414	0.16%	Ŭ
Elektro Gorenjska, d. d.	368	0.04%	
Elektro Ljubljana, d. d.	1,300	0.15%	
Elektro Maribor, d. d.	1,322	0.15%	
Elektro Primorska, d. d.	546	0.06%	
Total	4,950	0.57%	_

Companies' data

6.2.1.3 The price publishing

On the basis of the Ordinance on the Tariff System for the Sales of Electricity, a supplier has to have its final price for electricity published all the time on its website, and each change of the price has to be published on the website and in daily newspapers.

6.2.1.4 The right to appeal, or the right to legal remedies, and dispute settling

In line with the EA, a network user has the right to appeal against a decision of a system operator relating to issuing or denying a connection approval. The Energy Agency decides on an appeal.

In line with the Ordinance Regarding General Conditions for the Supply and Consumption of Electricity, the tariff customers have the right to submit, to the supplier, their comments, or complaints, regarding a received bill or statement.

In line with the ordinance on the supply to tariff customers, and the Ordinance Regarding General Conditions for the Supply and Consumption of Electricity, one of the crucial elements of a contract regarding the supply to tariff customers is an agreement on the mode of settling disputes arising from the contract.

6.2.1.5 The right of compensation

The Ordinance Regarding General Conditions for the Supply and Consumption of Electricity gives a network user the right of compensation for the damages, if the system operator interrupted, or stopped, electricity supply, without due cause, if a supply interruption lasted for an unreasonably long period, if the electricity quality does not meet the current standards, or the contractually agreed value, or if another user has been causing disturbances.

6.2.2 Natural gas

6.2.2.1 The protection of vulnerable customers

As in the area of electricity, the protection of vulnerable gas customers is also regulated by the EA. This document stipulates that a system operator should not stop the supply of an amount of energy 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, is not threatened. The supplier's costs arising from such a situation are covered by the revenues from the use-of-network price.

6.2.2.2 The price publishing

In 2005 the gas suppliers to tariff customers had to obtain, prior to the publication of their pricelists, approvals from the local authorities. The prices for the gas supply were published.



6.2.2.3 The measures for the customer protection

The providers of the public services of the gas distribution-system operation, and the supply to tariff customers will adopt, on the basis of the general acts, and the Energy Agency's methodologies passed in 2005, the acts for which they have to obtain approval from the Energy Agency, or from the local authorities, prior to their publications.

The general acts of the providers of public services, especially the general conditions for the supply and consumption, will also have to include the measures for the customer protection determined by the Directive Concerning the Common Rules for the Internal Market in Natural Gas, such as:

- the rights relating to the contracts between the households and their suppliers;
- informing about intended changes to the contractual conditions;
- the transparency of current prices, tariffs, and general conditions relating to the network access and the use of services;
- an option to select from among different payment modes;
- an option to switch supplier without paying for the costs of the switch;
- the right to transparent, simple and cheap procedures in the case of a complaint;
- informing about the right to a supply with natural gas of a certain quality, and at a reasonable price.

Switching gas supplier is free of charge.

6.2.2.4 The right to appeal or to legal remedies

In line with the EA, a network user has the right to appeal against a decision of a system operator relating to issuing or denying a connection approval. The Energy Agency decides on an appeal.

6.3 REGULATION OF THE FINAL PRICE

6.3.1 The price

Among the public services determined by the EA, the final price is regulated for the electricity supply to tariff customers, and the gas supply to tariff customers. Eligible customers cannot require a supply under the conditions determined by a tariff system for tariff customers.

6.3.1.1 Electricity

The final price for electricity supplied to tariff customers is regulated by the Government of the Republic of Slovenia in line with the Ordinance on the Tariff System for the Sales of Electricity.

The final price for the electricity supplied in the framework of guaranteed supply is also regulated. The guaranteed supply is a mechanism aimed at customers whose supplier stops supplying electricity without it being their fault, for example, in the case of the supplier going bankrupt. The guaranteed supply is provided by a supplier to tariff customers that sets the electricity price in the framework of guaranteed supply in such a way that it covers the long-term price for purchasing electricity, and the costs for providing the guaranteed supply. However, the price should not be more than 15 percent higher than the price paid by a comparable customer under a contract made with the same electricity supplier. A supplier to tariff customers is also a default supplier to the customers that have not selected their suppler.

6.3.1.2 Natural gas

With respect to natural-gas distribution, the Energy Agency issued the general acts setting the network charges, including the Act Determining the Methodology for the Preparation of a Tariff System for a Gas Distribution Network. This general act determines the elements of the accounts relating to the energy supplied to different customer groups with respect to the power, type and characteristic of their consumption. The suppliers to tariff customers will, on the basis of this general act of the Energy Agency, issue the tariff systems for the geographical areas in which they provide the respective public service. Prior to publishing a tariff system, they will have to obtain approval from the local authorities.

6.3.2 Financing the suppliers

The suppliers of electricity to tariff customers are financed by the price fraction covering the suppliers' costs relating to the supply of electricity to tariff customers. The Government of the Republic of Slovenia gives approval to the evaluation of the suppliers' costs. The suppliers to tariff customers also provide the guaranteed supply of electricity, which is financed by the price for electricity in the framework of guaranteed supply.

The suppliers of natural gas to tariff customers are financed, on the basis of the provisions of individual ordinances of the local communities, by the final price for natural gas. In certain cases the local communities stipulated in an ordinance, and consequently also in a concession contract, or in an instrument of constitution relating to a public company, that the difference between the actual costs and the revenues from the final price, which may not cover all the costs, can be covered by the budget funds and other sources.

In 2005 a total of 102,565 gas customers, consuming 10.2 percent of the total gas supply, were supplied at regulated prices. On the other hand, 89 percent of electricity customers, consuming 25 percent of the total electricity supply, were supplied at regulated prices.

6.4 SAFEGUARDING TRANSPARENCY

The transparency of the conditions for the supply and consumption is provided for by the general acts. With respect to electricity, the relevant document is called the General Conditions for the Supply and Consumption of Electricity from the Transmission and Distribution Networks, and it is adopted by the transmission system operator after obtaining a positive opinion from the Energy Agency and approval from the Government of the Republic of Slovenia. With respect to natural gas, the relevant documents are the General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network, which is adopted by the transmission system operator after obtaining a positive opinion from the Energy Agency and approval from the Government of the Republic of Slovenia, and the General Conditions for the Supply and Consumption of Natural Gas from the Transmission system operator after obtaining a positive opinion from the Energy Agency and approval from the Government of the Republic of Slovenia, and the General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network, which is adopted by the transmission system operator after obtaining approval from the General Conditions for the Supply and Consumption of Natural Gas from the Transmission Network, which is adopted by the transmission system operator after obtaining approval from the Energy Agency and the relevant local authority. The Energy Agency is responsible for deciding on disputes arising from alleged breaches of general supply conditions.

The general conditions for the supply and consumption of electricity and natural gas determine, among other matters, also the framework structure of the supply contracts. Other aspects of the contracts are determined freely, and are reviewed in line 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. The Energy Agency cannot influence the formulating of the contractual provisions, i.e., the content of the contracts.



Distribution of heat is a local optional public service including the supply of heat or cold from the distribution networks, and the distribution-system operation. By way of heat distribution, the supply with heat, required for the heating systems in the buildings of the customers of heat or cold, is provided for.

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7.1 THE SUPPLY OF DISTRICT HEATING

In the Republic of Slovenia, 49 of 62 licensed companies involved in the heat supply were active in 2005. Of these companies, 41 were involved in heat distribution for the purpose of district heating, and heat production for the purpose of district heating of above 1 MW, six companies were only involved in the distribution, while two companies only produced heat for further distribution.

For the purpose of heat supply, 3534 GWh of heat and 4763 GWh of electricity were produced in 2005. The electricity was generated during the process of cogeneration. The largest share of heat – 1461 GWh or 41.3 percent – was used for the supply to 108,074 households, while 1211 GWh or 34.3 percent of heat was used for the supply to 2755 non-household customers in 33 municipalities. The difference between the produced and distributed heat, 862 GWh or 24.4 percent of heat, was used for the producers', or distributors', own use, and for covering the losses in the distribution networks. Non-households, i.e., industrial customers used 860 GWh or 24.4 percent of steam.



Heat consumption by type of customers and the customer numbers (Source: Energy Agency)

For the heat production, lignite was mostly used as a primary energy source; it had a 51.4-percent share. This was followed by natural gas with a 38.5-percent share, and residual fuel oil with a 5.1-percent share. Wood biomass, a renewable energy source, had a 4.2-percent share in the structure of primary energy sources used for the heat production.



In 2005 the largest five distribution companies supplied 83,540 households, or 77.3 percent of all households, distributing 82 percent of the heat consumed by these customers.



The largest distributors of heat to households in 2005 (Source: Energy Agency)



The largest five distribution companies supplied heat to 35 percent of all non-household customers, distributing as much as 81.6 percent of the heat consumed by these customers.



The largest distributors of heat to non-household customers (Source: Energy Agency)

7.2 THE DISTRIBUTION NETWORKS

The distribution networks for the heat supply are in 33 municipalities, and their total length is 622.7 kilometres. With respect to the type of distribution networks that are divided into the warm-water networks, hot-water networks, and steam networks, the warm-water distribution networks cover 33.5 percent of the total length of distribution networks, hot-water networks cover 62.3 percent, and steam networks cover 4.2 percent of the total networks. The municipalities with the most extensive networks are Ljubljana with 221.7 kilometres of the hot-water and warm-water networks, and Velenje, together with Šoštanj, with 179.2 kilometres of the warm-water network. Figure 71 shows the length of the heat distribution networks in individual municipalities, and the numbers of connected users.





Length of warm-water distribution networks by municipality, and the numbers of connected users (Source: Energy Agency)

7.3 THE PRICES FOR HEAT

The prices for heat in 33 municipalities supplied by 49 heat distributors are different. The retail prices for heat in Slovenia presented in Figure 72 have been calculated for a household with a connected power of 10 kW and an annual consumption of 34.9 MWh of heat.

tolars/MWh 10,000 Price with tax Price without tax 8,000 6,000 4,000 2,000 0 **FIGURE 72** January February March April May June

Average retail prices for heat in Slovenia for a typical household customer D_{3b} for January-June 2005 (Source: SORS)



7.4 THE TASKS AND ACTIVITIES OF THE ENERGY AGENCY

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

issuing general acts regarding the performance of the public authorities relating to:
a) the methodology for setting general conditions for the supply and consumption of heat from the distribution networks;

b) the methodology for the preparation of the tariff systems for the supply and consumption of heat from the distribution networks;

- giving approval to the system operation instructions;
- deciding on issuing and revoking the licences for the provision of the energy-related activities.

In order to gradually unify general conditions for the supply and consumption of heat, and to provide for comparable tariff systems for the supply and consumption of heat from the distribution networks for all the local communities, i.e., the providers of heat distribution, in 2005 the Energy Agency issued, after obtaining approval from the Government of the Republic of Slovenia, the following documents:

- The Act Determining the Methodology for Setting General Conditions for the Supply and Consumption of Heat from Distribution Networks;
- The Act Determining the Methodology for the Preparation of the Tariff Systems for the Supply and Consumption of Heat from Distribution Networks.

Both general acts were published in the Official Gazette of the Republic of Slovenia, No. 74/05, and came into force on 6 August 2005. The two methodologies provide for transparency, comparability with the other modes of heating, and the protection of heat customers.

Another important task of the Energy Agency is giving approval to the system operation instructions for the heat distribution networks that are issued, under public authorisation, by the heat distributors. The system operation instructions regulate the operation of the heat distribution networks.

In 2005 the Energy Agency issued five licences for the production of heat used for district heating of above 1 MW, and six licences for the heat distribution.

7.4.1 The Act Determining the Methodology for Setting General Conditions for the Supply and Consumption of Heat from Distribution Networks

This act determines the methodology for the preparation of general conditions for the supply and consumption of heat from the distribution networks, and the mandatory framework structure of such a document. The methodology provides for transparency of general conditions issued by the heat distributors, and they all have to be comparable with respect to their form and structure.

7.4.2 The Act Determining the Methodology for the Preparation of the Tariff Systems for the Supply and Consumption of Heat from Distribution Networks

This act determines the methodology for the preparation of the tariff systems for the supply and consumption of heat from distribution networks. The methodology determines the mandatory framework structure of the tariff systems for the supply and consumption of heat from distribution networks, and the elements of the accounts relating to the energy supplied to different customer groups with respect to the power, type and characteristic of their consumption, the quality of supply and other elements. With a tariff system, a heat distributor sets the tariffs for the heat supply, as well as a uniform and transparent mode of forming and using different account elements.

When producing a tariff system, a heat distributor takes into account the following objectives:

• an effective use of heat;

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- a reliable supply to heat customers;
- a supply with the heat of an appropriate quality;
- the protection of the environment;
- the protection of customers.

General conditions and the tariff systems for the supply and consumption of heat from distribution networks are prepared and adopted by the heat distributors for the areas in which they provide their local optional public service in line with the general acts. Prior to publishing these two documents, a heat distributor has to obtain approval from a relevant local authority, or the authority from Article 35 of the EA that reviews the general conditions, or a tariff system, with respect to their compliance with the above-mentioned methodologies.



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LIST OF ABBREVIATIONS

Borzen	Borzen, d. o. o.		
CBTC	cross-border transmission capacities		
CEER	Council of European Energy Regulators		
CHPSL	Combined Heat-and-Power Station, Ljubljana, d. o. o.		
CSL0eX	hourly index		
DPSM	Drava Power Stations, Maribor, d. o. o.		
DS0	Distribution System Operator		
DTS	distribution-transformer station		
EA	Energy Act (the Official Gazette of the Republic of Slovenia, No. 26/05 – the officially consolidated version)		
EEX	European Energy Exchange AG, Leipzig		
EFT	Električni finančni tim, d.o.o.		
Eles	Elektro-Slovenija, d. o. o.		
ELES GEN	ELES GEN, d. o. o.		
Energy Agency	Energy Agency of the Republic of Slovenia		
ERGEG	European Regulators Group for Electricity and Gas		
GDP	gross domestic product		
нні	Hirshmann-Herfindahl index		
HPS	hydroelectric power station		
HSE	Holding Slovenske elektrarne, d. o. o.		
ΗV	high voltage		
IBG	Istrabenz-Gorenje, d. o. o.		
LV	low voltage		
MRS	metering-regulation station		
MV	medium voltage		
NPSK	Nuclear Power Station, Krško, d. o. o.		
OP	off-peak tariff		
Р	power		
PP	peak-period tariff		
P+, P-	main imbalance price		
PS	public service		
pumped storage	pumped-storage power station		
RECS	Renewable Energy Certificate System		
RES	renewable energy sources		
RS	Republic of Slovenia		
SAIDI	System Average Interruption Duration Index		
SAIFI	System Average Interruption Frequency Index		

SL0eX	organised electricity market index
SORS	Statistical Office of the Republic of Slovenia
SPSL	Sava Power Stations, Ljubljana, d. o. o
SPSNG	Soča Power Stations, Nova Gorica, d. o. o.
STC	supply to tariff customers
т	tolerance
TPSB	Thermoelectric Power Station, Brestanica, d. o. o.
TPSŠ	Thermoelectric Power Station, Šoštanj, d. o. o.
TPST	Thermoelectric Power Station, Trbovlje, d. o. o.
TPS	thermoelectric power station
TS	transformer station
TS0	Transmission System Operator
UCTE	Union for the Co-ordination of the Transmission of Electricity
UNP	use-of-network price
W+, W-	energy imbalances in MWh





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